D3.1 COUNTRY REPORTS

SUMMARY AND REPORTS FROM NATIONAL PARTNER LEADS

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Project

CO-LAB (http://colab.eun.org/) is a forward-looking project funded by the European Commission's Erasmus+ Programme, focused on making collaborative teaching and learning a reality in the classroom. Being able to collaborate effectively is a valuable 21st century skill, yet teaching about or through collaboration remains rare in schools because of a lack of understanding of what real collaboration in an educational setting means, and because existing policy conditions do not always enable it to flourish. Practitioners and policy makers need a dedicated space and time to experiment and better understand what collaborative teaching and learning means in terms of policy and practice. CO-LAB provides these stakeholders with that opportunity.

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Partners

European Schoolnet Network of 31 European Ministries of Education | Belgium

NCCA - National Council for Curriculum and Assessment | Ireland

IBE Instytut Badan Edukacyjnych | Poland

DGE - Directorate-General for Education (Direção-Geral da Educação) | Portugal

HITSA Information Technology Foundation for Education | Estonia

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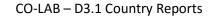
BMB Bundesministerium für Bildung | Austria

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Foreword

CO-LAB is a **forward-looking cooperation project** focused on making collaborative teaching and learning a reality in the classroom. Being able to collaborate effectively is a valuable 21st century skill, yet teaching about or through collaboration remains rare in schools because of a lack of understanding of what real collaboration in an educational setting means, and because existing policy conditions do not always enable it to flourish. The project gives practitioners and policy makers dedicated space and time to experiment and better understand what collaborative teaching and learning means in terms of policy and how it can be implemented in practice.

CO-LAB (December 2015 – January 2018) is **coordinated by European Schoolnet** (EUN), and **funded by the European Commission's Erasmus+ Programme**. The project's partnership consisted of Ministries of Education, teacher training organizations and research institutes from **Austria, Belgium - Flanders, Estonia, Ireland, Poland,** and **Portugal.** Each country recruited teacher trainers, student teachers, teachers, head teachers, policy makers at national level to participate in the project.

CO-LAB's ultimate aim is to contribute to spreading collaborative student learning at classroom level. To achieve this, its operational objective is twofold. First, to offer concrete opportunities to teaching staff to practice collaborative teaching and learning in real conditions, allowing them, based on this experience, to report on the enablers and obstacles they faced and the student achievements they observed. Second, the project aims to understand how educational policy frameworks can support collaborative teaching and learning in the classroom.

In this way, **CO-LAB follows a 'bottom-up and top-down' approach**, **with each national partner playing a central role.** The bottom-up component corresponds to the process of capacity building, equipping teachers with the practical competence to implement collaborative learning and its assessment in the classroom. **Three country workshops** were organised by partners (following common guidelines), to train, support and discuss with participants in relation with the implementation of collaborative learning. Teachers implemented CL learning scenarios in their classrooms, with their experience feeding back into the following workshop discussions. The workshops also offered a platform for the dialogue between the practitioners and the policy makers to discuss the conditions for the policy and regulatory frameworks to support the implementation and generalisation at school and system levels of students' collaboration practice and assessment.

The training delivered via the country workshops was complemented by the **MOOC** 'Collaborative Teaching and Learning' course[1] (first edition in autumn 2016 and second edition in autumn 2017). The MOOC provided the teachers with the opportunity to belong to a Europe-wide community of like-minded practitioners, dedicated to working together to make collaborative teaching and learning a reality in the classroom. The course gives advice from experts and peers, as well as concrete suggestions about how to carry out collaborative teaching and learning in the classroom.

D3.1 Country Reports contains the country report from each of the national partners. The reports follow the template provided by the Educational Research Institute in Poland, who will report on the cross-analysis of the country reports, together with an analysis of the benchmark and follow-up survey data, in **D5.1 Final Evaluation and Recommendations Report** (November 2017). D3.1. starts with an

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[1] http://www.europeanschoolnetacademy.eu/web/collaborative-teaching-and-learning_2nd-edition/course

executive summary, highlighting the different experiences in each country. The country reports follow this, providing the detailed account of the implementation of the project in their country.

1. Executive Summary

The CO-LAB country report offers a unique insight into the experience of implementing collaborative learning (CL) in the six different partner countries: Austria (AT), Belgium-Flanders (BE-FL), Estonia (EE), Ireland (IE), Poland (PL), and Portugal (PT). The Executive Summary compares the different national experiences in the three sections below: 1.1 collaborative learning (CL) and the national context; 1.2 organisation of the project and workshops at national levels; and, 1.3 results of the project and recommendations at a national level. Each of the three sections contain a short summary based on the national country reports. The individual country reports then follow the Executive Summary.

While each CO-LAB partner followed the same guidelines for the implementation of the project, the country-by-country comparisons show significant differences in approach. These differences were anticipated, as at the beginning, the reasons for partners joining the project were different. Countries advanced in their CL thinking were interested to compare their thinking with others, and use the project to continue their trajectory. Others, less advanced, were more interested to use the project as an external stimulus to push for the prioritisation of CL within their respective countries. These differences carry through by reflecting the priority currently assigned to CL within that country, coupled with the type of CO-LAB partner organisation carrying out the implementation. Not surprisingly, the most successful examples of the implementation of CO-LAB project are directly linked to the CL priority in the country, and the partner's direct links to the ministries of education and policy-makers.

In Ireland and Portugal, as seen in section 1.1 below, CL is clearly defined and prioritised at national curriculum level and this supports the CO-LAB national partner in the implementation of the project (summarised in section 1.2). In both Ireland and Portugal, the partner is either directly, or closely associated with the ministry of education. This translates into a systemic approach to the introduction of CL, with the advantage of being able to link to other complementary initiatives, and ready access to stakeholders at all levels of the education system. The national reports show a more intensive approach as befits the priority, with additional training and support being provided. For example, in Portugal, the heavy involvement of Head Teachers in each of the country workshops. In both countries, the local visits to schools in between the workshops, to encourage the teachers in the implementation of CL in their classrooms and provide localised training and support.

In Austria, Belgium-Flanders, Estonia, and Poland, while there is the flexibility for schools and teachers to introduce CL, there is not the same clear, central directive prioritising CL in the curriculum. For each of the CO-LAB partners, this translates into it being more challenging to engage with the various stakeholders in the implementation of the project. There is not the same emphasis and the project competes with other priorities at policy, school and teacher level. Each national partner adopts a slightly different approach to connect CL within the priorities of the national context, linking CO-LAB with complementary programmes to raise the profile and engagement in the project for example: in Austria, building on the eEducation Austria initiative, with its focus on digital media and flexible learning spaces; in Belgium-Flanders, joining forces with another Erasmus Plus project, tMail (mobile teaching and learning), to engage policy-makers in a wider educational debate linked to the results of both projects; in Estonia, basing the second workshop in the HITSA Future Classroom Lab, using the flexible learning space to consider changes in education and support teacher's designing their own learning scenarios; in Poland, building on the close links with the university community, starting the

first workshop with an expert-led session on the psychological basis of working in groups as well as a focus on the research results supporting the impact of CL.

While the implementation of the project differs according to the national priority and context, the reflections captured in section 1.3 from the various teachers implementing CL in their classrooms, are similar. A common obstacle of teachers implementing CL is time; the time to experiment and change to different styles of teaching and learning. A key enabler is the importance of the leadership of the school senior management to support CL, enhanced by a collaborative approach within the school itself. Highlighted throughout is the link of CL to the development of other C21st skills in the students. The importance of softer skills, such as communication skills, the ability to work in groups, to give constructive inputs and feedback to their peers. For all stakeholders, the assessment of CL as a process, presents a common challenge. This was supported in the project, by the CO-LAB centralised training (MOOC) providing training and discussion around the assessment process and the use of rubrics.

The results and recommendations from the country reports that are summarised in section 1.3 reflect the national context.

1.1 Collaborative Learning and the national context

Each country report offers unique insights into the priority given to collaborative learning (CL) at a national level, the impact of which is then evidenced in the following section 1.2 that describes the realisation of the project. The priority assigned to CL in Ireland and Portugal is shown in the national context summaries, which now follow.

1.1.1 Austria

Within the core curricula, CL is not specifically addressed. It is mentioned that "use of IT media is necessary" in all grades. Changes to the education in law in June 2017, give schools more autonomy. In theory, teachers have the flexibility to introduce CL in their teaching and learning. In practice, with no clear CL priority, it is not currently widely incorporated into teaching methods.

1.1.2 Belgium-Flanders

In Flanders, the Ministry of Education and Training (MoE) is responsible for all stages of education and training starting from pre-primary education. Schools and teachers have a large amount of autonomy, but in practice seldom use it in full. Within the hours they have for their subjects, teachers can use active approaches such as CL. They can use whatever methodology they prefer to teach their subjects, be it group work, project work, CL etc. "Eindtermen" are the attainment targets every pupil or student has to reach by the end of primary and/secondary education. They are currently being revised after public consultation as part of the wider reform of secondary education, the "modernisation of secondary education" programme.

1.1.2 Estonia

The national curriculum highlights the importance of integrated and inter-disciplinary studies, implementation of innovative learning and assessment methods, as well as developing pupils' skills regarding cooperation and communication. Each school can create their own individual syllabus based on the national curriculum. Teachers also have the freedom to introduce new teaching methods,

including CL. However, similar to Austria, with no clear priority for CL at a national level, it is dependent on the head-teacher and individual teacher motivation to drive change.

1.1.3 Ireland

CL is embedded in the Irish Curriculum. CL is a stated principle of the Irish Primary Curriculum and it is embedded in post-primary education through the Key Skills framework. Students are encouraged to take on participatory and collaborative roles in learning, and these roles and practice are incorporated in all stages of education. Even with this national level priority, the scale of implementation of CL in the classroom varies. The assessment of collaborative skills is considered challenging, with a recent project 'The Collaborative Assessment Alliance' project focusing specifically on this area.

1.1.4 Poland

In the Education Act only two articles mention forms of collaboration in education activities, e.g. Article 44 cites "Lower secondary school students participate in the educational project, which is a team project, a planned action by students, aimed to solve a specific problem using a variety of methods". Few teachers use a form of group work in educational activities. It is evidenced mainly in physical education and foreign language classrooms, which enforce this form of working as it fosters both natural communication in sports and enhances the language skills of students.

1.1.5 Portugal

The educational system in Portugal is undergoing great change, with the introduction of a new student profile. This profile intends to draw guidelines for students when they reach the end of upper secondary education. The "National Project Promotion for School Success" is a challenge made by the Ministry of Education for schools and headmasters to implement innovative measures to increase student success. This has led to a pilot of about 200 schools (25%), who have been given the freedom to change pedagogical practices. The methodology of collaborative teaching in the classroom is integral to this change.

1.2 Organisation of the project and workshops at national level

As well as the priority given to CL at a national level, the country reports reflect the diversity of the CO-LAB partners[2] and how this has influenced the implementation of CO-LAB in their country. Of the six country partners, three are linked to the Ministries of Education in their countries (BMB, Austria; NCCA, Ireland; DGE, Portugal), the others are more autonomous representing a mixture of institutions delivering educational research and projects training teachers (GO!, Belgium-Flanders; HITSA, Estonia; IBE, Poland).

1.2.1 Austria

Bundesministerium für Bildung (BMB) is the Department for ICT-Didactic and Digital Media. BMB works directly with schools and teachers, and the CO-LAB project builds on previous educational technology projects, such as iTEC (innovative technology for an engaging classroom) and CCL (Creative Classrooms Lab). eEducation Austria combines the various initiatives on the use of technology with meaningful pedagogic scenarios and added value for school development. In the project, CL was linked

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to the Future Classroom initiative, developing flexible learning spaces to support the development of students' C21st skills.

Realisation of the CO-LAB workshops

- Workshops involved around 40 to 50 participants, involving mainly teachers, with policy-makers and teacher trainers. Pupils were also involved in workshop 2 and 3. Workshops were held in teacher training institutions offering the opportunity for participants to explore the concepts of future learning spaces alongside CL.

- Support was provided throughout the project by BMB, with a national blog and support in schools for the teachers using the eEducation network with their regional coordinators and local school coordinators.

- Experienced practitioners led the training on CL learning scenarios and experts were used to introduce CL concepts, and provide motivation and inspiration to teachers through a mixture of presentations including:
  o Peer Assessment via Social Video Learning
  o Education Innovation Studio (EIS) and the Future Learning Lab (FLL)
  o Student participation showcasing their CL projects.

- The mixture of workshop training and local support proved to be most successful. Few participants took advantage of the central CO-LAB online training (MOOC) due to: language (English), timing (clashing with exams), and pressure on the amount of time required to familiarise themselves with the MOOC (not a common method of training in Austria) and to participate. Now with the experience of the project, there is motivation to participate in the CO-LAB MOOCv2 (September 2017).

1.2.2 Belgium-Flanders

HET GEMEENSCHAPSONDERWIJS - GO! Onderwijs van de Vlaamse Gemeenschap is an autonomous body of the Flemish government that functions independently of the Flemish Minister of Education. GO! was established by parliamentary decree in 1998. It is the network of official, non-religious, "neutral" schools in Flanders and Brussels.

Realisation of the CO-LAB workshops

- The workshops proved problematic in the implementation of CO-LAB. The first and second workshops attracted only teachers (35 and 20 respectively), with the second workshop having to be rescheduled to increase attendance and continue to focus mainly on dissemination and exchange of practice during the workshop itself.

- Upon investigation, it was found that despite the high initial expressions of interest from teachers in the CO-LAB MOOC (350), teachers were put off by a mixture of language (English), the short period to conclude each module (1 week) and conflicts in timing (busy school period).

- The final workshop focused on policymakers, joining together with another Erasmus+ project tMAIL (teaching self-regulated learning to teachers) to successfully attract a mixture of 27 policy-makers (all levels) and engage them in a wider education debate.

1.2.3 Estonia

The Information Technology Foundation for Education (HITSA) is a non-profit association established by the Republic of Estonia, the University of Tartu, Tallinn University of Technology, Eesti Telekom and

the Estonian Association of Information Technology and Telecommunications. The role of HITSA is to ensure that graduates at all levels of education have obtained digital skills necessary for the development of the economy and society and the possibilities offered by ICT are skilfully used in teaching and learning at all levels of education.

