

Section A

The ISOTIS

Virtual Learning Environment

THE CROSS-WP 3-4-5 THEORETICAL
AND METHODOLOGICAL FRAMEWORK
AND FEATURES OF THE VLE

Section B

Multilingualism and global
competence
in ECEC & Primary School
settings

This Report is organized in two sections:

SECTION A presents the cross-cutting frameworks and key-content transversal to the three intervention-study tasks (Task 3.4, 4.4, 5.4) related to the development, exploratory implementation and evaluation of the prototype of a Virtual Learning (and communication) Environment (here and on the VLE) in family, community and school settings

SECTION B presents the theoretical framework and the guiding principles specific of Task 4.4, the country report on the interventions carried out in the four countries involved (GR, CZ, IT, PT), the Pilot study conducted in the NL, final conclusions on the results and main recommendations for practice and policy.

Section A

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METHODOLOGICAL FRAMEWORK AND
FEATURES OF THE VLE

EDITORS: Giulia Pastori, Andrea Mangiatordi, Valentina Pagani

Section A, The ISOTIS Virtual Learning Environment

THE CROSS-WP 3-4-5 THEORETICAL AND
METHODOLOGICAL FRAMEWORK AND FEATURES
OF THE VLE

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EXECUTIVE SUMMARY

This section of the Technical Report D4.4 presents the cross-WP framework and key-content transversal to the three intervention-study tasks (task 3.4, 4.4, 5.4) related to the development, exploratory implementation and evaluation of the prototype of a Virtual Learning (and communication) Environment (here and on the VLE) in family, community and school settings.

The VLE was intended to support and enhance research interventions in several pre/school and community contexts. It encompassed three different Work Packages, each with its focus and target group (i.e. parents, children and teachers, as well as para/professionals and professionals in early childhood education, primary education, child and youth care, family support and social workers who are working with children and families).

The VLE was developed based on a common overarching conceptual framework, to contribute to a coherent and comprehensive support system for professionals, children and families from different systems perspectives and to encourage collaboration between sectors (e.g. early education and family support). This also allowed to develop synergies between the three Work Packages. Part of the VLE was designed and developed for all target groups, whereas other parts focused specifically on the particular stakeholder groups involved or on the specific objectives pursued in each VLE-related task. The VLE was designed to integrate various solutions to support communication and collaboration by providing multiple means of engagement, representation, action and expression, following the Universal Design for Learning principles. Besides the educational potential of the platform, its development allowed to shed light on potentials, shortcomings and possible problems that can be faced while developing technological solutions addressing linguistic superdiversity.

Conceptual and methodological framework

Chapter 1 illustrates the main objectives, the research process and the theoretical framework shared by the ISOTIS VLE-related tasks. A prototype of a digital platform was developed, piloted and evaluated, providing Virtual Learning (and Communication) Environments for parents (D3.4), focusing on activities to support engagement with the multiple language and cultural resources present in the lives of families from diverse backgrounds); for teachers and classrooms (D4.4), focusing on curricular activities to support multilingual development in early childhood and primary education), and for (para)professionals in family support, care and education (D5.4), focusing on professional development.

The theoretical and methodological framework common to WP 3, 4 and 5, flexibly adapted and integrated within each WP and each site where interventions were carried out, relates to two intertwined *process* and *content levels*.

At the process level, within the core theoretical framework of the Bronfenbrenner's bio-ecological model, the study adopted a *positive socio-constructivist approach* focused on: a) a *strength-based approach, including family cultural and linguistic resources* in order to innovate the learning practices of children and professionals and to create rich learning experiences at home and at school; b) *promoting agency* and active participation of all subjects based on valuing their cultural backgrounds, resources and identities; c) *sustaining meaningful and rich communication* within the community with all the participants involved in the research and the learning process; d) *raising awareness and knowledge* (of multiple languages, cultures, human rights, discrimination mechanisms) and promoting skills (in multiple languages and in critical thinking and establishing shared understanding).

