

Education 4.0: Collaboration to Engage, Include and Enhance – Edu4Col@b

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Abstract

The Continuous Training Division of the Regional Directorate for Education, fulfilling its mission of developing teaching professionalism, through continuous training, located in a metamorphic perspective with a view to improving the learning of all students and promoting the process of gradual transformation of the organizational and pedagogical Dialectics of teachers' work, Develops the project Education 4.0: Collaboration to Engage, Include and Enhance, acronym Edu4Col@b, within the framework of the Erasmus+ Programme of the European Commission. This project obtained a rating of 93 % and integrates 4 of the 5 schools in the Autonomous Region of Madeira, which operates in “vertical grouping” (from childhood to secondary education), which opted to join the KA1 Consortium, constituted in application under Key Action 1 of the Erasmus+ programme. Edu4Col@b falls under three key areas: Strengthening equity and inclusion in education; modernisation and innovation of pedagogical practices and tools; internationalisation of organisations. As part of the project, 92 mobilities of different types taken place, including structured courses and training events, job shadowing activities and teaching missions. Edu4Col@b aims to contribute to schools being places for training and building knowledge in context, where collaboratively and cooperatively work in flexible and multifunctional spaces and time, so that the curriculum is accessible to all and to each one. It is also Believed that the dissemination of learning represents an “oil stain” effect for other schools in the Region, representing a “cluster” for innovation.

Keywords: Erasmus+, Continuous Training, Teaching Professionality

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Introduction

Erasmus+, the European Commission's Education, Training, Youth and Sport programme, under the motto 'Enriching lives, broadening horizons', provides a range of opportunities for its audiences in the field of individual mobility, cooperation between organisations and institutions, support for policy development and cooperation between 2021 and 2027. The Regional Secretariat for Education, Science and Technology (SRE), through the Regional Directorate for Education, the regional public administration body that coordinates and monitors the curriculum development in schools of the Autonomous Region of Madeira (RAM), created the Education Project 4.0 - Colabor@r to Involve, Include and Power, acronym, in Consortium. This project, approved by the Erasmus+ National Agency Education and Training with the number 2020-1-PT01-KA01-078173 in Call KA1 of 2019, with a rating of 93 %, was expected to be implemented between November 2020 and October 2022. However, it ended until 31 October 2023 due to the impossibility of carrying out mobility during the COVID-19 pandemic lockdown period.

Underlying the conviction that "The task is not to make the impossible possible, but to make the possible attainable" (OECD, p. 56), Regional Directorate for Education launched the challenge to five schools, which vertically brought together various levels of education and education. Of these five schools, four accepted the challenge, with three of them bringing together all the levels of education and teaching in the localities where they are inserted. It was in this scenario that the European Development Plan (EDP) was built, which describes the objectives of the Consortium and its members and explains its relationship with the needs of the organisations involved and the contexts in which they operate. The European Development Plan is therefore a guiding document and was a fundamental contribution to the mapping of the path taken, in order to improve and deepen the professional knowledge and skills of the entire community involved, based on the decisive role that top and intermediate management play in the whole process. Therefore, seeking to define this path, Edu4Col@b was based on three key areas: strengthening equity and inclusion in education; modernisation and innovation of pedagogical practices and tools; internationalisation of organisations. In this sense, the activities carried out in the scope of the project, namely the structured courses, job shadowing activities or teaching missions were framed in these dimensions, thus seeking to respond to the identified needs, resulting in an understanding of the contexts where best practices occur, in the certainty that this understanding contributes, not only to reinforce leadership and facilitate the construction of an identity matrix of each school, but to support more effective and appropriate educational options for students.

