An innovation Movement open to all Italian schools which aims to create a network by identifying and supporting experiences that transcend limitations and inertia at educational, structural and organizational levels. Founded in November 2014 on the joint initiative of INDIRE and 22 founding schools which have tried out the so-called «Ideas», inspired by the Movement’s Manifesto and its 7 «horizons».

This is one of the Ideas which, from year to year, enrich and expand the Gallery of Ideas for Innovation, a place that gathers experiences verified in the field by an ever-growing number of Italian schools.
«Beyond the Disciplines» is a pedagogical-organizational framework which consolidates the passage from content education to competence-based education, arranged for the various types and levels of school with appropriate specifics but always with a focus on the development of cognitive, metacognitive, and transversal abilities. The approach is student-centred and supersedes the lecture-based model thanks to activity based on workshop practice fully integrated with the teaching curriculum in the normal calendar, if appropriate, compacted and/or reorganized. At the beginning of the year, a collective plan is developed, a study topic is chosen for the whole institute, and transversal multidisciplinary Learning Units are defined. This allows the realization of an integrated curriculum which is vertical for the three levels of school involved. It combines theory, practice and technique, and is embodied in the realization of projects that will build spaces of experience with a high motivational potential, of orientation, with the goal of promoting key skills by valorizing individual creativity through practical vocational workshops.

For the upper secondary, the workshops are the characterising element. The contents of the individual disciplines are oriented to the project to be realized through learning pathways integrated with both the scientific and humanistic areas, in which the students, in groups, carry out research, selection and evaluation of materials relating to realistic tasks designed to bridge the gap in the use of knowledge between school contexts and real-world contexts. This inductive methodology starts from experience and ends in representation and then generalization; it is motivating for young people and makes them autonomous in carrying out tasks and capable of assuming responsibility.

In all the experiments, an encounter with the local territory and the ‘outside world’ is key: this takes place through sharing of artefacts, whether materials and/or intellectual, produced by the young people, which represent challenging real-world tasks and bolster the self-assessment process and the development of the students’ talents and potential.

«Beyond the Disciplines», although finding specific grounding in «horizons» nos. 4, 5 and 6 [Reorganizing teaching/learning time: Reconnecting the know-how of schools and the know-how of the knowledge society; Investing in «human capital» by rethinking relationships (internal/external, face-to-face teaching/peer-learning, schools/companies, etc.)], is actually an Idea that cuts across the 7 «horizons» of the Movement’s Manifesto.
The theoretical benchmark framework

The Idea «Beyond the Disciplines» is based on an innovative type of curriculum design, capable of synergizing competence-based education, active workshops, and an ‘organized’ division of teaching time to operationalize each discipline. «Beyond the Disciplines» abandons lecture-based lessons, centring the work around ‘learning-by-doing’ and on workshop practices; in fact, the activities are based on motivational workshops which supplement the teaching curriculum and take place during the normal calendar.

«Beyond the Disciplines» is reflected in various pedagogical theories: the Situated Learning theory of E. Wenger and J. Lave, the Discovery Learning of J. S. Bruner; the Experiential Learning of J. Dewey and J. Piaget to the Communal Constructivism of J. Holmes; from the Zone of Proximal Development concept of L. S. Vygotsky to the concept of the Experiential Learning Cycle of D. Kolb and that of the Habits of Mind of A. Costa and B. Kallick.

Already by Dewey’s time, Workshop Schools were opposed to the lecture-based/reproductive lesson, centring the process around the students, who could freely express their own inclinations and take an active role. Today, the focus is even more on the cognitive process, on the relational and collaborative level, metacognitive significance, personalized learning and orientation. «Beyond the Disciplines» is therefore in line with the thinking of F. Frabboni, who acknowledges the workshop’s ability to stimulate an education based on research and self-learning, able to encourage motivation and the finding of answers and solutions to meet the various cognitive styles, as well as reducing relational difficulties and cognitive impediments among students who may find themselves at the margins of socialization and learning processes. Thus revealing its strongly inclusive and peer-teaching role. For M. Baldacci, the relevance of the workshop is the fact that it offers itself as a device for global scholastic innovation, which can be organizational, pedagogical and educational at the same time; in terms of organization, the workshop proposes a new model of learning spaces and times; in the pedagogical context it broadens the approach to socialization; in the educational context it encourages teaching based on research rather than on unidirectional, asymmetrical, ‘intransitive’ lessons. «Beyond the Disciplines» is also inspired by the Project Based Learning approach (J. S. Krajcik, P. C. Blumenfeld) which provides students with complex experiences oriented to a specific object or objective to equip them with the mental tools needed to cope with the complex ever-changing nature of the contemporary world.
Why you should adopt the Idea

«Beyond the Disciplines» was born from a need to define the function of schools with respect to the new educational needs of students, but also to overcome the rigidity and fragmentation of disciplines to enhance and restore citizenship to the competence-based curriculum; so that this can be realized at a multidisciplinary level, in some cases it has been deemed essential to reorganize the school timetable, giving it a new rhythm and a different management.