A *design-based methodological research approach* was applied (presented in Chapter 5), consistent with the idea of basing the intervention on scientific knowledge and theories while prioritizing the promotion of a close partnership and collaboration between the researchers and the research participants thanks to a co-designed and co-constructed process guided by the researchers.

At a content level, the main underlying framework that guided the work across the WPs was the **Global Competence** framework (UNESCO, 2013, 2015; OECD, 2018; European Council, 2014) a wide framework that encompasses several dimensions and pedagogical approaches such as Human Rights Education, Intercultural Competence and Intercultural Education, Multilingual Education, Critical Pedagogy and Social Justice Education, Education for Democracy and reflective and active teaching methods.

The vle concept, structure, functions and interface.

Chapter 2 presents the VLE concept, structure and functionalities and the criteria for the design of resources, content and the graphical and written language characteristic of the VLE interface. The concept, structure and main integrated functions of the platform were defined throughout a long collaborative research process, that resulted in the identification of three main features of the VLE:

- a) a **repository of resources**: the ISOTIS VLE aimed at providing users with a repository of resources – including theoretical insights and information, observation guidelines for action and activities, using multiple media (14 videos were produced by the ISOTIS team) and multiple communication channels. In general, The VLE intended to support stakeholder teaching and learning, by facilitating processes for sharing, reflection, documentation and communication. The structure of the VLE and its content reflected a methodological approach and an idea of education professionals that combines theoretical details of educational topics with contextualized observations and grounded reflections about educational practices. Road maps and action lines were drawn by and inferred from existent operational suggestions, as well as observing real

individual children and families and listening to their perspectives and experiences were the priority in order to design educational activities.

The resources were organized into seven main courses: Participation & Democratic Life; Promoting Multilingualism in The Classroom; Promoting Multilingualism in The Family; Promoting Second Language Learning; Promoting Intercultural Sensitivity; Social Justice & Human Rights; Family & School Partnership. A final section was specifically dedicated for professional development activities in connection to the listed topics (Professional Development Activities).

- b) A **social networking infrastructure**: embedded digital tools facilitated communication and exchange through pages that adopted typical social media layouts, featuring multilingual support and offering a shared collaborative workspace for professionals, children and parents, fostering the creation of 'communities of practice';
- c) A **space for designing and documenting**: a professional could store materials, applications they wanted to propose or collect the documentation related to the activities implemented (in a class, with a child, a group of children or parents ...)

A key feature of the VLE was the **multilingual accessibility of the VLE interface and content**, in many languages, included the ones spoken by the research participants, to mirror the kaleidoscopic, multilingual European society and to give value (in some cases only symbolic acknowledgment) to as many languages as possible: the VLE interface and Privacy policy information were made available in 32 languages, part benefiting from Moodle pack language translation, part provided by professional translators; almost all the 14 ISOTIS videos were translated into 30 languages; support for the Romani language was added as a new language pack during the project including three dialects (Romani Čhib, Romani Prekmurje, and Romani Romungro).

Language accessibility was also provided by the integration of embedded **digital tools to support multilingualism and accessibility** within the VLE platform. A character, a robot-bee named **Beeba**, acts as the linguistic and accessibility mediator in the VLE and is a structural part of the platform. She appears on all pages and provides essential services: selection of the interface language of the VLE, text-to-speech synthesis in multiple languages; a multi-layout virtual keyboard to facilitate writing in different alphabets; a translation system to support users in reading and writing (due to resource constraints, the free Google translate application was integrated into the Beeba-tool); and options for changing text size and colour scheme in order to maximize readability.

Technical features, user journeys, profiles and accessibility, data management and privacy policy

Chapter 3 presents the technical features of the VLE in detail, explaining how the various user roles were conceived, as well as the related permissions and functions. The platform was designed to be used by a highly varied groups of participants, with specific

features for teachers (i.e., the possibility to access/remix/reuse educational resources) and a strong focus towards horizontal interaction, by the means of a social networking infrastructure. The VLE integrated different kinds of tools that were specifically selected to support the needs of a multilingual user base, such as text-to-speech, automatic translation, virtual keyboards with different layouts.

