PEERMENTORING IN EDUCATION FOR SUSTAINABLE DEVELOPMENT: RECOGNITION AND VALIDATION OF A NEW COMPETENCE

Contents

The project partners are:

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2. **Solski Center Nova Gorica (Slovenia)**

3. **Comité National de Solidarité Laïque (France)**

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Foreword

The 2030 Agenda for Sustainable Development was adopted by the United Nations in 2015. This means that only one decade is left to completely achieve the 17 Goals for Sustainable Development to take action and fight against global problems, such as poverty, hunger, gender inequality and climate change. However, in order to internationally achieve those goals, granting quality education has to be set at the core of the entire process. Part of quality education is learning about ESD, which helps us understand the interconnected and globalized world we are living in. In order to develop abilities in the field of a research of information and in order to issue accessible cross-sectoral solutions, a multidisciplinary approach is required. Therefore, it is important to provide teachers with innovative methodologies to support them in passing on to their students a way of thinking fit to answer the glocal challenges they will meet.

Teachers can easily feel under pressure when confronted with their duty to transmit to young people the necessary competencies to face the challenges of this complex and globalized world. This feeling of loneliness facing such a huge responsibility can sometimes feel overwhelming. A single teacher, left alone with the challenge, can often be tempted by the idea of surrendering. PEERMENT's goal is to avoid this surrender by developing and supporting teachers' need to integrate in their curriculum the necessary knowledge about ESD, with an approach that fosters collaboration and sharing with other colleagues. it proposes to achieve those competencies through the participation in *Local Teacher's PEERMENT Groups*. Working in small groups gives the teachers the possibility to create trustable relationships with their peers and to find a support group, where competences and burdens can be shared and lightened. PEERMENT's support structure allows teachers to be more confident and effective in the communication of a sustainable way of thinking to their students. *Local Teacher's PEERMENT Groups* join resources and knowledge to produce WebQuests, which are considered to be a very reliable tool in ESD due to their interdisciplinarity and to the active role that the students, guided by the teachers, play in gaining new knowledge.

It must also be reminded that we expect 1.9 billion of young people turning 15 years old between 2015 and 2030: the largest generation of youth in history. 90% of these young people will live in developing countries, where the issues of the 17 Goals are the most felt. The generation of the future do not deserve to grow up in a world that is constantly widening its inequalities. To avoid this possibility, young people need to receive a critical thinking and solution-oriented training that only quality education can provide. PEERMENT's methodology perfectly fits this idea. Teachers, who created WebQuest in the *Local Teacher's PEERMENT Group*, challenge their students to develop these competences through this solution-oriented inquiry methodology. This new *forma mentis* will

help them in the comprehension of the challenges of the interconnected word of today and will give them the basic tool to be able to contribute to a future of equal, inclusive and sustainable societies. The PEERMENT approach together with the WebQuest tool, correctly used inside the school context, could become an efficient methodology able to help the next generation in accomplishing the difficult challenges they will face.

The PEERMENT Scientific Committee during one of their meetings

Part 1: Introduction and Framework of the PEERMENT model

Mentoring and Peer Mentoring

Mentoring and Peer Mentoring are increasingly being acknowledged as crucial tools for teachers and school leaders.

PEERMENT is aimed at the development of the Mentoring and Peer Mentoring approach for teachers' training and aims to strengthen the profile of the teaching profession within the remit of Education for Sustainable Development (ESD).

As a matter of fact, "Mentoring is a form of long term tailored development, with a primary focus on developing capability and potential, which brings benefits both to the individual and to the organization" (University of Sheffield, 2009).

> "Mentoring is just-in-time help, insight into issues, and the sharing of expertise, values, skills, and perspectives. Mentors function as a catalyst—an agent that provokes a reaction that might not otherwise have taken place or speeds up a reaction that might have taken place in the future (Educause, n.d.)."

The Agenda is usually set by the mentored person, with the mentor providing support and guidance to help develop the mentee professionally (University of Sheffield, 2009).

This project proposal privileged a Peer Mentoring Approach, which essentially combined a group style in which the expert(s) passed on knowledge to a group where necessary, with the Circle style, in which co-learners shared knowledge. This combined the best of a top-down and bottom-up approaches, which tallied with the requirements of an Education for Sustainable Development approach.

One European model of interest is based on a constructivist view of learning, the idea of shared expertise and the model of integrative pedagogy, where teachers are trusted, and their professional autonomy respected (Kirsi, T., 2014).

In fact: "Peer Mentoring aims to enhance supportive relationships between two people, sharing knowledge and experience and providing an opportunity to learn from different perspectives".

The PEERMENT educational model is inspired by the **Communities of Practice Theory** by Etienne Wenger.

In order to allow the Communities of Practice to promote innovation within ESD, develop social competences, train newcomers, facilitate and spread knowledge within a group, the innovative element of PEERMENT was introduced. In this way, PEERMENT piloted Communities of Practice among teachers working on ESD, while catalysing the formation of such a practice on a more long-term basis.

Communities of Practice create a space to for two or more people to learn from their interaction. By gathering people connected by common interest in a field, a passion or an issue, they embed social learning processes activated through the collaboration over a relevant period of time. Participation and learning are based on the availability, intentional or not, to share ideas, dilemmas and strategies, with the aim to explore innovative actions or solutions (Lave, J, 1991; Lave, J. & Wenger, E, 1998).

Inspired by Wenger's definition stating that "Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly", PEERMENT Project's partners decided to pilot a new model for Peer Mentoring on ESD.

ESD was the "shared concern and passion" over which Peer Mentoring communities were created.