The education is characterized by projects which revolve around learning situations where knowledge of every discipline helps acquire cognitive tools that afford the student solutions to the problems of daily life. The competence-based education of «Beyond the Disciplines» aims to build real-world tasks: it takes place in workshops intended as educational spaces in which the disciplines are encountered and integrated, inspiring a comparison of the different languages. Through the workshops a global curriculum is implemented in which education becomes orienting and focuses on the operationalization of the discipline to support solid cognitive skills, pointing towards the development of "entrepreneurship".

An education by cognitive abilities which focuses on the construction of the students’ self by nourishing in them the perception of a school to be enjoyed as a place for 'learning-by-doing', one which manages to link study and life projects: achieved by means of concrete performance and experiences had 'in the field' that develop the capacity to learn and genuinely train for the world of professions, thus overcoming the educational gap between school and the world of work in terms of skills and preparation.

With «Beyond the Disciplines» the school opens up to the outside world and a confrontation with other situations – also very different from one another – obtaining from this important feedback on its work and countless ideas for creative reflection regarding future ones.
Example of an ‘Implementation Guide’ for the Idea

«Wiky Europa» is a workshop ‘space’ for the teaching of skills realized during school time addressed to all classes of the Comprehensive Institute, and that allows certification of each student’s skills.

The novelty lies in its being an educational workshop both in the production/implementation stage of the contents and in the phase of using the multi-level teaching support. «Wiky Europa» is a large geographical map which occupies the end wall of our Aula Magna, our lecture hall. The wall was painted over several months by a team of students from the junior secondary school, coordinated by an art and image teacher.

The surface of «Wiky Europa» was prepared with various layers of magnetic paint that allows it to be used as the basis for a jigsaw of the European Union with the shapes of the Member States drawn on magnetic sheet. All the classes work on the selection and collection of contents that range over every aspect of European culture and civilisation in each of their forms.

The materials, created in various forms, come together in an email address created ad hoc and are standardized and uploaded to a blog by a special editorial board consisting of junior secondary school students. At the Editing workshop, students learn to publish online content, organize a blog with labels and pages, and recognize the legal aspects relating to the intellectual property of the various contents.

The next step is the construction of links in augmented reality: the EU Member States are photographed, and each image is associated with the various contents produced for that particular country. In this way, a mobile app makes it possible to frame the various sections of the map on a smartphone and access the corresponding content uploaded to the blog.

The steps to create «Wiky Europa» can be summarized as follows:

1. Core Knowledge Curriculum Essentialism: in each disciplinary department, teachers identify the essential knowledge for each discipline.
2. Institute Planning: collective agreement on the Institute’s planning strategies.
3. Educational Planning: Council meetings program the Disciplinary Learning Units (to supersede those we call «technical know-how») and transversal strategies (skills workshops); each class of every type and level designs the LUs relating to «Wiky Europa».
4. Timetable Packaging: each teacher establishes how to distribute the weekly timetable to work on the LUs and transversal designs.
5. Restitution: the real-world tasks of all the LUs produced are presented at a final public event.
Actors/Roles

The Head Teacher. Proposes specific education schemes and facilitates the sharing of practices within the school. Coordinates the project charts, supervises the reorganization of the classroom and workshop timetables. Looks after collaborations with local schools and institutions, promotes relations with families by setting up events to present the educational pathways.

The Teacher. Mediator of knowledge, facilitator and organizer of the activities; prepares the learning environment in which to realize the problem-solving experiences oriented to the production of an artefact using active methods and blended learning. Works in a team implementing research-action projects and designs practical vocational workshops. The teacher is a counsellor who, from the nursery school onwards, assists with metacognition and self-knowledge. At the junior secondary, builds guidance packages along with the other teachers which help children in choosing future studies by compiling the appropriate portfolio. The final artefact ‘constitutes’ the resolution of the situation-problem (real-world task) on which the teacher bases the assessment.

The Students. Explore, carry out research, discuss, document, interact with the actors of the processes, realize an artefact in groups thinking of a common goal; they self-assess, share the outcome of their activities with the school community, and disseminate it outside.

The Family. Plays an active part in knowledge capacity-building. Parents are involved in the education and development of the children/students, each helping with their professionalism to create orienting lessons.