The chapter includes a presentation of the design framework adopted and implemented, with a strong focus on accessibility. The main theory guiding the design process was Universal Design, which is geared towards the inclusion of differences since the beginning of a project. Functionalities were initially conceived on the basis of proto-personas, a lean User Experience Design methodology that encourages a user-centered approach. Qualitative user experience evaluations were also performed on the first prototype, adopting a task-based, think-aloud protocol. The data gathered during the pilot is presented, together with an explanation of how it was used in order to guide each design iteration.

In **chapter 4** we describe the VLE data management procedures, along with the Privacy Policy and Data Protection regulations, which were critical to the development of the pilot.

The research methodology, the monitoring and evaluation system

The methodology adopted in the VLE interventions was the Design-Based Research methodology, *“a systematic but flexible methodology aimed to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually-sensitive design principles and theories”* (Wang & Hannafin, 2005:6). DBR was considered particularly suited to ISOTIS interventions, as it is aimed at understanding how, when, and why educational innovations work in practice, and based on researchers' and practitioners' collaboration to design and study interventions that solve practical problems in real, authentic contexts (Amiel & Reeves, 2008:34). Innovative and valuable characteristic of DBR was considered its balanced framework drawing on different research traditions, such as Ethnography, Action Research, Formative Evaluation, and Experimental Research.

Chapter 5 details the methodological approach, the logic and the workflow of the interventions, that included a first phase of ethnographic exploration aimed to deeply understand the characteristics of the local contexts involved in the research and to establish a strong collaboration between researchers and practitioners, essential to the following steps of co-designing and implementing activities through iterative cycles, collecting observations and feedback from all the research participants (children, parents, and teachers) and providing formative evaluation through all the process of work.

Chapter 6 illustrates the monitoring and evaluation system regarding the use of the platform and the related final cross-WPs results. In order to provide a coordinated overall evaluation of the VLE, a monitoring and evaluation system common to all the partners involved in the three WPs was proposed, integrating each WP and partner local initiative.

The monitoring and evaluation of the VLE was conducted in relation to three data sources, integrating quantitative and qualitative data collection and analysis: quantitative data collection and analysis drew on VLE data reporting and logs (in Moodle a built-in logging functionality for the tracking of almost every single user action automatically produce reports on a per-user or per-course basis.) and on usability and interest scales administered to users (System Usability Scale and the Net Promoter Score, <https://www.usability.gov/how-to-and-tools/methods/system-usability-scale.html>); **qualitative** data on user opinions were collected through focus group and individual interviews, using a semi-structured interview guideline.

The System Usability Scale and the Net Promoter Score questionnaire was administered to the practitioners who tested out the environment during sessions led by ISOTIS Researchers (N=16). The results falled at the 15th percentile, a sign of low acceptance among the professionals who were involved, especially related to the complexity of the system, while the most appreciated aspect of the platform was the well-integrated functionalities.

Overall, the qualitative evaluation seemed to suggest that participants attributed good potential to the VLE, such as the access to a bank of resources for practitioners to share and improve hands-on, in a grounded way, in the field; the possibility to create documentations of home or school activities – capturing linguistic and cultural elements, and to share them for further reflections; the chance to enhance family-school communication and collaboration, with more symmetrical relationships between parents and educators; the potential to manage and partly overcome some language barriers, by resorting to audio-visual presentation resources and available multilingual function; the motivating and engaging influence on students exerted by the digital platform, its positive impact on children’s participation, and the response it got from them; the possibility to expand the teaching and learning time outside the boundaries of school timetables, especially for disadvantaged students; the possibility to have an environment to build a learning community among children and professionals. The functions offered by Beeba, the linguistic accessibility graphic/animated mediator embedded in the VLE, were appreciated and used in order to translate, write and read texts aloud in different languages.

The VLE, therefore, offered interesting and valuable functions and content and was depicted as a high potential affordance for different groups of users, but its overall usability was far from optimal. It will be crucial to improve both its interface and its structure to make it more intuitive and straightforward. A second iteration of the platform is currently under development, new data collections based on these same scales will allow comparing future usability scores to measure improvement.