Realisation of the CO-LAB workshops

- Workshops involved 10 to 20 participants, with the first workshop focusing on headmasters and CPD providers. The mix changed to involve the teachers implementing CL in their classrooms. Workshops were held in HITSA's Future Classroom Lab, providing the opportunity to discuss flexible learning spaces. HITSA works mainly with practitioners rather than policy-makers. They found it difficult for them to engage with policy-makers, and the topic more attractive to practitioners.

- Support was provided throughout the project by HITSA, with all materials available via a shared google drive.

- Following the introductory workshop, an expert teacher, trainer and CL practitioner led workshops 2 and 3, inspiring and motivating the teachers to:
  o Consider changes leading to CL: education, learner, digital competences
  o Explore Learning Scenarios (LS): examples, tools, designing own LS
  o Share practices, tips and ideas on implementation: planning group-work, changes in approach to learning.
  o Focus on assessment methods: criteria, scales

- The workshop training led by the expert teacher proved to be most successful. Few participants took advantage of the central CO-LAB online training (MOOC) mainly due to language issues (English). Now with the project experience, similar to Austria, there is motivation to participate in the CO-LAB MOOC second edition (September 2017).

1.2.4 Ireland

The **National Council for Curriculum and Assessment (NCCA)** is a statutory agency of the Department of Education and Skills in Ireland. The Council advises the Minister for Education and Skills on curriculum and assessment for Early Childhood, primary and post-primary schools. The CO-LAB project aligns closely with their curricula reform work.

Realisation of the CO-LAB workshops

- Schools were targeted, with 17 schools engaged in the project (13 post-primary, 4 primary). The National University of Maynooth (NUIM) was also engaged in the project, involving a group of Initial Teacher Education (ITE) 3rd year Science education students.

- The workshops involved around 60 to 70 participants, comprising a mixture of pupils, teachers, student teachers, teacher trainers, experts and representatives from a wide variety of different education bodies (Teaching Council, Education Training Boards, the Inspectorate, Professional Development Services for Teachers) reflecting the priority of CL at a national level and integrated approach.

- A wide programme of support and resources were provided throughout the project by NCCA, made possible by additional investment. A mentor approach was adopted, where each of the schools involved was appointed an NCCA Education Officer to act as their mentor. The mentor visited schools, observed classroom implementation and offered support to schools on a

theoretical, pedagogical or technical level. This building of relationships contributed to the success of the project in many schools.

- Workshops involved a mixture of keynote speakers and workshop discussions, examining:
  - o The use of E-Portfolios: to document the journey of a piece of work, reflecting on the type of students, the kind of activities, and how to document softer skills such as 'group-work'/''team-player';
  - o How the use of rubrics can be used for designing truly collaborative learning activities.
  - o The exchange of experience with teachers who had begun to embed elements of student-centred, collaborative approaches into their pedagogies and were beginning to see a host of observed student outcomes consistent with 21st century skills.
  - o Presentations and market-place sessions to showcase results and experience and encourage peer-peer exchange. In the final workshop, this included students giving feedback as part of 'Voices from the Classroom'.
- The profile given to the workshops and their mixture of training and workshop style discussion and exchange proved to be very successful. Fewer participants took advantage of the central CO-LAB online training (MOOC). Amongst those that did, some felt pressured by too much to do in the allocated time (CO-LAB MOOC second edition allocates more time). The ITE students also took part in the MOOC, meeting once a week to discuss their progress and felt this was crucial to help them successfully complete all stages of the MOOC.

1.2.5 Poland

Instytut Badan Edukacyjnych (IBE) is an institution conducting interdisciplinary research concerning the functioning and effectiveness of the education system in Poland. In the implementation of the project, they were supported by Polish partners, Mazowieckie Samorządowe Centrum Doskonalenia Nauczycieli (MSCDN), Warszawskie Centrum Innowacji Edukacyjno-Społecznych (WCIES) and the Faculty of Pedagogy of the University of Warsaw (WP UW) was responsible for the recruitment of project participants, workshop training and also supporting MOOC training of project participants i.e. teachers, future teachers and the trainers.

IBE is also responsible for the evaluation study of CO-Lab, drawing together the analysis of the benchmark and follow-up survey questionnaire, together with the analysis of the MOOC and the cross-analysis of the country reports in D5.1 Final Evaluation and recommendations report (November 2017). The country report from Poland offers a more detailed analysis than the other country reports, reflecting its wider research remit. The report includes detailed evidence, including e.g. additional research carried out by student teachers under the guidance of their tutors. This richness of approach is captured in the Poland country report that follows in the next sections after the summary.

Recent changes at a national level, have not made a significant difference. For both students and teachers there is still a lack of coherent, well defined ideas promoting collaborative learning and groups work in education law.

Realisation of the CO-LAB workshops

- Workshops involved around 50 participants, involving mainly teachers, counsellors, teachers-consultants, representatives of the Centre for the Development of Education and local education authorities, with one representatives of the Ministry of Education.
- The task of the partners was to implement the idea of teaching and learning through collaboration in activities directed at teachers (MSCDN and WCIES) and student – future

teachers (WCIES). Participants took part in 3 workshops at IBE premises, supported by online training via the CO-LAB MOOC, online discussions on project topics, evaluation of the impact of the project on early childhood education and academic education; development of the feedback on the use of acquired knowledge in practice. As well as information being provided to participants via the IBE website, there was a Polish fun-page project on Facebook.

- Workshops involved a mixture of expert talks and moderated workshop discussions, including:
  - o Starting the first workshop with an expert-led session on the psychological basis of working in groups. This included a short lecture and presentation, followed by group discussion on the group process (practice of group work in classrooms, factors for facilitation of work in groups, barriers for work in groups, the needs of participants to raise the level of their ability to apply the method of CL).
  - o Moderated workshop discussions to share examples of good practices in the chosen subjects, such as biology, history and English.
  - o Sharing innovative approaches to group learning, the differences between CL and group-work, CL learning scenarios and training to support the development of teacher competences. This included a CL lesson scenario for a group of students with special education needs.
  - o Sharing best practice of creating conditions for interaction in the school community, the importance of leadership and creating an atmosphere facilitating the cooperation of teachers and students.
  - o Sharing of best practices and ideas from the implementation of the project. And a session on Group work assessment and individual assessment.
  - o Collection and sharing of additional research data to support the implementation of CL, carried out by the student teachers, under the guidance of their faculty tutors, on the topics of self-assessment in early school age, non-verbal teacher communication in CL organisation, and collaboration on academic activities (ref. Poland Country Report).
- Participants experience in the workshops proved to be the most valuable aspect of the project. Their experience of the central CO-LAB online training (MOOC) was frustrated by some technical constraints of the platform: although key content was translated to Polish, it proved difficult to access the translated content on the platform; and similarly, the exchange of scenarios for peer-reviewing was done automatically by the system, resulting in Polish participants getting scenarios in English making their assessment more limited than if it had been possible to exchange and peer-review only Polish scenarios. Some of the teachers who were not confident in their English language skills, were also unable to *actively* exchange opinions with peers in other countries via the Padlets in the MOOC.

1.2.6 Portugal

DGE is the Directorate-General for Education (Direção-Geral da Educação) of the Portuguese Ministry of Education. DGE's specific purpose is to make sure that national policies are implemented regarding the pedagogical and didactic components of pre-school, primary, lower and upper secondary education, as well as the provision of education for children not attending school.

Similar to Ireland, CL is aligned with the significant changes taking place across the national education system. Similar to Austria, it builds on previous future learning projects such as iTEC (innovative technology for an engaging classroom) and CCL (Creative Classrooms Lab). It complements the policy of creating Future Classroom Labs in schools across the country, supported by regional teacher training

centres, with the aim of supporting widespread change as evidence by the National Project of Promotion for School Success.

Realisation of the CO-LAB workshops

- The numbers participating in the CO-LAB project reflected the national drive to embed new learning approaches in schools. CO-LAB was open to all schools that wanted to participate. School headmasters were targeted in the first instance and invited to select teachers who wanted to be part of this project. A Facebook support group with about 900 members was set up as the main form of communication. The workshops themselves had around 220 participants (workshop 1: mixture of teachers, student teachers, school directors, regional learning centre directors, policymakers), with follow-up workshops focusing more on the teachers and involving around 110 participants.

- Given the national focus, the three workshops were held in different regions, providing participants with an opportunity to see different schools and settings. Similar to Ireland, the national coordinator of the project was supported by two colleagues in the pedagogical area and throughout the project, the team visited the schools supporting educational days, allowing them to observe, as well as providing input and feedback. This hands-on approach created a greater dynamism for the dissemination of the project.

- Workshops involved a mixture of keynote speakers and workshop discussions, including:
  - The vision for the head-teacher, with headmasters working together and using a SWOT (strengths, weakness, opportunities, threats) analysis to discuss issues around the implementation of CL in the school;
  - Teachers discussed the implementation of CL learning scenarios in the classroom, with reference to eTwinning collaborative work.
  - T^he exchange of CL experience and good practices across different education phases and school clusters, including the perspective of the head teacher, formed the basis of the follow-on workshops.

- The national profile and support given to the project, resulted in good representation and participation by all the different stakeholder groups in the workshops. Contrary to the other national partner's experience, the central CO-LAB online training (MOOC) proved highly popular with participants and is cited as being one of the main aspects of the teachers' adherence to the project, since the quality and content addressed in the MOOC, helped the teachers to understand what collaborative work is and also to clarify doubts through discussions with peers. In Portugal, teachers are very familiar with online training and participation in MOOCs. Similar to other countries the main constraint of the MOOC was that it was in English. However the support via the Facebook page helped overcome this.

1.3 Results of the project and recommendations at national level

Regardless of the implementation approach adopted by each country, the results and recommendations are similar. The rubrics of CL and assessment of CL have proved most helpful to all teachers involved. Commonly cited amongst the enablers were factors such as a 'buddy'/mentoring system to support the teachers in the implementation. 'Time' is cited most frequently as one of the biggest obstacles, the time both to experiment with CL, and time to implement CL within existing lessons structures. Recommendations converge on the need to support the teacher in the assessment of CL, and the importance of engaging with Head Teachers to support the culture of CL within their school and the importance of using data to engage policy-makers in showing the impact of CL in raising student attainment.

1.3.1 Austria

Implementation of CL faced similar challenges to those connected with other innovative didactic approaches – practitioners are generally interested, but with no clear stated priority, there is no direct impetus to support teachers in the widespread implementation CL in the classroom.

Implementation in the classroom – changes towards CL, enablers and obstacles

- Changes across the three workshops:
  - Definition of CL has become much clearer;
  - Teachers, teacher trainers, headmasters, and authorities share the opinion that CL is a valuable addition to teaching methodology;
  - For students, these learning processes seem very natural and authentic.
- Enablers: team-teaching - a "buddy system" (both for teachers and students); working with prototypes and templates (example CL learning scenarios, rubrics); being aware of the time perspective and taking time for the CL processes.
- Obstacles: student behaviour and familiarity with CL working processes; infrastructure (technical, physical layout); constraints of lesson time (50 mins); assessment (how to assess CL, the pressure of standardised tests).

Recommendation: highlights the grading and evaluation of students' performance being the critical aspect with CL, with steps required to support teachers' professionalization.

1.3.2 Belgium-Flanders

Reflecting the different implementation experience of CO-LAB in Belgium-Flanders, the resulting two workshops for teachers focused primarily on dissemination and information, with practical workshop sessions and discussion on CL during the workshops themselves. A separate policy-maker workshop was held jointly with another Erasmus+ project, tMAIL, to widen the education debate.

The actual implementation of CL in the classroom by teachers proved impossible to track, partly due to data privacy issues preventing the disclosure of the email addresses for the Belgium teachers participating in the CO-LAB MOOC. Results therefore are sporadic, relying on secondary data such as an article published by one of the Belgian teachers involved in the CO-LAB MOOC, in the magazine of the Ministry of Education "KLASSE", who was very positive about the usefulness of CO-LAB and the MOOC for her as a new practitioner starting with CL in her class: "Dare to be innovative as a starting practitioner". Article available here: www.klasse.be/75146/durf-innoveren-als-startende-leraar

Recommendations from the policy-makers to increase the motivation of teachers to participate in the online training included, the validation of results (e.g. official, open badges, block chain technologies), plus the use of competitions, prizes, support for content co-creation and displaying results. Similar to other countries, the assessment component was also flagged by policy-makers, as being a key feature of CL, both in terms of the teachers' learning process, and for them to be able to implement assessment with their learners. The need for data from research and learning analytics was also stressed, for both policy-making and for training providers.

1.3.3 Estonia

Implementation of CL in the classrooms was mixed, although headmasters and teachers were knowledgeable about the concept of CL, not many had actual and in-depth knowledge in implementing CL in the classroom.

Implementation in the classroom – changes towards CL, enablers and obstacles

- Changes across the three workshops:
  o Teachers became more positively minded about using CL in the classroom, highlighting that sometimes the learning process is even more important that the learning outcome as it teaches about collaboration which is an important 21st century skill.
  o The most important benefits that participants gained were the knowledge about how to develop a learning scenario and how to prepare a CL rubric.
  o While understanding that CL is important, the one topic that was more complicated for teachers, was how to assess collaborative learning and group-work. It is easier to assess the result, but more complicated to assess the process. This led to the focus on assessment in the 3rd workshop. Sharing experiences and ideas is very important, and the rubric proved to be a good and helpful tool.
- Enablers: fun and interesting learning for the students; support of school leadership; good planning and CL learning scenario.
- Obstacles: time and motivation of the teacher– it is difficult for teachers to implement new and innovative approaches to teaching, being easier to stick to traditional methods to deliver to the curriculum and syllabuses; few good examples and experiences of implementing CL to share.

Recommendation: participants understood at the beginning that CL is important. It is important to provide an opportunity (such as in the CO-LAB project) for headmasters/teachers to gain more knowledge about why it is important and how to implement it in the educational field and at school level.

1.3.4 Ireland

Implementation of CL in the classrooms: the setting up of the 'market-place' event where every school could showcase/demonstrate the CL activities in their schools/classrooms allowed teachers from other schools and policy-makers to get a feel for what is happening in the schools and ask questions of each other.