Betting, above all, on collaboration, at all levels, on the decision-making power and influence of each participant in managing change, Edu4Col@b' European Development Plan aimed to assume that schools are places for training and building knowledge in context, in which teachers and students are people, where we work collaboratively and cooperatively in flexible and multifunctional spaces and time, so that the curriculum is accessible to everyone, in their diversity, and success is not a variable, but a fixed value, because it is believed that everyone can learn. However, the Regional Directorate of Education, as responsible for the pedagogical coordination of schools in the Autonomous Region of Madeira, has been on a path that has often been in the national scene, of anticipation of some educational policies. It is understood, therefore, that alongside other projects developed, such as the implementation of the Full Time School, the integration of all children into the education system, from the age of zero, the generalisation of the foreign language in the 1st cycle of basic education and in pre-school education and, more recently, the generalisation of Digital Manuals to all

students, starting from the 5th year of schooling, in public schools, the project Edu4Col@b represents a significant investment in innovative projects and promotes the educational success of students, along with the conclusion of partnerships with regional, national and international entities, thus contributing to the alignment of the Regional Directorate of Education with the most current international and national educational policies. In addition, it gives consistency to the next step in this evolutionary path towards the improvement that will necessarily be internationalisation, as a way of imbuing both public administration and schools, with what is most innovative in a European context. On the other hand, in pedagogical and didactic terms, it became clear the gain of associating schools with the KA1 project in a consortium, since it is understood that the overall involvement of these schools will function as a “cluster” for innovation and that it will translate into a transfer of learning, as if it were a laboratory or “oil stain” to other schools in the Region.

Consortium

Of the 96 public schools in the Autonomous Region of Madeira, only 5 operate in a “vertical grouping” (from childhood education to secondary education) and, of these, the following have actually chosen to join the KA1 Consortium, constituted by application under Key Action 1 of the Erasmus+ programme:

- Basic School of the 1st, 2nd and 3 rd Cycles with Pre-School of Porto da Cruz;
- Basic School with Pre-School of Santo António and Cural das Freiras;
- Elementary school of the 1st, 2nd and 3 rd Cycles with Pre-School Bartolomeu Perestrelo;
- Basic and Secondary School with Pre-School and Childcare of Porto Moniz.

Each of the schools of the Consortium brings together all the levels of education and teaching of the localities where they are inserted, with the exception of one, acting as an essay of new processes and practices, framed in the key areas of the project and capable of network transfer to a broader context, regional, national or even international. We believe that the fact that the Consortium schools have various levels of education and teaching can enhance, for example, transitions, and bring new opportunities for collaborative work to all professionals, in order to generate a new look at the student, in his individuality and in his path. It was also our ambition that the effects of the Consortium, through the adoption of new processes and practices framed in the key areas of the project, are transferable, in a network, to a broader context and that they are prolonged in space and time, affirming their sustainability by the impact of the learnings carried out and the models experienced, among the other schools of the Region. After the constitution of the Consortium, needs were surveyed.

Needs Assessment

Thus, in the Regional Directorate of Education, an internal survey was used by each of the Organic Units, through working meetings with coordination and using various means, including a platform for networking in the information systematisation phase. Reference should also be made to the use of the management tools of this regional directorate, namely (i) Annual Activity Plan; (II) Annual Activity Report; (III) Evaluation and Accountability Framework; (iv) SWOT Analysis.

To understand the needs of each of the schools, depending on the Consortium as a whole, a meeting guided by the Regional Director of Education was held with the Chairmen of the Executive Boards, the project coordinator and an external consultant, with experience of

coordinating KA1 in a consortium. It was also considered the information resulting from a recent survey of teachers, students and guardians and was also taken into account, on time, the consultation of strategic documents of schools, namely (i) School Educational Project; (ii) business plan; (iii) Rules of Procedure; (iv) Institutional evaluation. The fact that schools have a common organisational context facilitated the whole needs mapping process and thus the following needs of this Consortium could be identified as part of the European Development Plan, highlighted below:

- innovate pedagogical practices;
- reduce the failure and drop-out rate;
- foster inter-institutional communication and the culture of teamwork and network up to an international level;
- promoting the European dimension and the internationalisation of organisations.