Recommendations and lessons learned

The interventions highlighted some valuable lessons and allowed the research team to collect some recommendations for future work. The main points, common across the different users and contexts, highlighted how crucial is: - to provide applications smartphone compatible (specially to reach out parents), that could integrate with other advanced and well-known communication tools (i.e. WhatsApp), and in general requiring the lowest possible level of technical skills and equipment; - to make time for practitioners to learn about the system and practice working with it, as well as for understanding how to work with parents and children; - to consider how involving children to engage parents and teachers, considering their use of the VLE in the school context to develop engagement and digital competence (children demonstrated a very positive attitude towards ICTs and, to overcome possible teacher resistance towards ICTs, children can be drivers of change and play a bridge role, helping teachers and parents to approach and see the potential offered by new technologies); - to use multilingual, multimedia digital support for providing inclusive and multilingual learning and communication environments, for improving the communication and bi-directional exchange between family and school, and communication between teachers, children and parents.

Section B

MULTILINGUALISM AND GLOBAL COMPETENCE IN ECEC & PRIMARY SCHOOL SETTINGS.

Report on the ISOTIS Virtual Learning Environment development and implementation in four countries to innovate inclusive and effective curricula and pedagogies.

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SECTION B

Multilingualism and global competence in ECEC & primary school settings.

REPORT ON THE ISOTIS VIRTUAL LEARNING ENVIRONMENT DEVELOPMENT AND IMPLEMENTATION IN FOUR COUNTRIES TO INNOVATE INCLUSIVE AND EFFECTIVE CURRICULA AND PEDAGOGIES.

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EXECUTIVE SUMMARY

Introduction

The ISOTIS project addresses challenges raised by the cultural and linguistic *super-diversity* of our European society connected to sustained immigration. Europe's education systems are in the centre of this super-diversity and while they are acknowledged as a key driver of the economic and social integration of immigrants and their offspring, educational opportunities for children still strongly depend on family origin. The success of children from immigrant and cultural minority groups at school is not only related to their attitudes, socio-economic status and prior education, but also to the quality and receptiveness of the education system.

Applying a Bronfenbrenner's bio-ecological model (Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 2006), which was the overarching framework of the ISOTIS project, ECEC and school contexts are microsystems that have relevant, direct influence on children's development, learning and well-being. They are key settings in the child *educational niche* that can contribute to reducing educational and social inequalities, succeeding in enhancing both cognitive and non-cognitive skills (Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 2006), helping students and families with an immigrant and minority ethnic backgrounds integrate into their communities, overcome adversity and build their academic, social, emotional and motivational path as well as grow up multilingual and multicultural, promoting key competencies of citizenship in all children globally.

The framework

The VLE Task 4.4 interventions aimed at contributing to identify guiding criteria, strategies and practices, supported by the implementation of ICTs in order to innovate curricula and pedagogies in pre- and primary school settings. Interventions focused on the system of relationships among the social actors at the intervention sites (teachers, children, parents) and worked on the proximal processes in the immediate micro-system of the children, namely classrooms, directly involving the main social actors, children and teachers, introducing selected, co-designed experiences to work on Global and Intercultural Competence, multilingualism and language awareness, and in some cases involving also parents, aiming to bridge children's experience between home and school, valuing family resources, including them more in school children's experiences and strengthening the partnership and collaboration between teachers and families.

As illustrated in Chapter 1, the theoretical framework at a methodological level made reference to the **Design-Based methodology** (see also [Report 4.4 – Section A](#)) and at

a content level made reference to the **Global competence** theoretical construct as it has been developed and used by several international organizations (UNESCO, 2013, 2015; OECD, 2018a; Asia Society/OECD, 2018; European Council, 2014) referring to a wide range of *knowledge, values, attitudes, skills* and ‘*take action*’ initiatives from a basic Human Rights perspective and valuing cultural diversity as the foundation for Global Competence. It is a multi-faceted concept that comprises cognitive development, socio-emotional skills and civic learning, crucial for the professional development of professionals who deal with children from different linguistic and cultural backgrounds, different socio-economic family conditions and who are engaged in training active and aware citizens. It encompasses several dimensions and pedagogical approaches such as **Human Rights Education, Intercultural Competence and Intercultural Education, Multilingual Education, Critical Pedagogy and Social Justice Education, Education for Democracy** and reflective and active teaching methods, adopted in the Task 4.4 interventions.