Implementation in the classroom – changes towards CL, enablers and obstacles

- Changes across the three workshops:
  o The adoption and use of CL rubrics to help with the development of authentic collaborative tasks. As teachers applied the CL rubric to tasks, they came to realise that for assessment to be valid it must include measurement of collaboration as well as knowledge;
  o Increasing confidence from the sharing of practice, peer exchange and discussions with teachers representing a broad range of CL experience;
  o The inclusion of students in the final workshop ('Voices from the Classroom') providing insights of their understanding of the CL process: provision of clear guidance; clarity of each member's role and responsibility; collaborative approach throughout all phases,

including initial design as well as development; communication between members as a central tenet; importance of briefing and debriefing sessions.

- Enablers: reform in the primary and junior cycle which allows for different approaches to assessment and more flexibility in organising the experience of the curriculum; tangible CL activities using the rubric; methods of recording the evidence of CL; teachers building CL in stages/cycles; utilising technology to support the process; importance of self and peer assessment and feedback, coupled with peer teaching and peer-peer student learning. The extent of 'teacher belief' is both an enabler and an obstacle. If teachers and school leaders support and believe in collaboration as being important, then 'time' becomes less of a problem as 'time' can be allocated for this type of learning, and therefore 'time' becomes less of an obstacle.

- Obstacles: time for teachers to implement CL in schools; industrial relations with respect to the reforms and the pressure of initiative overload; the exam system, with work being completed individually.

Recommendations: teachers need help with designing authentic collaborative tasks and assessment - the rubric was seen as most helpful in support of this; the mentor system was a huge success, with the targeted intervention keeping schools on track; more help; teachers need to focus more on the learning outcomes rather than on the content – how collaboration supports learning as a process (ref 'Voices from the Classroom' above)

1.3.5 Poland

Implementation in the classroom – changes towards CL, enablers and obstacles

- Changes across the three workshops:
- At the start, most teachers identified CL as work in groups, however with a different role of a teacher and student in the process. Only a few really understood the difference between collaboration and cooperation.
  - o Participation in the project provided teachers with a deeper knowledge on CL methods and the differences between commonly known group work and CL. The 21CLD rubric was practical and useful for teachers to develop their working methods, expanding to a more complete CL form.
  - o Most of the participants were convinced that group work is a valuable teaching form as it develops social skills that are needed in the labour market.
- Enablers: good knowledge of the core curriculum to use forms of group-work; proper planning of CL work and time by the teachers; identification with the teachers and students of the principles of collaboration applicable in group work; knowledge of the goals of both the teacher and the student; fair evaluation of CL in different forms (self, peer, formative, teacher).
- Obstacles: implementation of teaching content following only a text book, with a focus on the message and not on the skills; the teachers' misinterpretation of the content of the textbooks, thinking they contain everything that is needed to realise the core curriculum; rigid, often inadequate interpretation of the provisions of educational law e.g: on core curriculum, lesson schedules mainly by school principals and leading bodies (school owners); parents for whom a good school has a high ranking (results) position..
- how to select students to a group; constructive solutions for students hindering group work; assignment of tasks and materials with the ability to compare the work of different groups; right organisation of space.

Recommendations: for teachers - the specification of how CL group work should be understood and systematically evaluated; for headmasters – supporting more flexibility in the organisation of school work to enable integrated and collaborative teaching; for continuous training institutions – to promote teacher training for CL methodologies and group work assessments; for policy makers – to systematically implement the CL method with engagement of education stakeholders at all levels. In addition, setting up a CL teaching tools database to inspire teachers of various subjects, with practical examples of didactic solutions ready for school use; and a space for exchanging experiences and reflections on collaborative work

1.3.6 Portugal

Implementation in the classroom – changes towards CL, enablers and obstacles

- Changes across the three workshops:
  - Overall, teachers' knowledge and confidence in the implementation of CL grew across the workshops, supported by the MOOC, the large number of CL resources available via the Facebook, and the experience being shared by teachers having put it this type of methodology into practice.
  - Teachers also greatly appreciated the visits to schools, explaining the philosophy of collaborative work was very important.
  - The result was a large number of teachers put CL input practice.
- Enablers: the rubrics help to conceptualise more objectively and productively the learning activities; establish cooperative work between teachers to support sharing of experience and build on teacher motivation; involve students in the assessment process with the construction of e.g. diaries, questionnaires to support the evaluation; sensitise the leadership to operationalise the change, with an integrated approach supporting at all levels.
- Obstacles: time for teachers to implement CL in schools; digital competences and technical skills of teachers; resistance to change, traditional methods preferred over collaborative work; fear of inspection, non-compliance and external examination results; financing infrastructure to support; misunderstanding of parents.

Recommendations: at national level there must be a well-defined policy by the Ministry of Education that promotes these changes through laws, orders and legislative changes; headmasters are the key players in this change, change must be made at the level of the whole school, if headmasters realise that CL methodology can help improve student achievement, encourage success, and reduce dropout, they become the facilitators of the change; the primary focus of the change is the teacher who needs support within the school and with training; working together with teacher training institutions is fundamental to disseminate CL, support training in CL practice and methodologies; CL brings new ways of looking at the classroom, especially the dynamics, since the students play a more active, interactive and autonomous role, with the workshops cited in locations with Future classrooms supporting the CL with opportunities to consider flexible learning spaces.

1.4 Conclusions from the country reports

As mentioned in the Foreword, the cross-analysis of the individual country reports, together with the benchmark and follow-up survey will be provided in *D5.1 Final evaluation and Recommendation Report*.

Summary of the conclusions from the individual country reports

At a national level

- Linking CL to the vision and national priorities for the education of learners is required to support the success of the widespread implementation of CL within teaching and learning.
- Mainstreaming CL as part of developing pupils' 21st century skills needs clear definitions with unambiguous learning outcomes, aligned to changing national curriculum goals and priorities.
- Assessment of CL needs to be considered against current national examination system.
- A phased introduction of CL is required, providing examples, evidence and resources to support peer exchange at all level of the system (policy, school, classroom).

At a school level

- Head-teacher and senior management team understanding and support to introduce and demonstrate CL at all levels, is key in motivating the teachers to experiment and take the time to learn and practice this new teaching method.

At the classroom teacher level

- Understand CL is a process, needing time to plan, and implement.
- Training in the CL rubrics, design of CL learning scenarios, assessment and consideration the softer skills pupils require to be successful in working collaboratively (e.g. guidelines, importance of communication, collecting evidence of the process to support assessment).
- Support from a mentor or having buddy system either in the school, or through networks such as eTwinning, provides useful feedback for reflection, motivation and support through the process.

At the classroom pupil level

- Understanding CL is a process, getting involved in the design stage of the CL activity and the assessment, as well as in the development stage.
- Training to support the process is important, for example on the different roles and responsibilities and the reliance on each other for the outcomes, to support development of soft skills (e.g. communication and feedback) and to highlight the importance of collaboration as a life skill.

2. Country Reports

2.1. Austria

2.1.1 Introduction

The significance of a great variety of methods and scenarios for the success of teaching and learning is considered in many initiatives and projects in the Austrian education system. Among them, also collaborative learning plays an important role. Teacher training colleges have provided experimental settings and pilot projects for years, focusing on suitable didactic scenarios that support project based work. One challenge has always been the aspect of grading in the context of project based teaching, or collaborative learning. Therefore, the Ministry of Education decided to take part in the project Co-Lab. It saw the chance to discuss opportunities and challenges connected to collaborative learning with scholars and practitioners, experts in the field, but also to set in motion professional development of pedagogues.

The Ministry participated in many previous projects like Calibrate, MELT (on content) and iTEC and CCL (on methodology/pedagogy in education). Many Austrian schools have experience where to find relevant content as well as how to teach in new, innovative ways. In iTEC (innovative technology for an engaging classroom - FP 6 -grand agreement: 257566) pedagogical ideas were developed and subsequently more defined within CCL (Creative Classroom Lab grand agreement: 535899-LLp-2012-1-BE-KA1-Ka1ECBETB).

Working in groups and collaborative learning in schools in national legislation

Within core curricula (content based – not methodology based) Collaborative Learning (CL) is not addressed. It is mentioned that "use of IT media is necessary" in all grades.

In Austria, all teachers have no defined methods of how they are teaching – there is no instruction of the way they are teaching – it is solely up to them as long as they follow the curriculum. A teacher can use tablets or smartphones if he/she decides so.

There is no instruction for assessment CL. In some cases teachers and headmasters use their own models based on teacher professional education for assessment offered by various teacher training institutes. It is clearly defined that only teachers are allowed to assess a student.

Teachers receive no extra payment for using CL in their classes. Regulations exist for the number of hours per subject and grade – this means depending on the subject the number of hours per week are defined. Teacher remunerations are clearly defined by law – depending on the grade of teaching and the time of teaching a fixed salary is defined. A headmaster has nearly no chance to change the remuneration.

How has it changed within recent 2-3 years? Do these changes support CL?

The law concerning change in education passed parliament on June 29th, 2017 that schools get more autonomy. The major target of the law is to give the schools more autonomy (e.g. choose their own teachers etc.), define school clusters with one headmaster/headmistress, etc.

The teaching methods remain the same as teachers are by law allowed to teach according the curriculum with their own methods.

However, all these proposed changes have nothing to do with CL – we will still have to stick to the clear definitions of the individual curricula.

2.1.2 Realisation of the workshops

Workshop 1

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

Workshop 1 happened at PH der Diözese in Linz on May 18th, 2016 with 48 participants: 2 students, 20 teachers, 7 teacher trainers, 19 policy makers.

Objectives of the workshop

- Introduce the project
- Motivate participants to inform others about the project
- Participate in the online survey
- Think about using more MOOC's for the teaching process, get experience from the project and use ideas from the MOOC for own online courses

Description of sessions (agenda, what happened during the workshop)

- Introduction by Katja Engelhart (EUN) about EUN, the aim of the project and references to FCL, other interesting projects by EUN
- Martin Bauer (Head II/8) and Stephan Waba introduces eEducation Austria www.eeducation.at motivate participant to disseminate the project for other – especially policy maker.
- Karl Lehner (Deputy Head II/8) asked for commitment into the project to get feedback, especially after the participation in the MOOC
- Bernhard Racz (CO-LAB coordinator, Austria) presented the project
- Discussion about the way in teaching CL, how to motivate teachers in school to participate in the MOOC – because if the expectation of the teachers are not met – they would never participate in a MOOC again and about the time used for the MOOC.

Raised issues. Brief conclusions from the workshop

- Broad interest in the project.
- Not all participants committed for the project – the MOOC will be in English and the time consummation for the MOOC could be a problem for teachers. Some teachers fear that within an international project the local situation will not be recognized.
- Especially inspectors and teacher trainer are a little sceptic about the time used for the MOOC

Workshop 2

Blog posting online at: http://zli.phwien.ac.at/co-lab-country-workshop-2-an-der-ph-wien/

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

The mid-term workshop 2 took place at PH Wien on February 28th, 2017 with 48 participants: 22 students, 10 teachers, 7 teacher trainers, 9 policy makers.

Objectives of the workshop

- Giving and receiving feedback on the MOOC
- Introducing innovative collaborative concepts of the PH Wien in connection with the new EIS (Education Innovation Studio).
- Carrying out two parallel discussion rounds, one group of practitioners and one of policy makers. At the end the results were shared in the plenum.
- Collecting results and insights gained through the discussions.

Description of sessions (agenda, what happened during the workshop)

- o http://zli.phwien.ac.at/wp-content/uploads/2017/02/Co_Lab_-country_workshop_270217_AGENDA.pdf
- o After a brief introduction, feedback on the CO-LAB MOOC was given by Bernhard Racz (CO-LAB coordinator, Austria) and Dorothy Cassells (CO-LAB, EUN senior adviser).
- o Reinhard Bauer (PH Wien) talked about a current international project at PH Wien that circles around „Peer Assessment via Social Video Learning"
- o Then Michael Steiner (PH Wien) presented innovative concepts of the PH Wien in connection with the new EIS (Education Innovation Studio).
- o Students presented the various steps of the concept in form of working in stations (Stationenbetrieb).
- o After that there were two parallel discussion rounds. At the end, the results were shared and put on the blog.

Descriptions of (the most interesting) good practices in CL, if they were shared during the workshops

- Getting to know the innovative concept of PH Wien in various stations
- Peer assessment via social video Learning in an electronic portfolio
- Using rubrics for assessment in class, CL is included in some parts

Raised issues

- Pros and cons of the CO-LAB MOOC
- peer assessment via social video Learning
- Good practice examples of collaborative groups work
- Enablers and problems
- Assessment of group work with and without rubrics

Workshop 3

Blog posting online at: http://zli.phwien.ac.at/co-lab-debriefing-workshop-an-der-ph-wien/

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

The debriefing workshop took place at PH Wien on May 31st, 2017 with 40 participants: 12 students, 11 teachers, 8 teacher trainers, 9 policy makers.

Objectives of the workshop

- **Keynote and discussion of experiences** with "Collaborative Teaching and Learning"
- Introduction of the **new labs** used for collaboration at PH Wien (Education Innovation Studio, EIS, and Future Learning Lab, FLL)
- Introduction **of two collaborative learning settings** (one for maths, one for art)

- Two **discussion rounds** in two mixed groups (practitioners and policy makers)

Agenda of the workshop

http://zli.phwien.ac.at/wp-content/uploads/2017/05/Co_Lab_-debriefing_workshop_310517_programm.pdf

Description of sessions (what happened during the workshop)

- **Keynote speech**: "Collaborative Teaching and Learning" by Gabi Jauck (high school in Zell am See)
- After the **keynote** there was a **discussion** on "Collaborative Teaching and Learning" on the role of infrastructure and learning environment to support teaching
- Then the participants could see two **different learning settings.** Students of NMS Schopenhauerstraße in Vienna introduced one collaborative project in Maths and one in Art.
- After that there were **two parallel discussion rounds**. At the end, the results were shared and put on the blog.

Descriptions of (the most interesting) good practices in CL, if they were shared during the workshops

- The two settings the students presented can best be seen on the blog posting.

Raised issues

- Definitions of collaboration
- Good practice examples (subject, room, time, etc.)
- Enablers and problems
- Assessment

2.1.3. Results of the workshops and of the project

Understanding of collaborative learning

How did participants understand CL?