According to the needs survey explained in the European Development Plan, Edu4Col@b aimed to contribute on the one hand to the strengthening of equity and inclusion in education, through the implementation of an education that promotes respect for diversity, freedom, responsibility and valorisation of the work of each and every one. On the other hand, it will contribute to the modernisation and innovation of pedagogical practices and tools, with the aim of using active learning methodologies; implement pedagogical differentiation and innovative learning environments; operationalise collaborative and integrated learning of knowledge, that is, a meaningful learning in which understanding, knowledge, creativity and critical sense allow to respond to the needs of an ever-changing society. Edu4Col@b has also promoted the internationalisation of organisations in order to generate new European partnerships, increase foreign language skills, develop the European dimension in education and, by enabling, through mobility, the understanding of the contexts in which best practices occur, strengthen leadership and facilitate the construction of an identity matrix of each school that provides effective educational options by providing the most appropriate educational opportunities for its students. Integrating this project was in itself an opportunity and a way for these schools and their leaders to benefit from unique conditions for the modernisation and innovation of personal, professional, institutional and interinstitutional practices, from a collaborative network powered by Edu4Col@b.

Key Areas and Priorities

The fact that this Consortium is based in an outermost region, with a number of specific constraints (geographical remoteness, insularity, small size, topography, among others), makes it even more relevant to participate in projects with activities such as those of this Erasmus+ project, with a context reinforced by the political-administrative autonomy of the Autonomous Region of Madeira, in the area of education and which underpins the project Edu4Col@b, from its planning to its implementation. We also understand that the recent publication of important guiding and normative documents of national scope, namely the Profile of Students to Exit Obligatory Schools, the Inclusive School and the Autonomy and Curriculum Flexibility, internationally recognised and combined with regional policies, can represent a unique opportunity for the modernisation and innovation of practices, professionals, institutional and interinstitutional. However, the regulations alone do not guarantee effective change. Thus, Collaborative Work between institutions, between policy and decision makers, between top and middle management in schools, between teachers and between students, both horizontally and vertically, is essential for what is now called Education 4.0. Therefore, the implementation of Collaborative Work (Col@b) is considered a key cross-cutting area, along with training for leadership, contemplated the three Key Areas

of the: AK1- Strengthening Equity and Inclusion; AK2 – Modernisation/Innovation of Pedagogical Practices and Instruments and AK3 – Internationalisation of Organisations.

To achieve its objectives and add quality to the profile of leaders and actors in the education system, this project used mobilities in a perspective of international benchmarking, seeking and studying best practices in comparison to what is best done in the organisation itself and evaluating in its context what best applies, against the objectives defined in the framework of the European Development Plan. The structured courses, training events and job shadowing carried out thus allowed to identify good practices and the theoretical foundations that support them, especially in countries that already have a long experience in these areas.

Reflecting the intentions set out in the European Development Plan, the following priorities were defined in the construction, development and operationalisation of the project Edu4Col@b, namely (i) improving the levels of motivation, involvement and satisfaction of the educational community by providing quality training in a European context; (ii) contact and know experiences of inclusive and equitable school management at the different levels of intervention; (iii) to share knowledge and experience of policies and practices of inclusion and equanimity in education, whether in the regional, local, organisational and people's dimension, including in their individual and leadership action, in their relationship with the self and with others; (iv) know innovative foundations and practices at international level; (v) reflect, discuss, decide and act in the different fields of action, in relation to the foundations and innovative practices that aim for the success of all in the face of the uncertainties and rapid changes of our time; (vi) to enhance collaborative and networking work in the adoption and dissemination of new practices flexible and proven effective pedagogical and curricular management, building bridges, motivating and involving people at all possible levels of intervention; (vii) create, leverage, develop networks of contacts and communication channels of European scope, developing a spirit of European citizenship and identity, establishing partnership agreements between international institutions within the Consortium organisations.

In addition to the knowledge of the contexts underlying the various entities, the objectives set out in the European Development Plan and the definition of priorities for the action, it has become essential to reflect on the operationalisation of Edu4Col@b and on the activities that gave it both form, consistency and coherence, being elected those that are now: (i) strengthening equity and inclusion in education, through the implementation of an education promoting respect for diversity, freedom, responsibility, valorisation of the work of all and of each; (ii) modernisation and innovation of pedagogical practices and tools, through active learning methodologies, pedagogical differentiation and innovative learning environments, meaningful and agency-integrating collaborative and knowledge learning, where understanding, knowledge, creativity and critical sense can respond to the needs of an ever-changing society; (iii) internationalisation of organisations to develop the European dimension in education and generate new European partnerships.