Communities of Practice have **three main features** to be considered as such: a domain, a community and a practice. As far as the Peer Mentoring groups of PEERMENT Model was concerned, these features were:
1. **'ESD', <u>Education for Sustainable Development</u>** was our domain, our **shared area of interest**, which means that the local Peer Mentoring groups did not simply meet from time to time, but that the membership to the group implied a commitment to the domain of ESD.
2. **Local Teachers' PEERMENT Groups** were our **Communities of Practice**, which met in order to support each in the spread of **Sustainable Development** and worked in order to create the **WebQuests**[1] and enhance their lesson plans. Being teachers and merely sharing the same job does

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[1] WebQuest is a didactic strategy formalized in the United States by Bernie Dodge and Tom March in 1995. This methodology had a large spread around the world. When the teacher identifies a deficientcy in the textobbok, he/she can dea with that topic using different sources that could be found in the Web (for this reason it is called WebQuest). Practically, WebQuest creates a structure (indicating sources, referencese, task, procedures, and specifies of the final product) between the student and the teacher, "to offer a layer of structure between the child and the Internet (…). This

not make a group of teachers a community, but rather in pursuing their shared interest for ESD, members engaged in joint trainings, activities and discussion. They shared their knowledge and information, supported each other in their personal and social development, as well as engaged in working together on the design of the WebQuest and discussing their results. Thanks to the use of the **Peer Mentoring methodology** they built relationships that made it possible for them to teach and learn from each other, enabling a personal, professional and group development. Interacting and learning together on ESD as Peer Mentors made Communities out of the local Peer Mentoring groups. Of course, as in Wenger's theory, members do not need to work together daily, but repeated and engaged interactions are crucial to their learning as part of a Community of practice.

3. The **development of the competences** needed to create and use the **WebQuest** tool and the design and testing of new WebQuest was a main "**practice**". As in Wenger's theory, a Community of Practice needs to be participated by practitioners. It is not enough for them to have a shared interest. Our model on Peer Mentoring for ESD saw the elaboration of a shared repertoire of didactic and educational tools called WebQuests. Other envisaged competencies are linked to delivering ESD as a transversal topic and the role of the teacher in transformative education. Context is key throughout, and the Peer Mentoring spaces provided were also designed to strengthen competencies as linked to personal and social development and dealing with difficulties arising from implementing ESD, which often carries a low status in schools and is not always supported by the heads of school.

The preliminary need analysis performed before the start of the project was further reinforced during the project in that feedback received from teachers confirmed that they often felt poorly equipped in identifying and using tools for teaching ESD. The **development of the competences** included both the capacity of identifying reliable websites and the ability in the use the **WebQuest** as a tool, which is mainly the "**practice**" expression of the first competence. Nowadays, identifying so-called reliable websites has become for teachers one of the most important part of their job. They really need to learn practical skills in how to filter the myriad of information among a lot of fake or unreliable news. Identifying such websites is also time consuming and thus relying on the expertise of partners such as NGOs, and sharing the time to consult and review promising websites, is a task that can be undertaken by communities of practice committed to ESD. With this focus on mind, the model on Peer Mentoring for ESD foresaw the elaboration of a shared repertoire of didactic and educational tools called WebQuests. Other envisaged competencies were linked to delivering ESD as a transversal topic and the role of the teacher in transformative education. Context was key throughout, and the

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allows the children to focus on the learning task and less on the searching task." - http://www.teachit.so/index_htm_files/WebQuest_Segers_et_al_2010.pdf

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Key roles

Communities develop their practice in different ways and using different methods: the PEERMENT model was based on the support of an Education Specialist who was trained in facilitating the interaction within the group using a Peer Mentoring methodology and on promoting the engagement of teachers sharing a personal commitment to ESD and an availability to engage.

Education Specialists

The Education Specialist was the teachers' reference for the necessary support in infusing ESD across the curriculum, in identifying reliable websites and information, and for the use and development of WebQuests. In this respect, it became important to accurately consider the Italian example. Italy was the only country of the project which had two partners, one of which was a Non-Governmental Organisation, which through its expertise, was specifically tasked to show the teachers' Community of Practice how reliable information can be transferred from the work and reality of the NGO working on the ground to teachers.[2] This set up was further complemented with other expert contributions from the other partners, some of which are also NGOs or had personnel with previous experiences in NGOs.

Education Specialists were a core part of the PEERMENT project. The methodology of the whole project was planned on the premise of the active involvement of the actors of the Mentoring processes, i.e. Educational Specialists and Teachers. The role of the Education Specialists included:

1. Support to the **Local Teachers' PEERMENT Groups** members during their Training Paths, including projection, planning and implementation, as well as how to deal with any conflicts that might arise in the group of teachers.

2. Educational Specialist were involved in the process of testing how effective the **Guidelines**[3] **that have been elaborated for Teachers** involved in the Peer-Mentoring were. Furthermore, the Scientific Committee of the project, integrated with one Education Specialist for each country, elaborated the first draft of the Guidelines; the Local Teacher's PEERMENT Groups started their training, initially supported by the

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[2] You can find the detailed Italian experience in the section "Lessons Learnt".

[3] The Guidelines for Teachers, which were elaborated as an Intellectual Output of the PEERMENT project, are "*a complete and user-friendly tool for teachers, on order to lead them to project, plan, implement, and evaluate Peer – Mentoring systems for their own professional development.*" – Reference in the Project.

Education Specialists; and both the meetings and the on-line training were supported by the Education Specialists where necessary.

3. Involvement in the seminars that created the **Guidelines for Education Specialist**[4] on how to lead and support the **Local Teachers' PEERMENT Groups** which were involved in Mentoring and Peer – Mentoring training paths.