The project motivated the participating teachers to use CL *(or at least to try it out)*, because of:

- Self-organized and self-paced learning and working of students in various roles and in teams.
- The whole is greater than the sum of its parts.
- Constant (peer) feedback is very important.
- Concentration on students' strengths instead of their weaknesses and mistakes.
- Students take on different roles and can show what they are good at.
- No hanger-ons (everyone has to contribute).
- Through collaboration new creative things can emerge.
- Results take more space and time than contents of lesson planning.
- In comparison to lesson planning, the process of learning is more important and has an additional value.

What changes were there to the understanding of, opinions about, and attitudes towards CL across the 3 workshops (before, during and after)?

- **Definition of CL** has become much clearer to participants how they can use CL in their daily lessons.
- Collaboration is essential for the **students' future and career.**

- **Empathic skills of students** in dealing with each other have become more important.
- **Buddies** (older students from other classes) who are there to **support students** could be important as teachers are more involved in lesson processes and in supporting individual students.
- **Co-creative learning** and **interdisciplinary learning**

What differences (if any) were there in the opinions and attitudes towards CL between teachers, teacher trainers, head teachers and authorities?

- Teachers, teacher trainers, head masters and authorities share the opinion that CL is a valuable addition to teaching methodology.
- For students these (problem-based) **learning processes** seem very natural and authentic.
- The **use of technology** like mobile phones in class has become different (digital natives live and work differently) .
- CL is very important even on a larger scale **– supports democracy.**

Enablers and obstacles for the use of CL

OBSTACLES

- Partly **egoistic behaviour** of students (they do not participate), fear of **being embarrassed**, **bullying** if the teacher cannot watch everything and everybody.
- **WLAN** that doesn't work, **infrastructure**
- **Curricula** and **lessons of 50 minutes** (more time per topic/project would be necessary)
- **"Modulare Oberstufe"** – teaching in a framework of terms
- At least **two lessons in a row** are necessary to work in teams collaboratively. – it's very difficult to organize that.
- There are **(standardized) tests** students have to pass despite group work.
- **Assessment** is difficult – how to assess the individual student in a group process?
- At first students **may not be used** to that kind of working processes.
- **Extra rooms** for projects like the library, the corridor, etc.

ENABLERS

- **Inclusion** works really well if students help each other and peers help weaker students.
- **Team-teaching** is very helpful.
- Students develop **problem solving strategies.**
- **Teachers** are **coaches.**
- Working **with prototypes and templates** is easy and works well in class (e.g. students work together and create a prototype)
- Using **digital tools** is helpful: e.g. saving group results on PADLET

How participants ensure enablers and <u>*overcome obstacles*</u>*? Good practice in solving problems and making CL possible.*

- **Buddies** (older students from other classes) supported teachers in the classroom.
- A team or **"buddy system" among teachers** was established. Teachers enjoyed working together – there was a lot of creativity.
- Being aware of the time perspective and really **taking time** for processes!

- **Rubrics/templates** were used to support lesson planning.
- Good **WLAN** made working in teams a lot easier.
- **School improvement processes** were started.
- Trying to train teachers in **teacher training courses.**

Dialogue between practitioners and policy makers

Did practitioners and policy makers exchange opinions during the workshops? How was this dialogue organised? (if not – why. Describe the difficulties in engaging policy makers if relevant)

Yes, they did. Two discussion rounds were organised (about 10 participants each) which consisted of practitioners (group 1) and policy makers (group 2) in Workshop 2 and of both practitioners and policy makers in Workshop 3.

What issues were raised in the discussion between practitioners and policy makers?

- Participants have various definitions of collaboration– need to compare and agree on one.
- Good practice examples in various schools.
- Enablers and obstacles like time, room, collaboration among teachers, etc.
- Assessment of group work with and without rubrics.

Did practitioners and policy makers reach a better understanding of the other sides' perspective? How? What indicates that?

Throughout the project, all participants had the chance to share individual (teacher, teacher trainer, head master and authorities) view of CL and exchanged ideas. They were supported by moderators who collected and clustered contributions.

Did policy makers' perspective change? How? Did policy makers demonstrate a willingness to make changes?

Their perspective did change as they listened to reports and experiences from practitioners, what they do in class and what problems they have to face. Policy maker will use the awareness out of the project to influence future strategic plans. One of the opportunities could be the current development of the strengthen of the students basic competences.

Use of group work and collaborative learning by practitioners

Did they use group work? How, what methods? How did they assess group work?

- **TeamUp** (http://teamup.aalto.fi) was used, which made it easier to assign students to various groups. Students took on different roles in groups and worked in teams (researchers, reporters, etc.).
- **Self- and peer-assessment** were used; see project of a middle school in Vienna: NMS Schopenhauerstraße:
  http://zli.phwien.ac.at/co-lab-szenario-workshops-an-der-nms-schopenhauerstrasse-79/

Did they use collaborative learning, or elements of CL (not every group work is CL)

- As teachers used in their lessons both methods dependent on the situation and context.
- An **analysis of students' strengths** was carried out in order to better assign them to the groups.
- Students were **assigned different roles**: researchers, engineers, reporters, etc.

How the participation in CO-LAB affected practitioners? What did they learn?

- Students who take on **different roles in group work** has become more valuable.
- **Learning across the curriculum** is becoming more and more important.
- The **use of assessment rubrics** (based on iTEC, CCL) is important and can facilitate assessment as it becomes more transparent.

Did they change their approach to incorporate the collaborative learning? How? Did they make changes in teaching and assessment? What changes?

- Cooperative approach was replaced by the **collaborative approach** – the result of the group work must be more than the sum of individual results!
- Working with **templates (iTEC – learning stories) and rubrics** has become more important.
- **Self and peer- assessment** are being used more.

Uptake of the 21 CLD rubric – collaboration levels (1. Work in groups or pairs, 2. Shared responsibility, 3. Making substantive decisions together, 4. Interdependence). Did they find it interesting, understandable, practical…? Did they use it? Comments?

Using the rubrics is generally good but can become **too detailed** – then the structure of the whole lesson suffers. Teachers might stick to details too much (planning based on too small steps – which is often not necessary).

Teacher cooperation. Do they cooperate more effectively with their colleagues as a result of Co-Lab?

- Yes, two or three teachers often worked together. In this way a team or even **buddy system** among teachers could be established.
- The **Schulgemeinschaft** (SGA) – which is a cooperation between students, teachers and parents was involved. This is also what the Ministry of Education in Austria wants as eEducation and SQA are means of bringing stakeholders together. Teachers and schools should become aware of that, otherwise projects do not last long and have no influence for future processes.
- Suggestion for the CoLAB Community: some kind of **evaluation or secondary research** would be good in order to become aware of and discuss "blind spots" teachers may have in regard to CL.

How else did they profit from the project – e.g. increased confidence, ideas for new projects, changes in the organization of the school, other effects?

The project helps head teachers more easily include **new colleagues** in the schools strategy regarding CL. As we had **students** at the workshops they informed other classes in their school and those students wanted to participate in similar project as using **non-digital elements** in COLAB is seen positively and as the project is seen as a teaching methodology.

2.1.4. Project organisation, cooperation with and support for project participants

Project implementation in your country

Who was involved in the project implementation in your organisation (and in cooperating organisations if relevant)? What were the roles of this staff? Did this approach to project implementation work well for you and the participants?

- BMB pushed the project in eEducation, published on its website and presented the project in other events of BMB (like the education fair Interpädagogica).

- Support by teacher training institutes like PH Wien, PH der Diözese Linz, KPH Wien/Krems etc with dissemination of information on collaborative learning, available resources and MOOCs; organising events and F2F and virtual training sessions.
- In principle it worked well, but not all teacher training institutes supported the project on a broader basis because of teachers' uncertainty due to new curriculum, less willingness to support a topic outside the core curriculum, lack of technical support at some institutions. We reached not too many teacher students as we wanted to.

Recruitment of participants to the project, to the MOOC and workshops

How was it done – e.g. open recruitment or selected schools? Why? Were there links to other projects - if yes how did it help? Any issues?

- BMB made a mailing to eEducation schools, posted it on the website as well on the websites (Blog) of PH Wien and PH der Diözese Linz.
- Support by eEducation movement www.eeducation.at, a combination of all associations of the BMB in order to bundle affects to education of all grades - combining use of technology with meaningful pedagogic scenarios and added value for school development
- BMB promoted the project on events like Interpädagogica, eLearning Conference, Eisenstadt etc.

Maintaining contact and support for participants

- Main contact was the BMB and both PH's (Vienna and Linz).
- Support by Hermann Morgenbesser and Bernhard Racz during the MOOC by a special eMail address colab@bmb.gv.at
- National blog for the project during the MOOC.

How did you help participants? E.g. contact persons in schools, mentors for schools, the activities of the national contact person(s), meetings of participants, additional meetings/workshops etc.

- A National blog was created during the MOOC.
- Teachers were supported in their schools by using the eEducation network with their regional coordinators and of course the local school coordinators.

The MOOC - content

Did participants comment on the scope, level, content of the MOOC – e.g. topics, methods covered? If yes, what were the comments? Was the content relevant to their needs and their level of competence?

The MOOC – organisational and technical

Please refer to workshop 2 – mid-term workshop – for comments by teachers and head masters as well as inspectors. Most important – MOOC was too time consuming – teachers (not experienced in CL) needed more than 40 hours within 5 weeks.

Any issues, for example timing, technical issues, language issues? Did you help participants to profit from the MOOC? How? Did it work?

The MOOC needs to be in GERMAN to engage Austrian teachers. There were also timing problems, as the test time in schools is before Christmas.

For non-native English speakers - were there language issues, did you provide help (what kind)? How did it help?

Support by Hermann Morgenbesser and Bernhard Racz by colab@bmb.gv.at .

Project design and implementation at international level

The CO-LAB MOOC is not the typical Austrian pedagogy – to succeed, the MOOC would have to be more national-specific. For some teachers English was a real problem – they had to see the videos twice or three times before they understand what is going on

Conclusions regarding project organization, recruitment and support

What worked well for you in the implementation of this project? Is there anything you would have done differently? What should be taken into account in the organization of similar projects in the future?

As BMB plans to introduce IT media starting school year 2018/19 in all grades (starting at grade 4) teachers have to be trained in pedagogy using IT media in their subject. In Austria we have approx. 110.000 teachers MOOC or NOOC is essential to get the job done!

2.1.5. Recommendations

The challenges with collaborative learning are similar to the challenges connected with other innovative didactic approaches or projects: Practitioners are generally interested and appreciate trying out new ideas or methods, but professional development and development towards fine-tuning the respective approach often reaches only up to some extent. The critical aspect with collaborative learning clearly lays in grading and evaluating students' performance. This was a clear result of country labs and of experts' contributions in the course of the MOOC. Therefore, it is recommended that all necessary steps are taken to support teachers' professionalization.

- Teachers should receive support and the necessary conditions to work together collaboratively, in teams, themselves to ensure similar learning environments for their students.
- Continuous training institutions: Principals should receive support by school development experts as well as by didactic experts to improve general conditions and offer tailored training opportunities to teachers.
- Policy makers: It must be made easier for teachers to integrate collaborative learning in standard teaching/learning scenarios. Policy makers should include aspects of innovative pedagogy in nationwide and local development and professionalization initiative.

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2.2 Belgium – Flanders

2.2.1 Introduction

In Belgium, the three communities (Flemish, French, and German) are responsible for education, with the exception of three competences that remain a federal matter:

1.   the determination of the beginning and the end of compulsory education (6 – 18 years);
2.   the minimum requirements for the issuing of diplomas;
3.   the regulation of retirement for employees in the educational system.

Instruction in each community is provided in the language of the community in question: Dutch, French, and German.

In Flanders, the Ministry of Education and Training (MoE) is responsible for all stages of education and training starting from pre-primary education. Childcare is a competence of the Flemish Ministry of Wellbeing, Public Health and Family. Education in Belgium is compulsory from 6 until 18. Compulsory education however does not equal the duty to attend school. Parents may choose home schooling for their children.

https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Belgium-Flemish-Community:Overview

GO! or Gemeenschapsonderwijs is not part of the Ministry of Education. It works independently and has been established by parliamentary decree in 1998. It is the network of official, non-religious, "neutral" schools in Flanders and Brussels.

Working in groups and collaborative learning in schools in national legislation

Schools and teachers have a large amount of autonomy, but in practice seldom use it in full. Within the hours, they have for their subjects, teachers can use active approaches such as CL. They can use whatever methodology they prefer to teach their subjects, be it group work, project work, CL etc. Big subjects with more hours generally lend themselves better for CL. CL can be assessed by individual teachers, though it is not required. Teachers have full autonomy in deciding how to assess the learning of their students.

Teachers are paid by the Ministry of Education. They do not receive a bonus or extra remuneration for teaching innovatively. Flemish teachers do not have many opportunities for promotion. They can become vice head master, school principal/head master, pedagogical advisor (if trained) or director of a school group (a cluster of schools in the same region).

Overall, Flemish teachers, in general, still tend to teach in traditional ways, as international studies such as OECD show. They feature among the lowest achievers in Europe regarding taking care of their own professionalization, despite a professionalization budget being available in the school district.

How has it changed within recent 2-3 years? Do these changes support CL?

Currently, secondary education is under review for reform (the so-called "modernisation of secondary education") as Flemish education, though performing excellent in international studies like Pisa and OCD, is showing flaws and social inequalities: https://onderwijs.vlaanderen.be/nl/modernisering-secundair.

"Eindtermen" are the attainment targets every pupil or student has to reach by the end of primary and/ secondary education. They are currently being revised after public consultation: The final report can be read here:

https://onderwijs.vlaanderen.be/nl/eindtermendebat-eindrapport-van-lerensbelang

Public debate on attainment targets in Flanders, favours the use of CL. The Ministry of Education is in the process of rewriting attainment targets as part of its reform review.

Ministry of Education site

Social competences for primary and for secondary education in the core curricula:
http://eindtermen.vlaanderen.be/basisonderwijs/lager-onderwijs/leergebiedoverschrijdend/sociale-vaardigheden/eindtermen.htm

http://eindtermen.vlaanderen.be/secundair-onderwijs/vakoverschrijdend/index.htm

2.2.2 Realisation of the workshops

Workshop 1

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

Workshop 1 was organised on June 15th 2016 in Brussels, in collaboration with liaison office vleva.eu,

https://www.vleva.eu/event/co-lab-conferentie-samenwerkend-leren-en-lesgeven

There were 34 participants (out of 53 registered). Most of them were teachers or people from in-service training, 1 pedagogical advisor (who was also the workshop trainer) and unfortunately no policy makers.