The mobilities implemented were thus in line with these aims, thus forming part of a broader ideal that, over the lifetime of the project, has the strategic vision of fostering a Community of Practice among the Consortium entities and in which internationalisation, inclusion, collaborative work and renewal of pedagogical practices were an effective reality and an example to be disseminated. Placing these schools as a reference on the map of the schools of the Autonomous Region of Madeira and understanding, at the level of their processes (internal and external), how to extend this Community of Practice, is also one of the visions

of the European Development Plan in the implementation of this project, which finally has the students. The relevance of these mobilities has enshrined them as one of the critical factors in achieving the objectives of the project and this highlighted the need and usefulness of drawing the profile of the participants in this KA1, around pedagogical leaderships distributed by 4 typologies, two for decision-makers (one in the definition of educational policies and the other at the level of defining the identity profile of the school) and two for the field (one at the level of the operationalisation of policies, with the pedagogical teams of the Regional Directorate of Education and with teachers, in particular in the exercise of intermediate management), namely:

- Typology I (TpI) – Regional Secretary for Education, Science and Technology and Leaders of the Regional Directorate of Education (Regional Director, Service Directors, Heads of Division);
- Typology II (TpII) – Elements of the Regional Directorate of Education Teams (Trainers, Teachers with Technical-pedagogical Functions, Technical Assistants);
- Typology III (TpIII) – Top School Leaders (Chairman of the Executive Board and other members of the Executive Board, Chairman of the Pedagogical Council, Chairman of the Educational Community Council);
- Typology IV (TpIV) – Teachers with a teaching component and middle management positions in schools (settled on the Pedagogical Council and/or the Council of the Educational Community, Directors of Class, Coordinators/Project Managers).

The key areas and objectives of the project also guided the choices made regarding the type and number of activities selected, seeking a balanced distribution within the Consortium, between public administration participants and participants from the schools involved, also considering the typologies of the applicants and without neglecting the desired impact on training. Finally, different types of learning mobility were included in the modalities of Job Shadowing, Structured Courses and Training Events.

Activities

With regard to the three-day Job Shadowing (JS) activities, the recipients of which were Regional Directorate of Education Leaders, members of the Regional Directorate of Education Teams, senior school leaders and teachers with intermediate management positions in schools that are part of the Consortium, with a total of 21 people, it was possible to observe practices in partner organisations, in the context of the definition, communication and operationalisation of educational policies (TpI); observe, at the organizational level, focusing on the three key areas of the project, space and time management in the school, transition management, project implementation, scheduling of students in the curriculum appropriation (TpII); visit schools with an agenda for observing innovative and quality practices in the three key areas of Edu4Col@b, with particular focus, in addition to the areas mentioned for the pedagogical dimension of typology II, on collaborative and cooperative work, communication and shared leadership (Typologies III and IV). In this regard, Job Shadowing activities were held in the UK, under the theme Collaborative Learning supported by video; in Branston, with a visit to the Branston Junior Academy; to Finland, more precisely to the city of Ylitornio – Ylitornio school yhteiskoulun Lukio and, finally, to the Sant Josep School in Barcelona.

Regarding Structured Courses, they had an average duration of five days and were intended for members of the Regional Directorate of Education Teams and teachers with intermediate management positions in the schools that are part of the Consortium. The courses carried out

were part of the key areas of the European Development Plan in the following themes: Principles and practices of equity and inclusion, access to learning and curriculum, responding to each student; Active methodologies and innovative pedagogical evaluation practices; Intercultural competences, from a citizenship perspective and a European and international dimension; Foreign language skills; Educational technologies; computer science/robotics; Literacy; Critical thinking and creativity; Inquiry/Problem/Project Based Learning (IBL/PBL/PjBL), STEAM methodology; Student agency in the curriculum ownership; Interpersonal relationship; cooperative work, emotional intelligence, leadership.