A main component of interventions was the **use of technology** (the ISOTIS virtual learning environment - <https://vle.isotis.org/>, see Report 4.4 – Section A) to provide teachers, children and parents a digital enhancement of educational and communication processes, and to involve them in co-creation processes for developing content using the cultural and linguistic resources of children, families and communities.

Set within the key-general cross WP VLE framework criteria and aims (*raising awareness and knowledge; promoting agency; valuing resources and sustaining collaboration and communication*), Task 4.4. interventions pursued some general objectives, adapted in each site according to the local context: -connecting and bridging home and school children’s linguistic and cultural experience, making them visible, legitimate and valued as part of a multilingual and multicultural community; - promoting the intercultural competence of teachers and children in dealing with diversity, appreciating differences and commonalities; - promoting positive attitudes and ideas regarding all languages and cultures as equal, deconstructing stereotypes and power relationships; - soliciting the acknowledgement of equal rights and social justice and promoting democratic values, attitudes, skills and behaviours; - enhancing digital competence and increasing the use of positive technology.

The intervention cases

In this report we present and discuss design, implementation, and findings of the design-based research studies carried out in four European countries (Italy, the Czech Republic, Greece, Portugal) in Early Childhood Education and Care and primary school

classrooms (age range 4 -12ys), aimed to increase and innovate curricula and teaching approaches regarding multilingualism, cultural diversity, social justice and human rights, to promote *Global – intercultural competence* and language awareness in all the research participants (teachers, children and parents).

While chapter 1 describes the theoretical framework and the guiding principles, the main aims and goals shared across countries, the research methodology and procedures, and the monitoring and evaluation system (also illustrated in D4.4 – Section A), **chapters 2 to 6** illustrate the country report on the interventions carried out in each country, starting from the Dutch pilot study followed by reports in the sequence order of the beneficiary list in ISOTIS (IT, PT, GR, CZ).

Within the common conceptual and methodological framework, each country team tailored the VLE-supported intervention to the local characteristics and needs of the sites.

- The *Dutch team* carried out a two consecutive years of pilot work in a kindergarten section in a primary school in The Hague and the study has some specific features that differ from the four VLE-supported interventions. The work - aimed to pilot the design and execution of several activities relevant to an Intercultural Education perspective in a multicultural context - can be considered as an exploratory work for the WP4 VLE interventions.
- The *Italian team* carried out the VLE-supported intervention in a preschool and in a primary school located in a highly diverse neighborhood of Milan (Northern Italy), where a high percentage of children and families were from North Africa (Egypt, Morocco - relevant as a target group), focusing especially on Multilingual and Language Awareness Education and on the Children's Voice approach, in synergy with the WP2 Children Study (Task 2.4).
- A similar research design in terms of topics and approaches (Multilingualism and Children's Voice education) was adopted in the *Czech Republic*, where the research team worked in three primary schools, two in Brno and one in Ústí nad Labem, hosting a large population of Roma children and families (target group). Also in this case there was a synergy with the WP2 Children study, represented the initial part of the intervention, involving children in collaborative research.
- The *Greek team* made reference mainly to the theoretical background of Critical Multicultural Citizenship Education, emphasizing a focus on democracy, critical thinking, the deconstruction of stereotypes, empathy and multilingualism, working in a primary school in Evosmos and in a kindergarten in Sykies in Western Thessaloniki, selected in an area characterized by a high percentage of immigrants and ethnic minorities, social inequalities (target group) and the increasing presence of refugee families.