Objectives of the workshop

The focus of the workshop was on promoting the project and announcing the CO-LAB MOOC later in the year.

Description of sessions (what happened during the workshop)

- 09.15: welcome with coffee and tea
- 09.45: Introduction by Mark Willems, responsible for GO! 3.0
- 09.55: Presentation of the CO-Lab project (in English) and Co-Lab MOOC by Patricia Wastiau, Project coördinator at European Schoolnet
- 10.25: Flemish keynote talk (in Dutch) by Prof. dr. Wouter Schelfhout, Universitity of Antwerpen "Learning communities in education: the bridge between meaningful professionalisation and shared educational leadership."
- 10.55: "Collaborative Learning" by Nadja Gilissen, Pedagogical Adviser, GO!
- 11.15: Coffee
- 11.30: "Collaborative Learning" by Nadja Gilissen with CL activities (part 2) – interactive statements about collaborative learning using zeetings.com
- 12.55: Final views by Jens Vermeersch, internationalisation officer GO!
- 13.00: Lunch

Raised issues. Brief conclusions from the workshop

The objective of the workshop was promotional, to encourage participation in the project. After a follow-up article in our digital newsletter "GO! Pro!" http://pro.g-o.be/nieuws/2435 more than 350 people initially signed up to take part in the MOOC, but unfortunately this did not result is a massive participation.

Workshop 2

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other). Objectives for the workshop.

Workshop 2 was originally planned for March 15th 2017 at EUN premises, with the main objective of evaluation the MOOC and recommendations for future online courses. Everyone who had registered as having an interest in CO-LAB and the CO-LAB MOOC was sent an invitation. In the event, the workshop had to be cancelled as only three participants registered. Following investigation into the reasons for the low sign-up, it transpired, that despite the initial interest, few teachers had completed the CO-LAB MOOC (reference D5.1 Final Evaluation report, for further analysis of the MOOC and the follow-up survey results).

In view of this experience, the purpose and objective of workshop 2 was reconsidered, and it was decided to focus again on information and dissemination about CL and the COLAB project. The announcement appeared in GO! digital newsletter http://pro.g-o.be/nieuws/2853 and Workshop 2 was re-scheduled and held on 3rd May 2017 at GO! Offices, in Antwerp. 25 teachers registered for the event, with 20 teachers attending on the day.

Description of sessions (what happened during the workshop)

- 13—14h: Welcome and lunch
- 14-14:15h: Introducing the CO-LAB project, by Viola Pinzi. CO-LAB project manager, EUN
- 14:15-14:30h: Sharing experience from the CO-LAB MOOC
- 14.30-16:30h: Key Note and Workshop "Collaborative Learning with Web 3.0 (Live) - A Hands On Approach to Educational & Learning Styles Using Web Based Tools." (Google Classroom and Related) led by Ivo Legon, ICT Coordinator & Teacher PC Technician, Spectrum School Deurne
- 16:30: Networking

Workshop 3

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

As it proved difficult to reach stakeholders and policy makers, GO! decided to organise an extra Workshop, targeted at policy makers in collaboration with another KA3 project in which GO! is partner, called, Tmail, on teaching self-regulated learning to teachers.

31 people registered and 27 turned up. This included: the project officer of EACEA, who was very pleased with the results of both projects; the Head of the Training department of VDAB; the public employment service of Flanders providing trainings to young and unemployed people to get them to a job; several school directors & EU project managers from several of GO! School districts; the initial teacher training Department of Erasmus High School (Jette, Brussels); a Researcher from Ghent University; 2 Adult Education Teachers of the Provincial Education Network; 2 ICT coaches from GO!.

This policy focused workshop was held on September 5th 2017, in collaboration with the VUB university Brussels (Vrije Universiteit Brussel).

Objectives, agenda and key discussion areas with policymakers at the workshop

A first preview of the results of both projects and a debate with educational decision makers active at different policy levels on:

- How was 'collaborative learning' (CO-LAB) and 'self-regulated learning' (tMAIL) adopted in Belgium?
- What are our experiences concerning teacher professionalization through MOOC (CO-LAB) and a mobile application (tMAIL)? What impact did both modes of professionalization realize?
- What are potential implications for educational policy in Belgium?
- How can both projects innovate educational policy?

Summary of the main discussion areas and suggestions from participants

- Discussion around the MOOC and online training experience with teachers – considering how to overcome the issues of low participation
  - It is important to expand the communication/dissemination channels about online training opportunities for educators.
  - In the pre-training phase, it is important to understand participants expectations and how they intend to use the course (and compare with final results).
  - It is fundamental to prompt and support initial engagements in the trainings.
- Discussion on: intrinsic/extrinsic motivation, tangible/intangible rewards. Suggestions:
  - Validation of results (official, open badges, block chain technologies and online reputation)
  - Competitions within the courses, for example, on final products, such the lessons plans in the MOOC, with prizes (tangible/extrinsic) and/or used for showcasing and content co-creation (intangible/intrinsic) etc.
- Discussion around which are key analytics to support policy making (platforms, which data, how to share)
  - It is useful and needed to have data from research and learning analytics (for policy making but also for training providers)
  - Data driven approach and policy monitoring platform (t-mail)
- It is important to understand the differences/relations between content providing, devices and systems and learning design. Furthermore, many institutions/training providers have their own platforms to offer online training and some level of integration is needed.
  - on mobile and pc based learning, MOOCs and micro-learning as design not necessarily dependent on platforms, independence of content (OER for example), open sourcing platforms (app or other LMS) and/or open sourcing the content, option for third parties to create/add their own content.
- Any new approach (for example, within this meeting topics, Collaborative Learning and Self-regulated learning) should be built into programmes.
- The assessment component is also a key feature, both the teachers' learning process (teachers LO) and for them to be able to implement assessment with their learners (students LO).
- It is also relevant to understand and foster both ways the relations between online community and offline community and/or face to face activities.

o   Discussion on how this relation should be fostered? Prompting face to face activities from the online communities or using the online training as support in face to face activities? Example of a MOOC used as training material

2.2.3. Results of the workshops and of the project

Understanding of collaborative learning, dialogue between practitioners and policy makers

Reflecting the different implementation experience of CO-LAB in Belgium-Flanders, the resulting workshops for teachers focused on dissemination and information, with practical workshop sessions and discussion on CL during the workshops themselves.

As it provided difficult to engage policy makers and no policy makers attended the teacher workshops, the final workshop was arranged for policy-makers themselves, in conjunction with the tMail project (reference above). We believe this policy makers event was successful, both in terms of questions being raised and suggestions given to improve online learning for teachers through a mooc , an app, or, in the near future micro learning on mobile phones, as one policy maker suggested (VDAB).

Use of group work and collaborative learning by practitioners

Given the experience of the low take-up of the MOOC, and the resulting re-thinking of the workshop, there is insufficient evidence to comment here. Due to data protection and privacy issues, the email addresses of the small group of Belgian teachers who did complete the CO-LAB MOOC could not be shared. This presented a significant hurdle in terms of being able to follow-up directly with these individual teachers on their experience of CL in their classrooms.

Indirectly, one of the Belgian teachers involved in the CO-LAB MOOC, published an article in the magazine of the Ministry of Education "KLASSE", which was very positive about the usefulness of CO-LAB and the MOOC for her as a new practitioner starting with CL in her class: "Dare to be innovative as a starting practitioner" https://www.klasse.be/75146/durf-innoveren-als-startende-leraar/

The Ministry of Education stimulates Co-teaching through these six examples in the same online magazine https://www.klasse.be/?fwp_zoek=Co%20teaching .

2.2.4. Project organisation, cooperation with and support for project participants

Project implementation in your country

Who was involved in the project implementation in your organisation (and in cooperating organisations if relevant)? What were the roles of this staff? Did this approach to project implementation work well for you and the participants?

We involved our network of internationalisation contacts at our regional school groups, our in-service training department but alas there was very limited interest.

Recruitment of participants to the project, to the MOOC and workshops

How was it done – e.g. open recruitment or selected schools? Why? Were there links to other projects - if yes how did it help? Any issues?

We did a broad information campaign through our network, via newsletters and even to associations of directors and this resulted in 350 e-mails of people interested.

Maintaining contact and support for participants

We only had two effective workshops for teacher practitioners and afterwards it proved impossible to maintain contact.

How did you help participants? E.g. contact persons in schools, mentors for schools, the activities of the national contact person(s), meetings of participants, additional meetings/workshops etc.

Twitter and Facebook were used to make publicity.

Any issues, for example timing, technical issues, language issues? Did you help participants to profit from the MOOC? How? Did it work? For non-native English speakers - were there language issues, did you provide help (what kind)? How did it help?

We do not know who exactly participated in the MOOC due to data protection reasons. Most people we talked to said they were put off by the long, academic questionnaire in English, the registration process and the short period (1 week) to conclude each module. A longer period to complete the MOOC would have been better or another time of the year (February-March). October-November tend to be the busiest months.

Project design and implementation at international level

The project left little room for active input from partners, which was an unusual and new role for GO! It seemed all materials had already been developed and ready. Our role as partner was to try to implement them in our country/region.

Conclusions regarding project organization, recruitment and support

What worked well for you in the implementation of this project? Is there anything you would have done differently? What should be taken into account in the organization of similar projects in the future?

Being able to organize three workshops and a policy maker event was useful to promote the project and the ideas behind it within Flanders. The difficulty of involving policy makers if, as was the case for GO!, not being the MoE and having therefore less influence and power to change policies. The MOOC should perhaps have been locally embedded in Dutch but overall it seems most Flemish teachers were not ready or lack the time/engagement for taking a MOOC.

2.2.5. Recommendations

Schools

- **Teacher level**. Teachers in Flanders should be more willing (in terms of mind-set) to take up innovative professionalisation initiatives such as COLAB.
- **School – headteacher level**. Head teachers in Flanders should (more) take up pedagogical leadership (not just managerial & HR) and stimulate teachers more to work on their professionalization. They could also stimulate more peer learning among their teachers & turn their teams into learning communities. The Keynote speaker from the first workshop (Prof Wouter Schelfhaut of University of Antwerp) held a warm plea for such communities.
- **Continuous training institutions**. They should stimulate teachers through their in-service trainings to use active teaching methodologies like CL more.
- **Policy makers**. Policy makers such as the Ministry of Education should allow schools and teachers more time and freedom to experiment with active teaching methods like CL. The Flemish Ministry of Education could take more interest in the results of projects such as Colab & Tmail. A project officer from EACEA attended the final policy maker event on September

5th, but the responsible officer from the Ministry of Education was not able to attend this successful policy makers event.

- **Partners.** Partners in future projects should more or less all have the same weight and impact. It was easier for the partners in COLAB that were Ministry of Educations, while for Flanders the Ministry of Education did not participate. A joint effort of GO! and the Ministry of Education probably would have made the project more successful in Belgium. However, it takes two to tango.

2.3. Estonia

2.3.1 Introduction

Most teachers in Estonia are familiar with the terminology and definitions of learning scenarios, collaborative learning and assessment. About learning scenario – some teachers get to know more about the content and formatting it. Rubric was new for some teachers and they got new information about it and how to use it.

Working in groups and collaborative learning in schools in national legislation

At country level, the national curriculum highlights the importance of integrated and inter-disciplinary studies, implementation of innovative learning and assessment methods, as well as developing pupils' skills regarding cooperation and communication. Learning activity and the results thereof shall be shaped into a whole through integration. Integration supports the development of pupils' general and subject field competences.

Social competence is defined in the national curriculum as one of the general competencies – as the ability to become self-actualized, to function as an aware and conscientious citizen and to support the democratic development of society; to know and follow values and standards in society and the rules of various environments; to engage in cooperation with other people; to accept interpersonal differences and take them into account in interacting with people. However, these are general principles, which do not necessarily translate into the syllabuses at school level.

Each school can create their own individual syllabus, which is based on the national curriculum, but highlights the specifics of this particular school (e.g., some schools are more directed to teach music, or other schools are more directed to teach languages).

If the national curriculum states how many lessons per week students can have in each class, then the student's weekly study load for a subject is determined by the school syllabus. For example in 8-9 grade students can have maximum of 32 lessons per week, school can choose how many lessons they give mathematics or languages or other subjects.

Regulations of in-school assessment – can CL be assessed, is it required?

According to the national curriculum, learning outcomes that express values are not assessed numerically; rather, feedback is given to the pupil regarding achievement. The national curriculum also states that pupils shall be involved in the assessment process of themselves and their companions in order to develop their skills in setting their objectives and to analyse their learning and behaviour based on their objectives, as well as to increase their motivation for learning.

The national curriculum states: "The pupil is an active participant in the learning process who takes part according to his or her abilities in setting goals for his or her studies, studies independently and with companions, learns to value his or her companions and him or herself and to analyse and manage his or her studies."

The Estonian school system allows teachers plenty of freedom in arranging their teaching in the classroom; hence, there are no visible restrictions in implementing innovative methods apart from the possible lack of knowledge, skills and available time of teachers themselves. Actual success of this rests largely on the incentives and support provided at school level and this varies greatly depending on

each particular school and the willingness and positive attitude of headmasters in motivating and guiding their teaching staff.

How has it changed within recent 2-3 years? Do these changes support CL?

The national curriculum was last changed in 2014, but changes in school-level will not occur overnight. This takes time and the progress is by no means uniform and omnipresent depending largely on the policies of each particular school and on the capabilities and mind-set of individual teachers. Still, it is good to see that more and more collaborative learning is used in schools and good practices are being shared by teachers.

2.3.2. Realisation of the workshops

Workshop 1

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

Workshop1 was held on 19.08.2016 in Kopra Talu, Tuhalaane. There were 8 participants, 6 of them were school principals and 2 were CPD providers (continuous development). 5 of the 8 participants also work as teachers.

Objectives of the workshop

- To introduce the CO-LAB project and its objectives. To share the plans and ideas for the new school year

Agenda of the workshop:

- 09:30 – 11:30 Digipeegel – a tool for educational technologists. Mart Laanpere, Tallinna Ülikool
- 11:30 – 12:00 break
- 12:00 – 14:30 Work plans for the new schoolyear. Kristi Semidor, HITSA. What is done and what is coming in HITSA. Digitally active school. Collaborative learning. Inga Kõue, Jüri Lõssenko, HITSA

Description of sessions (what happened during the workshop)

The participants were knowledgeable about the concept of collaborative learning. However, not many had actual and in-depth experience in implementing collaborative methods in the classroom.