Teachers participating in the Local Training Groups of Peer Mentors

Participation in the piloting activities of the model was an opportunity for teachers to learn through social participation and to develop their identity as part of the **PEERMENT Group of Teachers.** Social participation and self-development became part of the motivation push and pull incentives for learning.

Moreover, members were keener to learn from each other, if they would identify with the community and would value the skills and knowledge of their peers relevant to their own way of teaching ESD. The role of such teachers was defined as follows:

• They are responsible for (co)-developing the didactic activities

• They are responsible for (re-)launching the didactic activities on ESD with their pupils, and give the required feedback (and keeping the school principal and colleagues updated about the project)

• **Local Teachers' PEERMENT Group** worked closely with their mentors, a process that fed into this definitive version of the European Model of recognition and validation of a new competence[5]. Here they were expected to improve their competences for ESD; they learnt how to manage paths and experiences of Peer - Mentoring and how to create new systems of Peer Mentoring, also for other subjects.

• They also provided feedback for the **Guidelines for Teachers**.

• They also were available to tell their experiences during the multiplier events.

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[4] These Guidelines include a "*Table of contents*" that gives the Education Specialist on the one side, a theoretical knowledge and on the other side, a more practical use of the theory. In the first place, it explains what is Mentoring and Peer-Mentoring are and how to apply it in the teachers' training, and in the second place, it clarifies how to manage conflicts, how to support teachers (also online) and how to monitor the trainings.

[5] The mentor should be compatible to some specific characteristic that are recollected in the European Qualification Framework. This definitive version of the European Model is even more specific because it is focused quite exclusively on Sustainable Development. It enucleate knowledge, skills and attitudes referred to contents, methodological approach and techniques. This approach enables the ES in having a better approach with teachers' groups.

Process

The Peer Mentoring in ESD model followed three phases:

Phase 1

The Education Specialist received a training on the guidelines provided, during which he/she learnt:

- how to gather and facilitate a Peer Mentoring group for ESD
- how to master the use of reliable websites and WebQuest as tools to work on ESD.

Phase 2

The Education Specialist organized and facilitated the meetings of the **Local Teachers' PEERMENT Group** (on the basis of the **Guidelines** provided), during which he/she created a Peer Mentoring environment and trained the participants on:

- Infusing ESD across the curriculum
- The Peer Mentoring for ESD methodology;
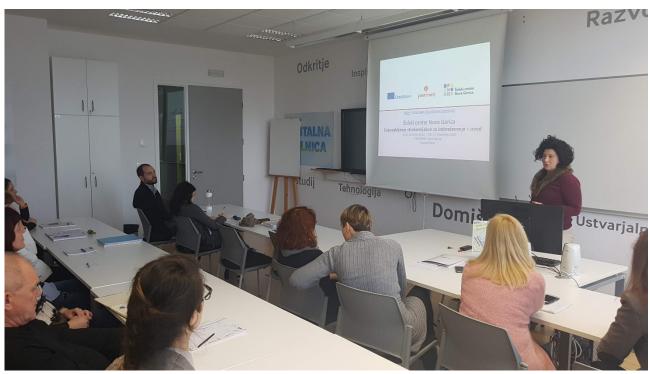- Use and development of reliable websites and WebQuest.

Teachers freely decided whether they wanted to participate in the **Local Teachers' PEERMENT Group**, but those who did were requested to use what they learnt infusing ED across the curriculum and to design their own WebQuest.

Phase 3

Teachers tested the elaborated their new lesson plans and WebQuests with their students.

PEERMENT Training session in Croatia

PEERMENT Training session in Slovenia

Part 2: The "PEERMENT for ESD" educational model

The PEERMENT pilot process was based on peer-to-peer, activating, small-group learning experiences along with the facilitation conducted by educational experts. Ongoing evaluations were an integral part of the process, with feedback being gathered directly from the scientific committee that oversaw the project, the educations specialists that participated, as well as through the teachers that participating in the Local Training Groups.

All training activities were embedded in a vision based on stimulating a Peer Mentoring for ESD environment and facilitation aimed at valuing the various ambitions, talents, knowledge and sensitivities of the teachers participating in a community of practice. In this vision lies the common basis for the way in which trainings for Peer Mentoring in ESD were differently organized in the 5 countries involved in the piloting (Malta, Croatia, France, Italy and Slovenia). The four main features of the Peer Mentoring for ESD Model were the following:

1. **A shared definition and commitment for ESD**

ESD is the shared challenge which glues participants and motivates their engagement in the local training groups of Peer Mentors. The working definitions of ESD and related transformative educations have been outlined in the document "Good Practices in the EU"[6]. In particular, the working definition of ESD adopted during the decade was that of education that "empowers people to change the way they think and work towards a sustainable future (UNESCO, n.d.a)", specifically:

> "ESD empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while respecting cultural diversity. It is about lifelong learning and is an integral part of quality education. ESD is holistic and transformational education which addresses learning content and outcomes, pedagogy and the learning environment. It achieves its purpose by transforming society (UNESCO, n.d.b)."

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[6] This essay describes the at least ten good practices ok Mentoring and Peer-Mentoring existing in Europe for initial and in-service teacher's training.

2. The Peer Mentoring for ESD methodology

As identified in the "Good Practices in the EU" document, a cursory look at the definitions of the various transformative educations indicates one common trend – the need to move from knowledge and awareness towards personal involvement (hence values) and informed actions (hence skills). This provides guidelines to what the specificities of peer-mentoring for ESD can look like, namely a reciprocal holistic process of teachers supporting each other in a trusting environment, in which one shares knowledge and skills that contribute not only to the teacher's personal and professional growth, but to the process of effectively becoming active visionaries and agents of a sustainable future. PEERMENT is convinced that Mentoring is one of the more effective methodologies for teacher in training, and Peer-Mentoring is a way to use all the potential existing inside the schools to guarantee the continuous professional improvement of the teaching staff. In other terms, Peer Mentoring is an excellent way to turn schools in "learning communities".