- The *Portuguese team* selected two public schools located in the Porto district, implementing an innovative curriculum and educational practices focused in one site on economic inequalities and Social Justice Education, in the other on multiculturalism.

Findings and recommendations

A **final chapter** discusses some key lessons learned from the analysis of the documentation and data collected before, during and at the end of the implementation phase in all the countries. All country reports provided an evaluation of the interventions in terms of results and coherence with the adopted framework. The aim of the monitoring system conducted using several qualitative instruments before, during and after the intervention, provided rich documentation on short-term impacts and the research participants' perceptions and evaluation of the ISOTIS project. Collecting feedback from all the research participants, all the studies provided evidence that the interventions conducted were generally successful in terms of goal achievement and coherence with the framework, while they also discussed the limitations and the main challenges encountered for the full achievement of general and local objectives with a generative analysis of reflections useful for future experiences in this field.

The main lessons learned from these experiences of curriculum innovation and educational practices supported by the use of the ISOTIS platform, were examined in relation to the model adopted in the methodological and pedagogical framework at the different levels of the ecological system, from the microsystem (most involved) to the macro-system, and in relation to the three main spheres of 1) the innovation of inclusive curriculum and pedagogies, and 3) the use of ICTs to innovate teaching and learning practices and communication. 2) the intervention methodology and process

The innovation of inclusive curricula and pedagogies

The research design had a clear methodological and theoretical framework that incorporated some of the key recommendations, and success features, facilitators and obstacles of innovative promising interventions, provided by previous work in WP4 (D.4.2 Aguiar et al., 2018; D4.3. Aguiar, Silva eds, 2019).

The ISOTIS interventions promoted a *strengths-based curriculum concept* and pedagogical approaches based on the resources of all stakeholders, including children and families with diverse racial, ethnic, cultural, linguistic and social class backgrounds. This resource-based approach was appreciated by all the stakeholders and represented

a successful feature. The framework and the implementation of the interventions highly recognized the *social role of children* and promoted *interpersonal relationships* by actively involving children in decision making and sharing their resources, also in the early years at the preschool level, allowing them to share personal stories, information about their country of origin and their first language. The implementation of *equity pedagogies*, proposing a socio-constructivist approach and cooperative learning strategies to promote meaningful learning, enrich socio-emotional interactions with cognitive acquisitions was included, balancing cognitive, academic, and socio-emotional skills and outcomes and supporting positive contact. Experiential learning, such as role-playing or video and multimedia production, drawing or writing songs or poems or organizing exhibitions shared with parents on the VLE, were also proposed on purpose.

The analysis of the four intervention reports allowed to deepen some reflections on the key features of the interventions, specially at the microsystem level: **the centrality assigned to the experiences of children** (and families) proved to be of great importance in the intervention and for the construction of experiences to foster intercultural dialogue and the enhancement of the linguistic and cultural repertoires of the children; **conversational practices resulted as key competences for teachers**, as the approach based on experiences required authentic competence in promoting interaction and communication between children, with the teachers being open to listening and exchange; **engaging children as reliable informants in open debates** was one of the aspects most appreciated by children, and **engaging them as researchers and action takers**. These aspects were closely linked: children were not only given voice from being able but also actively engaged in collaborative research and problem solving, with the commitment to make proposals and implement them. Children also appreciated of **having a voice in their mother tongue**. Most of the intervention projects within T4.4 referred to the perspective of Language Awareness, to promote the enhancement of languages and cultures of origin in the school in a form integrated with the school curriculum. This approach generated new behavioural modalities among children within the school context. The children progressively manifested naturalness in expressing their own language skills and curiosity about those of their classmates. In many contexts, the enhancement of mother tongues encouraged children who were usually silent and less involved in discussion in class or in collaborative activities, to become involved and dynamic, expressing their desire to share their history and the language or languages spoken in the family, feeling proud of them. This work on languages also encountered difficulties in few cases, when children from different cultural linguistic backgrounds (including Romani-speaking children) preferred not to expose themselves and not to declare if they spoke languages other than the national language.