The following are the structured courses held by about 60 participants: The Child First: Montessori, Reggio Emilia System and Contemporary Approches to Pre-School – Florence; Learning Through Collaboration and Cooperation – Verona; ICT Tools for a Creative and Collaborative Classroom – Ghent Interactive Technologies for the Future Classroom – Brussels; Brain-Based Learning: Understand How Students Really Learn – Amsterdam We Are All Special: Inclusion and Support for Students With Special Needs In and Out of the Classroom – Barcelona Project-Based Learning (PBL): Make Student’s Learning Real and Effective! — Madrid; Designing Inclusive Learning Environments (IEL) to Support all Students – Florence.

Finally, the Training Events, with an average duration of three days, were members of the Regional Directorate of Education Teams and teachers with a teaching component and middle management positions in the schools that are part of the Consortium. These mobilities aimed to participate in international training events, in the area of educational innovation or the internationalization of education. In one of the events, the participant made a communication, with the aim of sharing some of the innovative practices within the project Edu4Col@b, thus contributing to make the project known in an international dimension. The presence of 14 participants in Cologne at the Towards High Quality in KA1 event should therefore be highlighted; in Barcelona, at the Connect International Conference on Open Schooling and The 4th Barcelona Conference on Education and in Glasgow at the European Educational Research Conference (ECER).

After the realization of the mobilities, and in order to contribute to the transformative role of the teacher, the participants were invited to share and disseminate the learnings, previously agreed through the Plan for Dissemination of Learning. This document includes, in a general way, the objectives of the Dissemination Plan, which meet the objectives of the project Edu4Col@b. The objectives, to be selected by the participants, aim, for example, to implement measures of organizational and pedagogical scope: space and time management in school, transition management, project implementation, collaboration and student agency in the curriculum ownership; strengthen equity and inclusion in education through the implementation of an education that promotes respect for diversity, freedom, responsibility and valorisation of the work of each and every one; contribute to the modernisation and innovation of pedagogical practices and tools, using active learning methodologies; implement pedagogical differentiation; disseminate and promote innovative learning environments; operationalise collaborative and integrated learning of knowledge, i.e. meaningful learning in which understanding, knowledge, creativity and critical sense can respond to the needs of an ever-changing society; to promote the internationalisation of organisations to generate new European partnerships, to increase active learning approaches; deepen work in learning communities or collaborative practices that help develop research, systematisation and communication skills, encouraging teacher self-training as a response to priorities or intervention needs. It is also foreseen to elect the target audience, to whom the

initiatives are addressed, as well as the methods of dissemination, focusing on creativity and the diversity of methods for disseminating mobility activities as a factor of differentiation when applying for mobility.

We highlight, therefore, as the main methods of dissemination of learning implemented the following:

- Short-term training/workshop;
- Training with validation for career development;
- Multiplier event at school;
- Multiplier event in the Consortium’s school or network of schools, or open to others Entities;
- Presentation of Communication in training activities or events organised by entities of the Consortium or others;
- Presentation of Communication at events external to the Project or Consortium;
- Mass dissemination, e.g. in the media (Press/Radio/TV);
- Publication of a journal article in the field of education;
- Workshop.

In this context, workshops, training events and validated training actions were held, whose main objective was to make known the project itself as well as the themes worked in the framework of the structured courses attended. The following picture illustrates some of these initiatives.



Figure 1: Examples of dissemination of learning

Conclusion

The Regional Directorate for Education, through the Continuous Training Division, in conjunction with the Support and Monitoring Team (Team formed in the Continuous Training Division, with the responsibility of monitoring the European Development Plan), has the responsibility to proceed with the direct validation of training activities carried out abroad, within the scope of Edu4Col@b mobilities, waiving the formality of the individual application of the interested party. Also in this context, and given the possibility of full certification/validation of participation in the project, as hours of continuous training for the purpose of teaching career development, it was previously suggested that participants

describe their path at Edu4Col@b, (Learning Diary), in digital or other support, in order to facilitate the monitoring and registration of their learning process, to act as a tool for reflection and meta-learning, to reveal the progress made and the results achieved.

It was also considered desirable that each participant in the project Edu4Col@b should take an attitude of creativity and critical thinking in the way he observed, collected his data and made his records, his reflections, the transfer, ultimately, to his/her work contexts. From their personal reflection and with the awareness of their transformative role, each participant in Edu4Col@b thus had the opportunity to (re)build their own narrative and have their story to tell.

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