3. The use of reliable websites and WebQuest as tools to design educational experiences and to grow into a community of practice

Bernie Dodge, the originator of the WebQuest concept, defines a WebQuest as:

> "an inquiry-oriented activity in which most or all of the information used by learners is drawn from the Web. WebQuests are designed to use learners' time well, to focus on using information rather than on looking for it, and to support learners' thinking at the levels of analysis, synthesis, and evaluation." Starr, L. (2000).

WebQuests adopt the constructivist approach to learning and are considered to be a super learning tool, where according to Kenton Letkeman:

> "With many research projects students feel that they are sucking up information and regurgitating it onto paper for no other reason than to get a good grade. WebQuests give students a task that allows them to use their imagination and problem-solving skills. The answers are not predefined and therefore must be discovered or created. Students must use their own creative-thinking and problem-solving skills to find solutions to problems." Starr, L. (2000).

4. Flexibility and freedom of choice according to context

In order to do justice to our teachers' wide variety of academic backgrounds and talents and to adapt to local context and school systems' peculiarities, the local training groups are planned to build a space whose contents will be organized demand driven: alongside a uniform compulsory core training

sessions (on ESD, on the Peer Mentoring methodology and on the design and use of WebQuest), teachers are free to put together their own focus of work within the boundaries laid down by the facilitator meant to safeguard the level and cohesion of the different piloting experiences throughout Europe. This principle also allows PEERMENT Project to offer some tutoring for teachers who are seeking an additional support and accept the challenge to test their own WebQuest with their students. Such a set-up respects the principles of the educational and pedagogical freedom of teachers, creating a win-win situation, in that the personal motivation and passion of the teacher is ultimately transmitted to the students. It is interesting to note that while teachers are often under huge pressures, some did express the need to approach ESD themes also for pleasure, and to promote "education for wonder", that incidentally is a strong theme in environmental education, which is often closely associated with ESD. The freedom and flexibility of choice according to context adopted by PEERMENT allows for inclusion of such an approach, although teachers did deplore that sometimes they lack the means to act on such aspects.

Peer Mentoring for ESD and expected learning outcomes

The PEERMENT project aspired for Educational experts and teachers involved in the groups to get the most out of themselves during their time in the project. The model core strength point was the wide range of opportunities for peer interaction and small-groups that Peer Mentoring for ESD offered. The model expected to see participants reinforce their engagement and commitment to the teaching of ESD and their self-consciousness in their potential as ESD educators.

One clearly favourable characteristic of the PEERMENT model is its replicability beyond the participating countries and the life cycle of the project, with due attention that needs to be given to context. Feedback was collected throughout the whole process, through the scientific community, working hand-in-hand with the educational specialists, and through the direct feedback from the teachers. What follows is a collation of some of the lessons learnt. There can act both as pointers for the continuous improvement of the model as well as guidelines that will held in disseminating the model beyond the initial group that piloted it, and ensure the replicability of the model and its adaptations to different contexts.

Lessons Learnt

Assessment of goals and objectives

The PEERMENT project aspired for Educational experts and Peer Mentoring teachers involved in the groups to get the most out of themselves during their time in the project. The model core strength point was the wide range of opportunities for peer interaction and small-groups of Peer Mentoring offered. The model expected to see participants reinforce their engagement and commitment to the teaching of ESD and their self-consciousness in their potential as ESD trainers.
Fostering the knowledge of WebQuest as tools for ESD teaching, personal engagement, activation and professional development of Peer Mentors was also an objective of this project.

One clearly favourable characteristic of the PEERMENT model was meant to be its replicability beyond both the participating countries and the life cycle of the project, of course with due attention to context. This was particularly necessary since there is a wide variety of views on SD, on the concept of ESD, and on to what extent schools provide opportunities to open up to the outside world and the contamination of different teaching methods.

> *"It was interesting for us teachers to open up to the outside world: to decentralize, to be confronted with other teaching methods...* (Teacher, France)*"*.

Good teaching is provided by excellent educators who are enabled to improve their teaching and to innovate through the participation in a Peer Mentoring community of teachers. Peer-mentoring can be seen as a lever for improving the quality of education, thus contributing to SDG 4 (on education) and, by placing itself at the service of ESD, citizenship, intercultural exchange and educational content, it also contributes to SDG 4.7.

Evaluation: Did we reach our goals?

Peer mentoring as an approach to increase teachers' engagement to ESD, wellbeing and self-consciousness.

As far as the effects of the use of the Peer mentoring approach is concerned, our partners reported the experience to be largely positive.

Recurrent theme that emanated through feedback was that peer mentoring for ESD offered:

- a space to discuss points, pool experience, see the world form the eyes of another & collaborate
- a space to share difficulties, resources, content and new pedagogies
- an opportunity to build on each other's strengths and to share good practice
- a space through which new ideas are created
- a confirmation that one is on the right track
- much needed mutually beneficial support and the creation of new bonds
- an opportunity to work with highly motivated colleagues across different subjects and different schools (where applicable)

Teachers in general were successful in integrating SD across their teaching. Topics varied from "soft" issues such as recycling, to equality issues such as gaps in wage differentials and gender equality, to issues linked to health, inter-culture, well-being, and healthy lifestyles. The subject taught was often a determining factor, since different subjects offer different entry points and/or different emphases. Furthermore, in the case of primary schools, where teachers tend to teach an array of subjects, the focus of across which topics to infuse ESD, was determined by the teachers themselves, the school leadership, as well as the strengths of the Education Specialists. Surprisingly though we are already one third towards Agenda 2030 and the SDGs, some students are still not aware of such global targets, and PEERMENT, through its WebQuests and its trainings sessions, served as an entry point, for students to explore these global and national targets"

> *"I have guided the students through a WebQuest task concerning the Agenda 2030. Topic which was, surprisingly, totally unknown to my students (Teacher, Italy)."*

Stating that teachers were in general successful in integrating SD across their teaching does not imply that this was a smooth path without obstacles. Beyond the usual time pressures faced by educators,

and the need to further their capacity as part of their continuous professional development, some teachers reported resistance from parents, the curriculum itself which is built on a more dominant paradigm, issues with politics, issues of coherence between the discourses and actions of the school, issues linked to motivating students, and a school culture that sometimes does not encourage independent learning.