Others
Administrative, Technical and Ancillary Staff. The cooperation of every resource of the school is requested; everyone must know what is happening and contribute towards the success of the activities. The common approach is flexibility, both in terms of the school opening times, and duties which may range beyond ‘normal administration’.

Actors outside the school. Partners as promoters of events, willing to create synergistic relationships with the territory the school is a part of.

Spaces/Resources/Infrastructure (tips)

In the classroom or in other spaces of the school. Places suitable to house a rack to store the network apparatus. A router is also required to allow connection to the Internet and to run the school’s LAN/W-LAN network using Ethernet technology, plus a Firewall to manage and filter traffic for the authorized Web services.

Technological and infrastructural resources. A broadband wireless connection, devices (smartphone, tablet, laptops), IWBs, dedicated external devices, unified cloud-based services, an eLearning platform that allows sharing of digital resources and documents the project realized.

Layout of the environments. A setting that favours alternation of educational moments with diversified activities; environments with distinct, flexible spaces, welcoming and familiar, equipped with versatile modular furniture, able to accommodate a wide variety of situations. The environments must also be equipped to support open class activities.
Bear in mind that...

The Idea is applicable both to comprehensive institutes, in which there are students of every type of cognitive style and gnoseological and technical/practical intellectual dominance, and upper secondary schools.

The process of reorganizing the calendar is probably the most complex part and must reach agreement with the disciplinary curricula which must necessarily be lightened, with the teaching staff working on the founding nuclei of disciplines to avoid superfluity. Especially at the secondary level, diversification of disciplines and the number of teachers making up the class councils may increase fragmentation of the courses which, if poorly coordinated, risk being lost in thousands of rivulets without a precise objective.

In the realization of the educational activity, equally fundamental, beyond the intervention of the teachers, is that of the school’s partners and the secretarial staff: they see to the organization and care of the environments; they are concerned with internal/external communication and the publicizing of experiences and events; they cooperate in the search for active partners.

The motivational workshops are the main tool in certifying junior high skills (Min. Circ. no. 3 of 12nd February 2015, Experimental adoption of new national models to certify skills in junior high schools), but also for all other types of school, a privileged place for their development.

Why change?

• To supersede the content-based school in favour of the active school arranged in motivational environments which allow acquisition of the habit of study and research.
• To supplement orientation in the discipline, by strengthening the link between disciplines and professionalization.
• To reassess attitude as a dimension of competence that is often underestimated but is fundamental for the participation of the students in the course and in the acquisition of qualifications.
• To build a transverse curriculum around the concept of «entrepreneurship» as a key competence which links primary, junior and upper secondary levels.
• To retrieve the necessary relationship with families in knowledge capacity-building (to counter the «free school» approach).
Each Idea is a piece of a mosaic which aims to revolutionize the organization of teaching, and the time and space of ‘teaching/learning’; each Idea is the product of concrete experiences verified ‘in the field’. The Ideas present in the Gallery should not be regarded as ‘independent units’, but rather as the tesserae of a mosaic. A single Idea alone does not have the strength to ‘unhinge’ certain mechanisms that ‘hamper’ schools, which are often lost in red tape and disinclined to carry out experimentation and research; however, it can be a first step to break the inertia and a driver for change and ‘contagion’ between schools.

To join Avanguardie Educative a school needs to be in agreement with the inspiring principles of the Movement’s Manifesto and fill in the form available at avanguardieeducative.indire.it, entering the data of the institute and indicating one or more Ideas which it intends to adopt. The school can also propose an experience, an innovation experience that it has developed and consolidated: this will be analysed by INDIRE in collaboration with the 22 founding schools, to potentially transform it into an Idea or to add it to the Gallery as a deeper look at some Ideas already present in it. Membership gives right of access to the assistance/coaching platform which, in addition to supporting the school in implementing organizational and teaching practices oriented towards innovation, allows the school to follow and participate in webinars, workshops, talks, and face-to-face training activities. From the point of view of study and research, the objective which the Avanguardie Educative project has set is to support schools as they are changing in terms of education, structure and organization, while investigating possible propagation strategies and systematization of the innovation, with particular attention to enabling factors and any that hinder dissemination.

INDIRE’s channel on YouTube™ «Rendere visibile l’Innovazione» gathers and documents the schemes in action of the Ideas of the Avanguardie Educative Movement.

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Avanguardie Educative is also on the social channels FaceBook™, YouTube™ and Flickr™.

INDIRE is the Italian Ministry of Education’s oldest research organization. Since its foundation in 1925, the Institute has worked closely with the Italian school system, investing in training and innovation while improvement processes in schools. INDIRE is the benchmark for educational research in Italy.

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