Raised issues. Brief conclusions from the workshop

It became evident from the discussions that the main obstacle is time. In order to adhere to what has been outlined in the curricula and syllabuses, it makes it very difficult for teachers to effectively and thoroughly utilise new and innovative approaches to teaching. As the average age of a teacher in Estonia is 48 years, many of them use smart devices and technological gadgets rarely, they are more used to traditional methods. Implementing new innovative methods and new technologies takes more time (at least in the beginning) and teachers are afraid because of that. For example, they may not know how to use Google Drive or other good platforms for group works.

Workshop 2

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

Workshop 2 was held 30.03.2017 in HITSA Future Classroom Lab. There were 17 participants: 1 headmaster, 1 head teacher, 1 teacher training specialist and 14 teachers.

Objectives of the workshop

- To introduce the CO-LAB project and its objectives. To support teachers in implementing innovative learning methods in the classroom.

Agenda of the workshop

- 10.30 – 10.40 Welcome and introduction. Elise-Marit Kippar, HITSA
- 10.40 – 12.00 CO-LAB overview. Viola Pinzi, European Schoolnet
  - CO-LAB project - objectives, outcomes, current results
  - Introduction to collaborative learning (within CO-LAB approach)
  - CL scenarios
  - Assessment of CL and guidelines
- 12.00–17.00 Workshop: Collaborative learning scenarios in the classroom. Meeri Sild, Tallinna Lilleküla Gümnaasium
  - Changes in education, changing learner, changing learning styles, learners' digital competences.
  - What is learning scenario? Examples.
  - Tools for creating learning scenarios.
  - Designing own learning scenario
  - Sharing ideas

Description of sessions (what happened during the workshop)

Participants pointed out that peers collaboration helps to maintain and increase motivation. Furthermore, in school environment it is important that teachers, parents and school administration understand the importance of collaboration and set a good example for students.

There was also a discussion about new learning conception and that students want fast feedback and that they need praise.

Descriptions of (the most interesting) good practices in CL, if they were shared during the workshops

Some teachers like to implement technology in their classes while using TeamUp, Padlet or GoogleDrive for group works or project based learning. It was also pointed out that working in a team helps students to develop an understanding that every person in the group has an important role and in order to get to the outcome everyone needs to do their part. Sometimes the learning process is even more important than learning outcome, because it teaches about collaboration. The workshop conductor (Meeri Sild) had been involved with iTEC project.

Raised issues

Teachers tend to use traditional methods. As time is limited, it is easier for teachers to give a lecture, rather than instruct collaborative learning.

Workshop 3

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

Workshop 3 was held 15.06.2017 in HITSA Future Classroom Lab. There were 17 participants: 1 head teacher, 1 teacher training specialist, 2 educational technologists and 13 teachers.

Objectives of the workshop

- To share good practices and ideas. To support teachers in implementing innovative learning methods in the classroom.

Agenda of the workshop

- 12:15 – 12:25 Welcome and introduction. Elise-Marit Kippar, HITSA
- 12:25 – 16:30 Workshop: Collaborative learning scenarios in the classroom II. Meeri Sild, Tallinna Lilleküla Gümnaasium
  - Change in the approach to learning
  - How to implement collaborative learning
  - Why to use learning scenario?
  - How to design a good learning scenario. Sharing ideas and experiences.
  - How to assess students? Potential difficulties and how to overcome them.

Description of sessions (what happened during the workshop)

This workshop was more focused on the assessment methods (because previous workshops showed that this is the weaker part for teachers). Teachers discussed about different options how to assess group-work. For example, which kind of criteria to use – these could be different, like activity, performance of tasks, communication, etc., and what kind of scale to use. Trainer shared some useful web environments (Rubistar, Teachnology) and together they looked and discussed about these.

Descriptions of (the most interesting) good practices in CL, if they were shared during the workshops

Tip to use when planning a group-work – teachers should think wisely which students they put to work together, because this affects several things (group dynamics, individual effort, etc.).

Raised issues. Brief conclusions from the workshop

Sometimes it is difficult to conduct collaborative learning, because students are different. Teacher has to know the students well, it helps. In general, teachers really liked to share their ideas and experiences. In addition, they liked to get the information about new learning environments.

2.3.3. Results of the workshops and of the project

Understanding of collaborative learning

How did participants understand CL?

Participants understood that collaborative learning is related with communication and group-work or teamwork. In addition, they understood that it is related with change in the approach to learning – it means that the world nowadays is different and that is why also school environment has to support focusing on the learner, involvement and collaboration of different parties. As the learning environment is more versatile and offers more, teachers also have to be more flexible, know the students and how to use suitable teaching methods considering their peculiarities.

What changes were there to the understanding of, opinions about, and attitudes towards CL across the 3 workshops (before, during and after)?

Each workshop showed that participants were knowledgeable about the concept of collaborative learning. Although teachers' discussions showed that they understood the importance of collaborative learning, it turned out in the first workshop that teachers do not use collaborative learning in the classroom often. There were several reasons why this is complicated and in next workshops these same problems were mentioned – lessons are too short, too little practical examples of implementation, difficult to assess, etc.

Participants in the second workshop were a little bit more positively minded about using the collaborative learning in classroom. They thought that implementing technology in the classes is a good way for group works or project-based learning. In addition, it was pointed out that sometimes the learning process is even more important than learning outcome, because it teaches about collaboration, which is an important skill in 21st century. However, one topic that was more complicated for teachers was how to assess collaborative learning and group work. It was discussed that formative assessment is important, because grades do not give real feedback to students – they need more to improve. In addition, it was thought that assessment needs to include both – what was good and what needs to change. Still, how to assess group work, where it is not very clear, how much each student has contributed?

The third workshop was more focused on the assessment of collaborative learning. It was discussed that it is easier to assess the result, but more complicated to assess the process. Participants shared their experiences – how they make the groups for group work and how to provide that each student feels comfortable in collaborative learning process. In addition, participants were introduced with a rubric – they learned how to determine the criteria, what to assess in a group work and found it to be a good and helpful tool.

To sum up, it can be said that participants really liked to hear others experiences and to share the ideas about collaborative learning.

What differences (if any) were there in the opinions and attitudes towards CL between teachers, teacher trainers, head teachers and authorities?

In general, all parties understand that collaborative learning is important. Teachers like to cooperate with colleagues to share and get good ideas for their lessons. As teachers' role is responsible and has great impact, it is very important that teachers, teacher trainers, head teachers and authorities also collaborate with each other to continue giving good education to pupils and to solve challenging issues as well as possible, and this cooperation is implemented solidly. For example, in order to make decisions, every school has a board of trustees (there are representative of authorities, representative of teachers, and few representative of parents), pupil representative board and teachers' council.

Enablers and obstacles for the use of CL

OBSTACLES

- little time (it is easier to use traditional methods);
- few good examples (difficult to start when you do not have good examples);
- few experiences.

ENABLERS

- fun and interesting learning for students;
- collaboration with colleagues, parents and school administration;

- support of school leadership (as well as teachers, headmasters are given quite significant independence in school management);
- a good planning and making a learning scenario.

How participants ensure enablers and <u>overcome obstacles</u>? Good practice in solving problems and making CL possible.

Participants discussed that it is often difficult to start with something which is new or where they have little experience. However, it is easier, when colleagues are supportive. Encouragement and supportive ideas (e.g. in the workshop) help to start and honest constructive feedback (firstly from the students) helps to improve and keep on**.**

Dialogue between practitioners and policy makers

Did <u>practitioners and policy makers</u> exchange opinions during the workshops? How was this dialogue organised? (if not – why. Describe the difficulties in engaging policy makers if relevant)

Participants (who were mostly practitioners) exchanged opinions and ideas. There were probably several reasons, why policy makers were reluctant to participate – e.g. usually most workshops and trainings that HITSA organizes are for practitioners; policy makers prefer more different topics; this kind of practical topic was more attractive to practitioners.

What issues were raised in the discussion between practitioners and policy makers?

It was mentioned that one positive and supportive aspect is good collaboration between school management and teachers. It can be viewed in the opposite way also – if there is no good relationship between school management and teachers, it could affect teachers' work in different ways. In addition, this kind of collaboration gives an example to the students, because they do not only learn during their classes but they learn from everything that surrounds them.

Did <u>practitioners and policy makers</u> reach a better understanding of the other sides' perspective? How? What indicates that?

Teachers in general like to co-operate to each other, because it is a good way to learn from each other and get interesting ideas (learning is a lifelong process). In addition, policy makers understand, that it is important to co-operate with practitioners, because in the field of education, decisions cannot be made by one or few persons. Everything is very complex and unique, therefore the same situation may require a totally different approach next time and that is why we need that specialists with different background co-operate and it is well known that practitioners who work "in a field" every day, does not have exactly the same view as the policy makers.

Did policy makers' perspective change? How? Did policy makers demonstrate a willingness to make changes?

In general policy makers' perspective did not change, but they recalled this important knowledge about collaboration and its' importance.

Use of group work and collaborative learning by practitioners

Did they use group work? How, what methods? How did they assess group work?

Yes, teachers use group work. Sometimes they let students to choose groups, but then usually similar students are in the same group. Another way is to use some random group generator. However, more effective way, when teacher knows the students well, then teacher should divide them into groups based on previous experiences and knowledge about personalities. In groups, it is important that students can divide tasks by themselves and students should ensure that every group member is

actively involved, but they should always ask advice from teacher if needed, because teacher is their mentor and should be there to keep an eye on.

Teachers use group work, for example, to give students practical task to search for information, collect the most important parts from it and to formulate a new learning material or presentation from it. In that way, students together make an effort for the result but they also learn during this process. For teachers, assessing the result is usually easier but they also need to assess the process, because students together in one group make the result, but their contribution (process to the result) is different. That is why teachers have to do a decent preparation, e.g. prepare a suitable rubric to assess group work well.

Did they use collaborative learning, or elements of CL (not every group work is CL)

Yes, they use collaborative learning or elements of collaborative learning occasionally. For example, they use group works where students have to divide tasks and ensure that every group member is actively involved, they have shared responsibility. It was pointed out by some teachers that it is sometimes better to formulate the groups with unpaired number of students, because where there are paired number of students in a group, then there is a chance that opposites arise in this group when it becomes to decision making.

How the participation in CO-LAB affected practitioners? What did they learn?

Practitioners learned about collaboration and how to use collaborative learning in classroom. They had some knowledge before, but they received confirmation about their previous knowledge and gain new useful and important knowledge. In addition, they were pleased about sharing their experiences with other practitioners.

Did they change their approach to incorporate the collaborative learning? How? Did they make changes in teaching and assessment? What changes?

The main change was that participants realized better how important collaborative learning really is. Even though they had some knowledge before, now they got confirmation and courage to practice collaborative learning in their classes more often. In addition, they got a chance to share their experiences and learn some tips from each other, they also got answers for their questions – e.g. about assessment; and were positively minded after the workshops. They mentioned that the rubric is a useful tool and now they know better how to use it purposefully.

Uptake of the 21 CLD rubric – collaboration levels (1. Work in groups or pairs, 2. Shared responsibility, 3. Making substantive decisions together, 4.Interdependence). Did they find it interesting, understandable, practical…? Did they use it? Comments?

Participants passed these topics through the workshops and discussed about these together. They found all these topics interesting and practical.

Teacher cooperation. Do they cooperate more effectively with their colleagues as a result of Co-Lab?

Workshops included group-works (in addition to lecture and discussion) and it showed that teachers really liked to work together and to share their experiences, ideas and tips. They also mentioned during discussions that it is important in school environment that teachers cooperate (e.g. they can integrate their lessons together or use new innovative tools) and that school management should be supportive and encouraging. Additionally, some teachers pointed out that eTwinning program is similar, because it is also related with cooperation and collaboration (eTwinning is currently quite popular in Estonia).

How else did they profit from the project – e.g. increased confidence, ideas for new projects, changes in the organization of the school, other effects?

It could be said that two most important benefits that participants gained from the project were the knowledge about how to develop a learning scenario and how to prepare a rubric. Of course, they also got increased confidence and new ideas from each other. However, most feedback during and at the end of the workshops were about the concept of learning scenario – how it helps teachers to prepare better lessons and about rubric – how it helps to assess students.

2.3.4. Project organisation, cooperation with and support for project participants

Project implementation in your country

Who was involved in the project implementation in your organisation (and in cooperating organisations if relevant)? What were the roles of this staff? Did this approach to project implementation work well for you and the participants?

First workshop was introductory and it was conducted by the experts of our organisation. The second and third workshop were conducted by Meeri Sild, who works as a schoolteacher and teacher trainer. She is experienced in these topics and participants really liked her.

Recruitment of participants to the project, to the MOOC and workshops

How was it done – e.g. open recruitment or selected schools? Why? Were there links to other projects - if yes how did it help? Any issues?

There was open recruitment, to give an opportunity to everyone. The first workshop was linked to other event, because it was more introductory. Second and third workshop were independent events, because they were more specific, needed more time, and focusing.

Maintaining contact and support for participants

How did you help participants? E.g. contact persons in schools, mentors for schools, the activities of the national contact person(s), meetings of participants, additional meetings/workshops etc.

What issues did the participants have? What forms of contact / support worked well?

Participants got the materials of the workshop right after the workshop (as the group work they made was online, all was gathered to a Google Drive and is accessible to all who have the link). In addition, they got leaflets, which introduce the project. Therefore, now they have all useful materials and contacts just in case they have any questions

Use of virtual platforms (national Facebook group, Yammer, other...)

Were they used, were participants active (if not, why), were virtual tools helpful, any issues…?

They used Google Drive – teacher trainer prepared it before the workshop – there were PowerPoints, group works, etc., all gathered together.

The MOOC - content

Did participants comment on the scope, level, content of the MOOC – e.g. topics, methods covered? If yes, what were the comments? Was the content relevant to their needs and their level of competence?

The MOOC – organisational and technical

Any issues, for example timing, technical issues, language issues? Did you help participants to profit from the MOOC? How? Did it work? For non-native English speakers - were there language issues, did you provide help (what kind)? How did it help?

There was no further feedback from MOOC participants in the workshops, but some of the new workshop participants who have not seen the MOOC yet were interested about it.