There are some key elements that are commonly shared by every member, but also some minor critical points that still could find areas of improvement. The most recurrent evaluation made by all partners is that the working environment proved to be essential in the creation of a peer to peer relationship. There were some differences in the experiences of partners to what extent could be done through technology, with some reporting to work and create such a setting at a distance.

The exchange of ideas, knowledge and educational methods among teachers was favoured when they could meet in a neutral space where cooperation, trust and confidence were made easier and respect and mutual understanding could be rapidly built by participants and guaranteed by the Education Specialist. The role of the Education Specialist should not be underestimated: he/she has to be deeply prepared with tailor made trainings that are specific to the trainee group. Some examples could be: familiarisation with the syllabi and learning outcome frameworks, which are parts of the so-called vertical part of the training. In fact, where this condition was accomplished, the relationship between Education Specialist and Local Training Groups grew meeting after meeting and finally, it ended up to be authentic, intimate and enriching for both parts.

Working in small groups of peers has also proved to be a valid method for teachers to engage better and get to know each other's strengths and skills, which has later allowed them to involve each other to complement some lacks of knowledge they may have. This proved to be extremely beneficial for their students.

Therefore, not only it can be stated that teachers' awareness, confidence and capacity of creating tools to explain Sustainable Development topics has increased thanks to the peer-mentoring, but also that, as a consequence, students' curiosity and consciousness toward this fields had greater chances to be stimulated by these synergies. For example, some Maltese teachers at the beginning were more inclined to consider the soft green aspects of the Sustainable Development. However, through the peer mentoring process, they discovered to be more open to other aspects, such as pertaining to social justice or equity. In fact, when later they realised that the examples of the mathematics text book being used in class created a limitation to the infusion of ESD across the curriculum they - through their skills and passion – they reversed the situation by adding new examples that linked better to social justice challenges. This shows how important the role of the expert is, in order to probe, so as to give direction, to the process in accordance with the four pillars of Sustainable Development,

namely the economic, social, environmental and cultural. In this respect, we could say that ESD field has been valorised by the Peer mentoring method. Furthermore, for other teachers in Malta, in particular those teaching Economics and Business studies, an explicit reference to the SDGs was found helpful in infusing sustainable development principles across the curriculum. This also helped make learning more relevant, in that through an explicit link with the SDGs, it was possible to see how the peer mentoring process for ESD fits into a bigger perspective of wider national and global targets.

As reported by all partners, work satisfaction of teachers augmented and collaborative relationships were created for the future, even between older and younger teachers or among those with very diverse backgrounds. In fact, the inter-generation gap has been everywhere overcome and it has become an enriching element for the Peer mentoring groups. These points were said to be not only the positive effects of the projects, but also the most interesting aspects of trainings.

WebQuests.

A major tool used to support the model was the WebQuest. On the one hand, we could report some extremely positive experiences, whereas, on the other, some ameliorations need to be done in order to improve even more the utility of this tool.

WebQuest was considered to be a more exploratory and collaborative instruments and it was also appreciated because it was able to supports collaboration between participants at a very practical level.

However, some partners found this tool to be not very useful per se. In fact, as partners reported, they would have preferred the WebQuest to be an instrument used in the teachers' training process. According to them, WebQuest could be more useful in identifying adequate websites and filtering fake news. In addition, WebQuest could be only useful when there is already a commitment and practice of integrating ESD across the curriculum and then within such practice it can be seen as an added tool. If there is no interest nor commitment at all, WebQuest would not start the interest for the ESD per se.

The success of the use of WebQuests is also partly dependent on finding a balance in the roles of the Education Specialists and the teachers, according to the context. While some teachers might require a lot of support in the design and use of a tool that they feel they do not know so well, for others this might be interpreted as putting them in a passive role and depriving them of the control and choice of teaching resources. For some the role of "testing a tool" further accentuates such a feeling, which is contrary to the partnership approach and the equal footing promoted by a peer-mentoring approach. Thus, the balance of the horizontality of the "circle" model of peer-mentoring with the vertical inputs

of the Education Specialists is not a constant, and needs to be adapted according to context and expectations.

Such a search for balance is also relevant in the relationship between the teachers and pupils, in particular when one notes that in spite of changes in rhetoric, teaching is still sometimes practiced in an academic and top-down way. The use of WebQuests and the infusion of ESD across the curriculum gave an opportunity for teachers to revisit such a balance and in considering SD challenges, to put at the heart of the lesson a search or "quest" for contributions and solutions by students in autonomy, with the teacher serving as a guide to research and not a transmitter of knowledge. The tool is particularly useful if it is understood in groups, and the result of a common construction between teachers and students, and a tool for the empowerment of students.

The inclusion of a training component on the following is deemed as an essential part of the model:
1. Assessing the reliability of information & identifying fake news
2. Filtering through too much and overwhelming information
3. Suitability of websites for students
4. Basic IT skills where necessary.