Some key lessons and policy recommendations related to the innovation of inclusive curricula and pedagogies, drawn from the analysis of the interventions conducted in the four countries, regarded:

- The essential centrality of the children's experience as a starting point to create intercultural dialogue and shared knowledge, from the early years, meaningful to the children and close to their life: an '**emergent intercultural and multilingual curriculum**' can be elicited and promoted listening to children's experiences, knowledge (even if partial) and elaborations, socialized through school experiences with the teachers and the class group.
- The importance of **involving families** in sharing resources and knowledge in a systemic generative way for positive effects on the families' and children's participation, motivation and enjoyment.
- The crucial role played by teacher's **conversational practices** and communication skills in engaging children in open dialogues, sharing life experiences, exploring and meta-reflecting on the diversity emergent from their experiences.
- In connection to this, it is crucial to provide children of all ages with **true opportunities for open dialogues** with teachers and peers, to express opinions without being judged or evaluated, enjoying the exploration of complex topics connected to the real world.
- The value of considering **children as reliable informants**, researchers on their life experience and on societal and real world issues, engaging children in authentic learning and raising their motivation and enjoyment in learning.
- The importance of supporting **children's collaboration in decision-making process and taking action**, in order to motivate participation so that children experience democratic values and attitudes starting from the early years, and to **cultivate the hope of being agents of change**.
- The crucial importance of providing professionals with concrete and well documented curriculum implementations to make visible **the integration of main school learning with Global Competence, Intercultural and multilingual education**, transversal to all disciplines, not limited in time and disconnected from the rest, in order to overcome resistances to change.
- Specifically in reference to multilingual education, it is relevant to reinforce **the importance given to a socio-linguistic approach** in school curricula and pedagogy, guiding teachers in considering their crucial role in fostering positive emotions and ideas about all the languages present in the class, affecting children's relationships with their language repertoire and their cultural heritage.
- The crucial importance of providing professionals with concrete and well documented curriculum implementations to make visible the **virtual interplay of socio-**

emotional, cognitive and academic acquisitions enacted by active, socio-constructivist and cooperative practices, to facilitate the true valorization of soft skills at school.

- An inclusive context can be built progressively, posing **widespread attention throughout the school day on the relational and discursive modalities with children**, the use of words, in order to create a coherent social climate, and posing a careful/thoughtful attention to the spaces and materials present at school. The visibility of the presence of languages and cultures in the school space creates a coherent and fair context, able to facilitate the socialization of cultural and linguistic knowledge and reflections connected to them and avoiding feelings of discomfort by asking children to talk about linguistic or cultural differences

The use of ICTs to innovate teaching and learning practices and communication.

The ISOTIS VLE, in task 4.4, meant to provide teachers and children a digital “enhancement” of educational and communication processes, adapted to the local context, not a “digitization” of traditional teaching and communicating, for which co-creation processes for developing content using the cultural and linguistic resources of children, families and communities were essential. The platform, its functions and content resources were designed to be consistent with the ideal of active teaching children, through active engagement and through avoiding reduction of the learning experience to a simple “digitization”. The implementation and use of the VLE was meant to strengthen the teacher’s role as a coach in the development of the children’s work-in-progress during the various cooperative practices, and to boost the learning and communication experience of the children digitally, through a “multi-code” language, which could enhance students’ multiple skills with new learning opportunities.

Though the use of the VLE resulted complex and unintuitive to use, specially for teachers and parents, it played also a positive role: in use with children, facilitating research, organizing information and exchanges among actors; promoting children’s motivation and interest to learn more about the topics addressed by the project, but also regarding other curricular topics; promoting active student participation and interactions between peers and the working group also at distance; promoting learning through play and usage of ICT, promoting communication and interactions between children and teachers enriched by the noticeboard-based distance communication system; promoting multilingual communication and the exchange of multilingual materials; in use with parents, contributing to enhance family-school communication, making teachers find and

experiment with new modalities to engage and communicate with families and acquire a more critical, reflective stance in their way of valuing families.