Our teachers are often afraid of English language, even when they actually understand it in quite decent level.

Project design and implementation at international level

Do you have any remarks?

Conclusions regarding project organization, recruitment and support.

What worked well for you in the implementation of this project? Is there anything you would have done differently? What should be taken into account in the organization of similar projects in the future?

No further comments to add.

2.3.5. Recommendations

The CO-LAB project has been interesting for participants, they understood at the beginning that collaboration is important, but in this project, they gained more knowledge about why it is important and how to implement it in educational field and school level.

2.4. Ireland

2.4.1 Introduction

The National Council of Curriculum and Assessment (NCCA) is the national statutory body responsible for curriculum and assessment across all education sectors in Ireland. As outlined in the Education Act of 1998, the brief of the NCCA is to advise the Minister of Education and Skills on matters relating "to the curriculum for early childhood education, primary and post primary schools and the assessment procedures employed in schools and examinations on subjects which are part of the curriculum'.

The strategic plan for the NCCA sets out six strategic goals, one of which is centred on engagement and networks for innovation. This goal focuses on us working with schools, teachers, practitioners and learners to build capacity for change and inform curriculum and assessment development and implementation. Another goal focuses on generating, using and sharing knowledge and research to support the development of curriculum and assessment advice and practice in schools. Being a part of the Co-Lab project enables us to do this for our own schools and for education settings in jurisdictions further afield.

Regarding the recruitment of schools, the NCCA had just completed their participation in a European project called EUFolio. The focus of this project was to explore how the use of eportfolios could support the delivery of curriculum content in innovative and alternative ways, with an emphasis on pedagogical approaches to foster formative assessment practices and the development of key skills in our students. We had a number of schools that were involved in this project who were keen to engage with some further work in this area. We put out a call for other schools to join with these EUFolio schools and be part of the Co-Lab project.

We currently (June 2017) have a total of seventeen schools involved in the Co-Lab project, thirteen of which are post-primary schools and four are from the primary sector. Some of these schools have been involved from the very start, and some have come on board as the project has progressed and the results have been disseminated and published. There were no primary schools at the start of the project, but we felt it important to include some primary schools to ensure as wide a cohort as possible could share their practice, expertise and research. We also have a group of Initial Teacher Education (ITE) students as part of the project. They are third year Science Education students and these 27 students come from the National University of Maynooth (NUIM).

We adopted a mentor approach to the project, where each of the schools involved was appointed an NCCA Education Officer to act as their mentor. This involves the mentor engaging in visits to the schools to observe classroom implementation and offer support to schools on a theoretical, pedagogical or technical level. This has proved to be a very successful approach, and teachers and principals expressed that they like having a regular and consistent point of contact should they need any support. This building of relationships is something that has contributed to the success of the project in many schools.

Working in groups and collaborative learning in schools in national legislation

Increasingly, attention in the education system in Ireland has focused not only on overall educational performance, but also on the extent to which school systems are serving the needs of diverse learners. Recent reforms in Irish education acknowledge the significant changes in society that require learners to have a wide, adaptive knowledge base and understanding, to enable them to be active participants in their communities and in the workplace. These reforms have resulted in students being provided

with quality learning opportunities that strike a balance between learning knowledge and developing a wide range of skills and thinking abilities. Students are encouraged to take on new participatory and collaborative roles in learning, and these roles and practices are incorporated in all stages of education.

These changes are embedded into policy, curriculum specifications and to assessment arrangements, and are designed to build on current good practice in the system and to support the further development of effective teaching, learning and assessment practices.

Primary Level

Collaborative learning is a principle of the Irish Primary Curriculum as stated in the Primary School Curriculum Introduction document:

On page 25 of this document, collaborative learning is described as the following:

> *'While it is important that children experience a variety of classroom organisational frameworks, working collaboratively provides learning opportunities that have particular advantages. Children are stimulated by hearing the ideas and opinions of others, and by having the opportunity to react to them. Collaborative work exposes children to the individual perceptions that others may have of a problem or a situation. Moreover, the experience of collaborative learning facilitates the child's social and personal development, and the practice of working with others brings children to an early appreciation of the benefits to be gained from co-operative effort.'*

When considering teacher planning, the guidelines highlight the need for collaboration with the wider school community:

> *'Detailed advice on curriculum, organisational and classroom planning is offered for each subject area in the teacher guidelines. A collaborative approach is advocated, and schools are encouraged to involve parents, the board of management and the wider school community in the planning process, where it is appropriate.'*

> *''A recent feature of curriculum development at primary, has been the development of Teacher Toolkits which provide guidance as to appropriate approaches and pedagogies for teaching and learning. Support Materials aim to present the 'how to' of effective teaching and often have a strong alignment with the aims of CL.'*

Lower Second Level

The Framework for Junior Cycle (DES, 2015) outlines the focus of education at lower second level in Ireland. Students will have opportunities and be encouraged to:

- apply their learning in a number of different contexts
- engage in research, investigation and experimentation
- gather and synthesise information
- think analytically and solve problems
- be creative, entrepreneurial and innovative
- work independently and/or as part of a team
- make decisions, implement ideas and take action
- communicate and critically respond to text and dialogue
- present and perform in a variety of modes
- collaborate with others in the completion of tasks

- think critically and reflect on their learning
- engage in dialogue with their teachers and peers
- evaluate their own learning, either as individuals or in collaboration with their peers.

These changes support collaborative learning in a number of ways both through learning and through assessment. For example, the curriculum at lower second level identifies eight key skills that are embedded in the subject specification learning outcomes.

The eight Key Skills for lower second level education in Ireland are:

- Managing Myself
- Staying Well
- Communicating
- Being Creative
- Working with Others
- Managing Information and Thinking
- Being literate
- Being Numerate.

Upper second level

The European Framework for Key Competences (European Council, 2006) presents eight key competences for lifelong learning that all citizens should have for a successful life in a knowledge society. Both of the terms 'skills' and 'competences' are used internationally, however the term 'key skills' gained approval in Ireland during a consultation process on developments at upper second level carried out in Ireland (NCCA, 2003). Five key skills were identified that were considered essential for all students at upper second level to develop at this stage of their education:

- Information processing
- Being personally effective
- Communicating
- Critical and Creative Thinking
- Working with others.

These skills were considered essential to help learners develop the ability to think critically and creatively, to innovate and adapt to change, to work independently and with others, and to reflect on their learning. In addition, the skills support mastery of the basic skills of literacy and numeracy, which are crucial for learners to access the curriculum and for their future life chances and opportunities.

Rather than have a stand-alone key skills module or course, and consistent with lower second level, the key skills are embedded in the learning outcomes of subjects. As subjects are reviewed, these skills are assessed as part of the Leaving Certificate examination. The key skills support a learning environment that can incorporate collaborative learning.

How has it changed within recent 2-3 years? Do these changes support CL?

The assessment of collaborative skills is challenging. In 2014, to address these challenges the NCCA engaged in a project called The Collaborative Assessment Alliance project. The aim of the project is to develop methods to assess critical thinking, problem solving, creativity, communication and collaboration, and provide resources for implementation in the classroom. Students are assessed on

their ability to collaborate on social and cognitive domains through the medium of online synchronous collaborative tasks. Ireland is one of the partners in the alliance; teachers from 13 schools are developing digital synchronous collaborative tasks that challenge students to solve problems through collaborating with their partner. The initiative has resulted in the development of expertise in collaborative problem solving and performance assessment, an approach that is better suited to measuring higher order skills (Pecheone, Kahl, Hamma, & Jaquith, 2010). One unexpected outcome was the impact on the affective domain of students, particularly in the area of well-being and self-awareness, something that (Crook, 2011) refers to as been under researched in this digital collaborative domain.

Examples of national specifications can be found on our curriculum website www.curriculumonline.ie. Recently developed junior and senior cycle specifications include a section that details how each subject supports the development of key skills in teaching, learning and assessment. For all junior cycle subjects, we have moved to a dual approach to assessment, where all students must complete two Classroom-Based Assessments for each subject, as well as sitting a final exam at the end of their 3 year cycle. These Classroom-Based Assessments will ensure that assessment takes place closer to the site of learning, and will allow for the assessment of skills that cannot be assessed through the traditional pen and paper model. One of these skills is of course collaboration.

2.4.2. Realisation of the workshops

Workshop 1

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

The National Council for Curriculum and Assessment held a one-day conference on Digital Portfolios and Collaborative Learning in St Georges Hall, Dublin Castle on 17th May 2016. In attendance were 45 teachers, and representatives from the Professional Development Services for Teachers (PDST), the Teaching Council, a teacher trainer from NUIM and 5 school principals.

Objectives of the workshop

Workshop 1 agenda:

Time	Item
09.30	Tea/Coffee/Registration
10.15	Welcome and introduction to the Co-Lab project *Majella O'Shea (NCCA)*
10.45	*'Documenting student learning with e-portfolios'* *Dr. Michael Seery*
11.50	*'Embedding collaborative learning in lesson design'* *Dr. Deirdre Butler*
13.15	Lunch
14.00	*Parallel workshops on collaborative learning and digital tools*

15.30	*Evaluation*
15.45	Farewell and Closing

Description of sessions (what happened during the workshop)

Majella O'Shea launched the Co-Lab project, on behalf of the NCCA and gave an overview of the purpose, expectations, intended outcomes and timeline for the Co-Lab project. Majella highlighted how the project aligns with our curricular reform work, particularly in the embedding of key skills in all subject specifications and curricula at both junior and senior level of post primary education.

The keynote speaker, Michael Seery, (School of Chemistry & Centre for Science Education University of Edinburgh) discussed the changing face of e-Portfolios as places where a journey of a piece of work can be documented rather than just a finished product. During his presentation, Dr. Seery asked the teachers to pause, reflect and discuss three questions amongst themselves.

- Who are your students?
- What kinds of (academic related?) activities do you think they can document?
- (How) do we document softer skills such as "group work"/" team player"?

He then described the role of portfolios in developing a digital identity, and how they could be used to enhance collaboration. He concluded:

- E-portfolios have a place in documenting student learning, often outwith the curriculum
- They can be drawn from a mix of personal and professional digital identities
- There should be an emphasis on creation and showcasing of digital artefacts for a given purpose rather than "filling" an e-portfolio. This will result in them being more useful
- Opportunities exist for increasing digital artefacts throughout the curriculum.

Raised issues. Brief conclusions from the workshop

From the discussion amongst the group of teachers present, it was evident that teachers who had begun to embed elements of student-centred, collaborative approaches into their pedagogies were beginning to see a host of observed student outcomes consistent with 21st century skills. The most commonly cited were collaboration, problem-solving, critical thinking, independence, creativity, resourcefulness, and ICT skills. Whereas for example, when students discuss their work in pairs but do not share responsibility for the work as real collaboration would demand, or the learning activity requires some knowledge-building but students spend most of their time simply repeating information, the same observed outcomes were not evident.

This discussion led very well into a workshop delivered by Dr. Deirdre Butler (senior lecturer in Education at St. Patrick's College, DCU). In the workshop, Dr. Butler described how rubrics could be used for designing truly collaborative learning activities. She described a Teaching and Learning Research Project in which Learning Design Rubrics were created and tested internationally to help educators identify and understand the opportunities that learning activities give students to build 21st Century skills. During the workshop, the teachers applied the rubric to a number of sample learning activities to determine if the tasks in the learning activities required authentic collaboration by students, and if so, the quality of that collaboration. They used the rubric to assess the amount of

shared responsibility for the students work, and to what extent they were required to make substantive decisions together.

The comments from the teachers were very insightful, and reflected a range of experiences and involvement in collaborative teaching and learning. Some teachers said that they had not really understood that collaboration amounted to much more than putting students into groups. They all said that their particular school culture supported collaborative learning, but that the current prevalence of purely subject-based teaching dominated by an end of course high stakes (written) examination was a potential barrier. Mastery of content knowledge by students is a key concern for teachers but many of the teachers observed that with a team-based approach students made faster progress in the assimilation of content than in a traditional, didactic approach. They agreed that if the emphasis on the development of key skills is to have any meaning, it is impossible to envisage a scenario in which collaboration and ICT do not play a central role.

It was clear throughout the day that the teachers present had a very positive attitude, and saw working collaboratively as a way of broadening the curriculum, and introducing flexibility. They welcomed the increased responsibility that it conferred on students. Most of the teachers in the workshop used collaborative teaching to some extent, although the practice is not very wide-spread in their schools. Many cited time pressure as a barrier. The teachers felt that the rubric from Dr. Butler's workshop would give them a much better focus for designing collaborative tasks, and they felt that this would help the planning and the time management.

The subject of assessment of collaborative learning did not feature much in the discussion. Teachers were getting to grips with the nature of true collaboration and felt that they needed more help on how to assess collaborative learning. Some teachers spoke about the importance of having a colleague to work with when planning for collaborative learning. Not only for the support, but also as an advocate for the rest of the staff.

Policy makers' workshop

The discussion at the policy makers' workshop on May 17th focussed on the enablers and challenges.

Enablers

- It is important that the activities for teachers would be tangible. The rubric used by Deirdre Butler in her workshop was seen as a great support in this respect.
- Methods of recording the evidence of collaboration were seen to be important.
- Some work on the pre-planning of the tasks with teachers will be important to build teacher capacity, Geoff Petty's work was referenced here.
- It was recommended to bring teachers together for a design day. Some information should be circulated to teachers in advance of this – e.g. a template for the preparation work.
- Teachers need to build in stages/cycles through the process. There is a challenge in how to monitor progress.
- Policy makers felt it was important to utilise technology to support this process.
- Importance of self and peer assessment - and feedback. It was recommended that this be included in a session with teachers in September.
- It will be important to monitor progress in schools.

Challenges

- Time for teachers to do this work in schools will be the main challenge.
- The Industrial relations situation in relation to reform in Ireland is seen to be a challenge. Managing the message will be important here.
- Teachers and schools feel the pressure of 'initiative overload'. They will need to be supported in seeing that this is really valuable for their students.

Recommendations

- Teachers need help with designing authentic collaborative tasks. The scenarios could be augmented by small tasks that teachers could use to learn how to work collaboratively before undertaking a full scenario.
- More help is needed for teachers in assessment of collaborative tasks. Teachers tend to assess the artefact or the product rather than the collaborative process that went in to it.
- There should be focus on learning outcomes rather than content- how collaboration supports learning as a process not a product.
- For collaboration to be ingrained in teaching and learning, it must be planned for.
- Include references to self and peer assessment as part of CL learning process.