From an inclusion points of view, it is important not to take for granted the accessibility of computers in schools in practice, whether through lack of availability of logistical issues linked to timetabling.

The need for a catalogue of WebQuests with materials ready to use was suggested by some teachers, and this is partly addressed through the project itself, which created a first database on its website www.peerment.eu.

Replicability.

The model has large possibilities to be replicable. The Peer mentoring model will already be used next year in some schools. It has been an effective method to build didactic learning units and peer mentoring is successful for teachers to approach each other in a better way. Even if we find that the model could hardly be imposed following a top-down approach, the feeling is that teachers who have familiarized with the method will now spread their knowledge in their schools with a bottom-up approach.

The teachers associated with the PEERMENT project often mentioned time as a limiting factor in the integrations of ESD across the curriculum. This is a crucial point to take into consideration in order

to ensure the dissemination of the model and its replicability. Infusing SD across the curriculum does not necessarily entail more time, since it is often about taking a different approach, working with a different paradigm, and using more relevant examples pertaining to the sustainability challenges of the localities involved. This point needs to be emphasised in any future training associated with the PEERMENT for ESD model.

In spite of the UN decade dedicated to ESD, some teachers reported the general scarce knowledge of students on SD issues, as well as various misconceptions, as challenges they faced. From a PEERMENT model perspective however this is also a plus point in that the project served as a "correction" to such a reality. Various teachers also felt that they need to do a lot of research themselves on SD issues, and some required confidence and capacity building. To this extent some of the WebQuests created include a one pager teacher's notes, that can be useful in summarising main points for busy teachers.   Enhancing teacher knowledge on SD issues is thus a competence that needs enhancement. This can be provided through training as part of the PEERMENT for ESD model, and where applicable, a training component may include:

1. Creating partnerships with NGOs
2. Tapping into the knowledge of Education Specialists
3. How to research on SD
4. The SDGs
5. Keeping up to date with new trends and developments.

> "*You definitely need to first and foremost believe in the value of the SDGs* (Teacher, Malta)."

Identification of activities or areas needing additional effort

During the training process, partners identified some areas that need an additional effort.

As already anticipated by the PEERMENT project, based on international literature and a needs analysis on European experiences, a peer mentoring process is not without its own difficulties.

> "*Too many ideas which cannot be implemented due to the lack of time.* (Teacher, Malta)"

The model proposes the availability of Educations Specialists that can be called upon and relied upon to mediate if required. Generally, the difficulties mentioned through the feedback collected focused on two broad points:

1. Logistical, pertaining to time pressures & timetable pressures. Education Specialists are trained in offering guidance on how to infuse SD without necessarily increasing the time required for delivering the lessons. It is also worth investing in more time to get the school administrators on board, in order to reduce the negativities linked to timetabling issues.

    "It would be ideal that the school management also appreciates the benefit of peer mentoring (Teacher, Malta)."

    "Interdisciplinarity and exchanges between peers require time: time to get to know each other, time to prepare and to agree pedagogically ("to coordinate"), time for the project, time for evaluation and to take a step back from the project (Teacher, France).

2. Cultural. This is linked to the extent that teachers are willing to work in teams, their disposition to peer mentoring, being open to change, to share resources and to collaborate. Since the participation in the PEERMENT groups was in most cases on a voluntary basis this is not so much of an issue. In other cases, participation was linked to wider school policies and this can create an awareness of other issues which might require attention, such as building a culture of collaboration and supporting this with time and other resources as necessary. This can also be linked to a history of being ignored and some teachers can lack the self-confidence to take on a mentoring role. Here the role of compassion and empathy were identified as interesting points of the peer mentoring process.

    "It is a synergy making process (teacher, Malta)."
    "It also requires a good emulation between colleagues and therefore a good understanding, trust and really works on "an affinity system" (teacher, France)*"*

Confirming international literature, both the need to enhance teamwork techniques, as well as the need between mentors and mentees were highlighted by teachers.

For the Slovene partner it was difficult to 'break the ice' with the participants, but once that the process started and teachers got along with it and the situation improved. To this respect, they

underlined that the exchange experiences with teachers from Italy in Cervia was extremely helpful to build "team spirit".

For the Croatian partner the difficult part was to: 1) ensure a diversity respectful setting and an atmosphere free from prejudice; 2) find the right pace of the training, in order to avoid diluted education and loss of enthusiasm; 3) enhance the 'outside the box' process, meaning that it was difficult to deconstruct the original way of thinking of teachers because they tend to be methodical; 4) deal with large groups of participants; and 5) making constantly sure that the ES respected its role of moderator being in a peer position toward teachers, because if this peer relationship is compromised by one of the parts it is quite impossible to reconstruct it. In addition, they reported, also the fact that forced participation proved to have a negative impact, especially in the early stage of the project. This point will be analysed later.

In Italy the difficult parts were: firstly, to master the identified working tool in all its aspects, secondly, to test, improve and disseminate a new model of Mentoring and thirdly, to create didactic material on some relevant "Global Challenges", in form of WebQuest. As the Croatian partners pointed out, also in Italy there was an initial reluctance in participating, due to the fact that participation was forced. The forced participation could in fact threaten the typical enthusiasm which is necessary to fruitfully carry out the work on the WebQuests. Also the domestic work is not to be underestimated. In fact, after the beginning of the WebQuest at school, pupils are supposed to gather in the afternoon. Usually they don't know where to gather, because many families live far from school.

Finally, the Maltese partner pointed out two important challenges that need to be tackled. According to them, the main obstacles are logistics and leadership based. For what concerns the logistic aspect, they ask themselves what kind of spaces are safeguarded to ensure that teachers can engage in Peer mentoring. On the leadership base, they ask some useful questions. Who will initiate the process? What is the role do the school administrator? What is the role of the HOD or Education officer? These are questions that maybe the model should try to better respond.