While it resulted paramount to make the overall structure and interface of the platform simpler and more intuitive, so as to favour more active, gratifying and autonomous use by teachers, children and parents, and to provide even more translations of the interface and contents, some key positive points **regarded the work process with professionals and children in using ICTs**. The potentialities of the VLE platform to raise student motivation, interest and participation while allowing for the development of digital competence, were acknowledged also by teachers who started see the VLE and ICTs in general as an asset of the teaching and learning processes and of the social climate, and feel the need to develop skills and to be supported by the ICT equipment at school, or professional development. Children demonstrated a very positive attitude towards ICTs and, to overcome possible teacher resistance towards ICTs, it may be useful to consider the parallel involvement of children, who can be driver of change and can play a bridge role, helping teachers (and parents) to approach and see the potential offered by new technologies.

When teachers struggled with time and an overloaded work scheduled, close support and collaboration of the research team with teachers was necessary and enabled the usage of the VLE. An initial step in close collaboration with the team seems to be necessary, together with structural conditions (e.g. time) for teachers to explore the platform and use it autonomously. In this regard it is important to plan an extended time to let professionals (& parents) familiarize with the VLE. While it can be helpful to provide some demonstrations/tutorials to show them the possibilities that the VLE provides, it is nonetheless crucial to let them explore its functions at their pace, to develop autonomous use.

The main lessons learned and the recommendations for practice and policy, in the use of ICTs to innovate teaching and learning practices and communication, are the followings:

- The great potential of using a multilingual, multimedia digital support to improve communication and bi-directional exchange between family and school, to increase communication among children, between children and teachers, children and parents, children, teachers and parents, children and School Director.
- The symbolic value of a multilingual digital tool such as the VLE as part of the school experience, providing visibility of languages and legitimating them.
- The great potential of ICTs to engage children, increase their participation in accomplishing typical school activities such as reading and writing.

- ICT tools, such as the VLE, can foster children's motivation and interest, especially using guiding criteria aimed at fostering cooperation, networking, sharing etc. and a blended approach open to offline and online solutions.
- The importance of providing simple, easy digital tools to lower the skill requirements, both in reference to teachers and parents, to favor more active, gratifying and autonomous use.
- The importance of dedicating time so that professionals & parents can familiarize with the adopted digital tools, the VLE, by providing some demonstrations/tutorials to show them the possibilities that the ICTs provide and let them explore the functions at their own pace.
- The key role potentially played by children by involving them in the use of ICTs to help teachers approach and see the potential offered by new technologies.

The intervention methodology and process

All interventions involved the teachers in a closely collaborative research process, also aimed at building teacher group collaboration. The collaboration of the research team with the teachers included efforts to support professionals, striving to reinforce teacher knowledge, values, beliefs and commitment to children's (and families') respectful inclusion, viewing themselves as agents of change towards inclusion and social justice. The intervention process was organized in few main work phases: from an exploratory phase of getting to know the context, to a co-design phase aimed at defining the activities according to the features, interests and needs of the local context, with a monitoring system throughout the work process that led to a final evaluation involving all the stakeholders. With regard to collaboration with teachers and the work process some key lessons regard the following points:

- The relevance of starting from the in-depth exploration of the context as a key foundation of the intervention in order to gain familiarity with the local environment, collect meaningful data and address problems and topics relevant to the local stakeholders.
- The relevance of proximal tutorship and coaching in supporting teacher professional development.
- The importance of combining references to a clear theoretical framework and concrete proposals.
- The great potential of involving teachers in research-oriented processes to provoke change in beliefs and attitudes.
- The key role of the School Director as part of the intervention and collaboration during the process, valuing efforts and supporting the coordination of the teachers.

- The importance of 'mapping' the local school culture related to inclusion, diversity, multilingualism, progressively letting the contradictions and the implicit different views (when present) emerge, to highlight the gap between the declared pedagogy and practice and the actual situation.

INTERNATIONAL REPORT TASK 4.4

ISOTIS

**INCLUSIVE EDUCATION AND SOCIAL SUPPORT
TO TACKLE INEQUALITIES IN SOCIETY**



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