Identification of effective activities or strategies

In general, it could be said that the PEERMENT approach worked. All partners were satisfied in how the method was able to create strong relationships among the participating teachers, even if it was difficult for some Education Specialists to constantly maintain the attention on the peer relation and to make sure that everyone has a chance to talk. The teachers' exchange experience in Cervia was extremely helpful in creating and reinforcing the relationship, because this allowed the participants in getting to know each other. In fact, the 'breaking the ice' phase, which could be seen as a first barrier in the process of building a peer relationship, should not be underestimated. Once the ice was broken, exchange of life experiences, skills and knowledge among teachers has easily followed. This

environment allowed the creation of heterogeneous subgroups, with respect to diversity, which has been considered as a richness by every member. The inter-generational gap, the different curriculum and the different technology capacity of members have been easily overcome. The cross curricular integration of ESD is again important in this phase of the model: it helps to create the relationship between teachers with different interest, but mostly to acknowledge the reciprocal points of strength. The WebQuest has been an extremely useful tool for the majority of the partners, for both teachers and students. The tool is practical and it well support the collaboration of the group. Even if, it has been said that the tool per se will not encourage the interest in ESD field; the interest in this topic should be previous.

It is important also to share in this exposition of effective strategies the Italian experience, because it is peculiar. Italy was the only country that collaborated with an NGO, which brought to the Teacher's PEERMENT Group its expertise in the field of identifying the reliable websites linked to the Educational Sustainable Development. The NGO acts directly around these themes and has tangible experience in climate change, migration and sustainable development. This allowed the NGO to work with the Group in a specified field: identifying the so-called fake news. Unreliable information about Sustainable Development are not only immensely vast and worldwide spread, but also extremely difficult to identify. The NGO gave teachers practical and methodological tools to recognise fake news and through a PEERMENT approach it became easy to involve strategic partners, intensify the networking activities and help interconnections between teachers and experts.

An interesting recurring point that came out from teacher feedback was that teachers often do not feel empowered to deal with controversial issues. This is even more pronounced in countries which are politically divided and which practice tribal politics. In such realities teachers often feel that many SD issues are controversial and might raise an eyelid, leading to fear of censorship, or fear of being labelled politically as siding with one party or another. Such sensitivity to context was an issues that PEERMENT was already aware of before the piloting phase, yet the need to include "dealing with controversial issues" as part of future trainings was an interesting finding that came out from the evaluations. Some interesting work in this regard has already been done by Oxfam (2016).

Sustainability of the project

Although not all Partners think that there will be a structural change in their School/Countries to formally include this approach in their systems, all of them say that a point of strength of this project is its wide replicability, without the need for a top-down intervention.

Peer mentoring will surely be used again, also for other situation, like the introduction of new teachers in the school. The WebQuest as a tool will also surely be used again.

Success stories

PEERMENT, being a project, provided the opportunity to open up the school to the outside world and to move away from the daily "school mode" and towards "project mode", and the opportunities such a mode creates to move towards transdisciplinary and transgenerational settings. Such a mode built on valuing pedagogical freedom allows for ownership and provides the space for personal motivation to translate into new interventions and to influence the themes or entries. The success of the PEERMENT model intersects logistical, cultural, and pedagogical issues.

The model recognises the work and efforts already being done by teachers in meeting informally – sometimes after hours – and often collaborate through closed social media groups. By giving this a name, and acknowledging this as part of the silent but crucial work of teachers, the project builds on what is already happening, and gives it more structure as a way to scale up the provision of ESD in schools, recognising the teachers as experts.

> "*A very positive process which definitely helps you to grow professionally, emotionally, and mentally*" Teacher, Malta).

Evidence of this is the teachers that asked for having more such peer mentoring opportunities as part of the feedback received.

> "*To have more meetings with my colleagues* (Teacher, Italy)".
>
> "*Peer mentoring must become an approach used in the normal training/teaching activities* (Teacher, Italy)."
>
> "*Make sure this is not limited to occasional events. It should become common practice* (Teacher, Italy)."

The European dimension was also acknowledged as a plus (and future) point linked to the model.

> "*It would be useful to collaborate with teachers from other European countries in order to discuss about sustainable development issues and WebQuests* (Teacher, Italy)."
>
> "*More events which provide good opportunities for increased social interaction between mentors and mentees* (Teacher, Italy)."
>
> "*I am very glad to work for this project. Thank you so much for everything that I learnt* (Teacher, Italy)".

The Croatian partner reported these two episodes related to student's success:

1) A student who filmed the windmill could not film it for a minute because of the "too strong" wind, so "the video" lasts only a few seconds. When he told this to his classmates, they were laughing.

2) Students made a decision (under the influence of this process) to partake reforestation of burnt out Carssic land event on 21.3.2020 – the day of the Earth.

The international bonding among teachers has been another successful opportunity that teachers have appreciated.

In the word of the Slovene partner "the exchange of experiences with teachers from Italy in Cervia was also helpful" and after that meeting "the participating teachers are now cooperating with each other on their own initiative and encouraging others".

Another successful story is about the inter-generational work and relationships.

There are more than one experiences reported from the partners to this respect. For example, the Croatian partner experienced that during meetings the younger participants were adept at using ICT, whereas the older ones were leaders in ideas. In the end, they were able to combine these two competencies and the work itself enriched.

Also the Italian partner identified this intergenerational gap as a resource, rather than a problem. They reported that the PEERMENT's key process is to bridge any type of gap, not only the inter-generational one, among the participants. According to them, the inter-generational gap has been overcome by putting everyone at work, making everyone equal and highlighting the pros and cons of each member. In this way, the group, which is focused on working together in completing the assigned task, realized that the inter-generational gap becomes a richness, and this changed the initial prejudices, making the relationship grow into a more authentic one. In addition, "the more the group will work together, the more it will discover that each difference among the members becomes a strength at work; relationships will therefore become stronger and may last even when the project is over."

In the case of Malta, the attempt to set up the **Local Teachers' PEERMENT Training Groups** took much longer than expected. The process included ensuring that the leadership of the school is behind it and this included various meetings. However, once the leadership of the school owned the process, they could involve the whole school, and coordinate the process. The training was given to the whole school. The school administrators also participated in the process as peers, offering an encouraging aspect and ensuring that they are behind it and backing fully and appreciating the efforts of teachers.

PEERMENT Model and recognition

PEERMENT was tasked with piloting a model, which once tweaked according to feedback received, could eventually mainstream peer-mentoring for sustainable development as a reliable tool in attaining the SDGs, in particular SDG 4.7.

The first sets of trainings, both for Educational Specialists, and for Teachers participating in the communities of practice, were necessarily experimental. However, at the end of the process the participants feel that the groundworks have been laid for foundational training in peer-mentoring in education for sustainable development.

The realities on the ground indicate that formalising the training in one standard ECTS format may not be the best way in most contexts. This is because the time slots available are different according to different schools, logistical arrangements and contexts. The partners decided that focusing on a core-curriculum that can be adapted to different contexts was the way forward, at least during the experimental phases.

However, in looking towards the future, the partnership acknowledges that a number of contexts do allow that such trainings are used for the professional advancement of teachers, or to satisfy the contractual obligations of educators to keep up to date in their educations endeavours.

The project has undergone sufficient exploratory work in order to allow different universities and accrediting bodies to design a core course, standardised for compatibility with the ECTS system, that can then be taken up according to the different contexts.

This teacher handbook is designed to provide the necessary "text-book" that can be utilised for such trainings.

The professional freedom of teachers is at the core of such a model, which implies that beyond the featuring of the four main features of the Peer Mentoring for ESD Model already identified, the trainings will be flexible and context and culture specific.

By the end of such a course, it is expected that teachers will be able:

1. To describe ESD

2. To understand how to infuse ESD across the curriculum

3. To identify, explain and discuss the benefits of peer-mentoring

4. To identify, explain and discuss the benefits of peer-mentoring for ESD

5. To identify and make use of reliable websites and WebQuest as tools to design educational experiences and to grow into a community of practice

6. To apply the above according to context

It is expected that such a training will have two practical components:

1. A peer-mentoring for ESD practical component

2. The design of a WebQuest.

The latter can be the "assignment" of the training.

Postscript – Peer-Mentoring for ESD in the time of COVID-19

The PEERMENT project was way into its final year when the Covid-19 pandemic struck all over Europe and the World. As expected, this topical reality brought new fears, new questions, and new opportunities, not least to teachers and educators.

Most teachers ended up teaching online, isolated from each other, and working under huge pressure. Tech savvy teachers supported others who were struggling with new software.

New questions were brought up specifically in conjunction with ESD, not least the need to rethink ESD during confinement and lockdown. Other questions were linked to new needs in relation to peer support and mentoring, including the need to connect and share resources. The necessity to re-imagine a different and better future suddenly became urgent, or perhaps glaringly urgent, since many would argue that the climate change reality and dire poverty were already an urgent call for change.

What seemed not to be put in question is the core focus of the PEERMENT project, in that if anything, its vision of the importance of ESD as a tool to envision a better future and the need to do this in a supporting environment and collaboratively became even more clear.

Combining the challenges faced by some teacher with respect to digital competencies from a both a technical point of view and from a pedagogical perspective, the importance of the capacity building of teachers to lead classes remotely and through online tools became more evident in the COVID-19 era. Merging these challenges with the need for more students to invest in "independent learning", tools such as WebQuests could become more diffuse again, and perhaps more necessary. Covid-19 did present a new opportunity for teachers and schools to make use of ICTs for promoting the SDGs and enhancing the quality of education for all.

The post Covid-19 reality might require specialised training in promoting independent learning though online teaching and methodologies such as WebQuests. This is because WebQuests are well positioned to promote critical thinking on values and lifestyles, and systemic and anticipatory thinking to provide solutions to SD challenges.

It is worth highlighting that many teachers did remark about the ghosting of students during online lessons. This means that some students are not being reached. This also presents new challenges, not least with respect to ensuring a quality education for all and the attainment of the SDGs. It is also not to be taken for granted that students do have access to a computer or to internet, or as reported some had one laptop to be shared among siblings, creating logistical issues of access. Furthermore, the

mental health of the school community and of our teachers remains a cross-cutting priority among all PEERMENT interventions.

Mental health and issues of access and inclusions could well be new topics to explore in circles, possibly supported by education specialists in the coming years, in particular among schools interested in taking up the PEERMENT methodology in the future. It is also understood that the peer-mentoring process – which had already gone partly digital due to logistical issues -might need to be mainly based on a shift from in-person to digital, to cater for possible on and off confinement periods.

The bottom line is that the PEERMENT model can provide a good basis for creativity and innovation among communities of practice focusing on infusing ESD across the curriculum. Since the model was piloted in different realities, contexts and countries, it was already designed to be flexible and adaptable, without compromising on the core idea of connecting with each other, exchanging good practice to enhance ESD provision, and mentoring each other to sustain personal and professional development. This adaptability can very well now include dealing with pandemics.

The questions and answers are constantly evolving, and more experimentation is necessary to further understand how peer-mentoring for ESD can further ESD, the attainment of the SDGS and the need to ensure that no one is left behind.

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