Workshop 2

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

The National Council for Curriculum and Assessment held the second country workshop, a one-day conference on Digital Portfolios and Collaborative Learning in Dublin Castle on the 28th February 2017. In attendance were 50 teachers (this time from both the primary and the post primary sectors) 4 school principals, 2 representatives from the PDST, a representative from the Teaching Council, a teacher trainer from NUIM with 6 third level students, a representative from the National Induction Programme for Teachers (NIPT), 4 representatives from the Education Training Boards (ETBI), an European Schoolnet representative and a representative from the Department of Education Primary Inspectorate.

Objectives of the workshop

Workshop 2 agenda

Time	Item
10.30	Tea/Coffee/Registration
11.00	Welcome *Ben Murray (NCCA)* *Viola Pinzi (European Schoolnet)*
11.25	*Initial Teacher Education Presentations* *School Presentations*
12.25	*Human Focused Technology and Collaboration* *Pete Trainor*

12.45	Lunch
13.45	*Market Place Session*
	Peer to Peer
14.45	*Parallel discussion groups*
15.45	Farewell and Closing

Description of sessions (what happened during the workshop)

Ben and Viola welcomed the participants and gave a special welcome to the primary schools who have only recently come on board as part of the project, and to the third level ITE students who were not in attendance at the previous workshop. We were delighted to see a large representation from the policy sector at this country workshop. Viola gave an update on the Co-Lab activities including the initial feedback on the MOOC uptake; the wealth of resources that were generated as result of the padlets that were created during the MOOC, and she emphasised that the content from the MOOC will remain available as an OER. Viola also gave an update on the various communities of practice and learning networks that are still thriving as part of the project.

At this country workshop, we incorporated some presentations and a market place activity so that teachers could showcase each other's work, and elaborate for the policy makers present the collaborative activities they were undertaking in their schools. There were four presentations in all, one from the ITE students at National University of Maynooth (NUIM), and three from teachers at three different schools.

Descriptions of (the most interesting) good practices in CL, if they were shared during the workshops

ITE Presentations

This presentation focused on a "Design for Change" project that the students undertook as part of a STEM methodology module. The students had to consider a world problem to solve, and collaboratively find the solution to this problem. The module incorporated technology, development education and collaboration. Using the Feel, Imagine, Do and Share (FIDS) framework, the students start by considering and comprehending issues for others in difficult situations, imagine the solution to the problem they have empathised with, turn these ideas into actions and share their ideas and their findings. They undertook this work collaboratively, and all undertook the MOOC to get a deeper understanding of the nature and theoretical understanding of collaboration. They also identified through the 21CLD rubric, the extent of the collaboration that they engaged in with each other.

Teacher Presentations

There were three teacher presentations, all offering different insights into collaborative practices into schools and classrooms. One presentation detailed a teacher collaborative group in a school, where teachers videoed each other in their classrooms and then ask their peers in the collaboration group to focus on an area of the teaching practice, such as types of questioning or 'wait time'. The focus for this group is on teacher professional development, where teachers are actively questioning their own practice and seeking to improve this practice through peer feedback. Within this school, there is a culture of student collaboration in many classrooms.

The next presentation showcased a STEAM (Science, Technology, Engineering, Arts and Maths) room in a primary school, where students come to collaborate on activities ranging from Be Bots, programming drones and coding to other artistic and creative activities. The focus is on a culture where collaboration is central to successful completion of projects, and where students are free to experiment with concepts, ideas and share their thinking, knowledge and skills.

The third presentation showcased a school that is using the Microsoft programme One Note to embed a collaborative culture in classrooms. Here, students all have access to the One Note programme, and they use this online space to offer and receive peer feedback, share their work, engage in collaborative activities and have a repository of their work where they can trace progress, and select items to submit for assessment purposes. Within this school, the 21CLD rubric is central to their understanding of collaboration, and all teachers in the school have received professional learning on how to embed collaborative practices in their classroom using the rubric as a support in the principles of collaborative lesson design.

The keynote address from Pete Trainor focused on how the future of technology will shape our education experiences. He gave an insightful and thought provoking talk on how as we move into the future, technology will disappear and that it will amplify the best qualities of humanity and humanness. He talked about how AI is going to be part of the education landscape of the future and how mapping AI into classrooms will lead to transformative classroom experiences. His final comment was that we are not digitising teaching, but teaching in a digital world, and that this opens up powerful collaborative education experiences.

Following lunch, we moved to the market place activity, where all schools present set up a 'stall' and showcased samples of collaborative activities they were undertaking in their schools. All teachers and policy makers present were free to visit the stall of any other school and were encouraged to ask questions and share practice and ideas with each other. This activity was a big success with practitioners and policy makers alike getting a great insight into how students, teachers and schools were experiencing a move to a collaborative learning, teaching and assessment culture.

Following this, there were parallel discussions; one with the practitioners (teachers and ITE students) and one with the policy makers present. Below is a summary of these discussions

Raised issues

Obstacles

Here is an overview of the obstacles as experienced by the practitioners in implementing collaborative practices into their classrooms:

- Time: need to be in the same space
- Collaboration can be competitive (between students)
- Exam system: Parents and students want to see the grades and results
- Some teachers felt that their lack of creativity gets in the way in thinking how to redesign classroom activities; thinking of new ideas is the hardest part
- Children objecting to the concept can be a challenge
- Poor IT infrastructure
- Student absenteeism can hinder progress

Enablers

Here is an overview of the enablers as experienced by the practitioners in implementing collaborative practices into their classrooms:

- The teacher workshop events (such as this)
- A new and less formal approach to classroom layout and structure
- Support from other teachers/management and colleagues
- Learning from other teachers doing similar collaborative activities
- The 21 CLD rubric
- Technology does help in overcoming some obstacles
- Peer teaching and peer to peer student learning
- A reflective process is needed by teachers

From the policy maker group, the following points were raised:

- The 21CLD rubric is very helpful as it clearly identifies the characteristics of collaborative learning and it helps situate the practice in my school
- The use of rubrics is not common in the Irish system, and it is important to share successful rubrics with the wider system
- The formation and the make-up of groups is crucial
- Diversity within the group is very important
- Collaborative teaching and learning is good as it provides a balance between the cognitive and the affective domains

Obstacles: There is a tendency to complete work individually due to exam pressure; the potential impact (and focus of) inspections; difficult to facilitate collaboration between teachers.

Enablers: new reform at junior cycle level which allows for different approaches to assessment and allows for more flexibility in organising the experiences of the curriculum; teachers liaising with each other; co-operation between national and international projects and students showcasing and speaking about their experiences of collaborative teaching, learning and assessment.

Recommendations for the MOOC – what should be emphasised during the training?

The teachers and ITE students who had completed the MOOC had mixed views on the experience. Some expressed frustration at the time line and were very clear that there was too much to do in a tight time allocation. Others found the MOOC very helpful, were very happy with the resources provided, and those that completed the MOOC were keen to encourage other teachers to enrol and complete the MOOC. The ITE students met once a week to discuss their progress with the MOOC, and they reported that this face to face meeting was crucial in them successfully completing all stages of the MOOC. It does appear that working and engaging in a purely online context was challenging for some of our teachers. Many of the teachers were keen to be able to dip in and out of the MOOC, and expressed that they will, in the future, continue to access the resources and the content to support their understanding of collaborative learning, teaching and assessment.

Recommendations for further actions in the project – ex. communication with participants, what should be required from participants, assistance for participants, other arrangements?

There was support for continued access to the MOOC and the resources attached to the online course.

Our teachers are keen to see examples of collaborative practice from other countries that are participants in this project, and we are going to follow up on this.

At this workshop, the ITE students and teachers from four schools gave a 15-minute presentation on their experiences of designing and implementing collaborative experiences in classrooms, and the policy makers present found this to be one of the most significant insights into school practice that they had recently seen. We will continue to utilise this approach in subsequent workshops.

At this workshop, we created a 'market place' event, where every school was invited set up a stall and showcase/demonstrate the collaborative activities in their school/classrooms. Again, this allowed teachers from other schools and the policy makers present to get a feel for what is happening in other schools, and ask questions of each other. A collaborative practice for a project on collaboration!

We will be bringing some students from each school to the next country workshop and will be asking students to talk through their collaborative learning experiences. Each teacher and policy maker will get the opportunity to experience the work of every other school, and this sharing of student stories, and hearing their voices, will hopefully inspire all those present to continue with these collaborative practices and inspire others to adopt them.

A final comment and observation from the country workshop: we do have schools that are engaging in innovative and creative collaborative practices, and are making great strides in their task and scenario designs. However, we also have a set of schools that are finding the move to this collaborative approach challenging and slow to embed. These schools need to be encouraged to keep pressing on and not to lose heart when the obstacles seem overwhelming at times. We need to be alert to the variances between schools and consider the different types of support that different schools/teachers may need.

Workshop 3

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

The National Council for Curriculum and Assessment held the third country workshop in Marino Institute of Education (MIE) on Thursday, 18th May, 2017. The conference theme centred on students' experiences of working collaboratively with their peers and teachers. As such, there was no formal keynote address to the conference delegates, instead the day was orientated towards learning from and empowering the students involved in the Co-Lab Project.

In attendance at this third country workshop we had teacher and student representation from 13 of our Co-Lab schools and representatives from the Teaching Council, the Inspectorate, University College Dublin (UCD) and the Professional Development Services for Teachers (PDST). Over the course of the day, videos were being shot of the various presentations and interviews conducted with teachers, students, NCCA staff and policy makers.

Objectives of the workshop

Workshop 3 agenda

Time	Item
10.30	Tea/Coffee/Registration

11.00	Welcome
	Ben Murray (NCCA)
	European Schoolnet
	Viola Pinzi
11.30	*School Presentations*
12.30	*Room preparation for Market Place*
13.00	Lunch
14.00	*Voices from the Classroom*
	Student Market Place
15.00	*Close*
	Information and Next Steps
15.30	End

Description of sessions (what happened during the workshop)

The day comprised of two parts. The first involved seven short presentations from students and teachers participating in the project. This enabled a showcasing of some of the practice supported through Co-Lab, whilst affirming the work of these schools. Students from both the primary and post-primary sectors took a lead role in preparing and presenting their presentations. The focus of the day was about the move from theory to practice. We have offered the schools in the project lots of professional learning and support on the notion of collaboration, approaches to collaboration, theoretical frameworks to support teacher and student engagement with collaborative activities and technical support in using digital resources to enable synchronous and asynchronous collaborative activities. This workshop was centred on demonstrating how the theory was converted into classroom practice.

Before the student presentations we had an introduction from Ben Murray, NCCA, followed by Viola Pinzi (European Schoolnet), who gave an update on: the development of the MOOC rerun, which is scheduled for the autumn; the next phases of the project; feedback and evaluation of various aspects of the project to date, and information on the upcoming Eminent conference due to take place in Brussels in November.

At 11 a.m., we moved to the student presentations. The first presentation from St Macartan's College started with the question, how do students collaborate in 2017? They outlined the collaborative process in a national law debating contest, as well as using their e-portfolios as a collaborative space to assist in the co-ordination of the school musical. The process of peer review and feedback were highlighted as particularly important aspects in these projects.

The second presentation was from Malahide Community School. They showcased how they use a platform called 'Schoology' to enable teacher and student collaboration. This platform allows collaboration across all levels: teacher to teacher, student to teacher and student to student. This

flexible online space allows for synchronous and asynchronous collaboration and allows students to collate their artefacts and then decide on which to present for assessment purposes.

The third presentation was from a primary school, St. Mary's Parish National School. This presentation focused on the enhancement of student enjoyment and engagement through the use of collaborative online applications, such as Google Docs. Students outlined how they enjoy providing and receiving peer-to-peer feedback and the benefits of collaboration in the writing process.

The fourth presentation was made by Coláiste Bhaile Chláir who presented on their use of collaboration in STEM. This presentation described the collaborative environment of the school and their focus on skills development and role taking in group activities. They also demonstrated how the classroom layout in their school has moved away from a traditional model to one where flexible seating arrangements permit collaborative activities. They also demonstrated how they use the application One Note as a collaborative space. They showed us some of their rubrics and templates for peer and self evaluation.

The fifth presentation was made by Coláiste na Carraige, who described their approaches to collaboration in science subjects. The use of audiovisual technology to examine how collaboration is taking place was highlighted as a useful tool. They also explained how some teachers in this school use video technology to record their classes, and seek feedback from teaching colleagues on targeted aspects of their pedagogical approach.

The sixth presentation was made by a primary school, Lacken National School, who have developed the first STEAM room in Ireland. The room has been developed over several years. It is a 'child-led zone' with the teacher acting as facilitator. Activities in the room include construction, programming, design, engineering and experimentation to name but a few. Students are encouraged to work in pairs or groups and to assign roles and responsibilities to ensure effective collaboration.

Descriptions of (the most interesting) good practices in CL, if they were shared during the workshops. Raised issues.

The second part of the day centred around the concept of 'Voices from the Classroom'. This involved a market place scenario in which all participating schools prepared a showcase of some of the experiences of collaborative learning. These typically centred around a demonstration of the collaborative project undertaken alongside student reflections on the project undertaken.

Delegates were encouraged to ask probing questions as to the student's role and responsibilities in the project. Discussions with the students provided an insight into their understanding of the collaborative process. Some of points that emerged from these discussions included:

- Having clear guidance on the project undertaken
- Clarity on each member's role and responsibility during the project
- Ensure a collaborative approach is taken from the initial design phase, not just during the development phase
- Communication between members is a key tenant of effective collaboration
- Briefing and debriefing sessions are important features of a project design.

2.4.3. Results of the workshops and of the project

Understanding of collaborative learning

How did participants understand CL?

There was a broad range of expertise amongst the teachers, ranging from those who found it difficult to move from group work to genuinely collaborative work to those whose students were so used to collaboration that it was part of their daily teaching and learning experiences rather than an add-on.

It is interesting to see the progress made by some teachers and schools from the first workshop in May 2016 to June 2017. The feedback at the end of the May 2016 workshop highlighted for us that teachers needed help with designing authentic collaborative tasks. We gave them this support and it was clear by the third workshop in June 2017 and through the mentor visits, that their understanding of these design principles had progressed. Also at the first workshop, we received feedback that support was needed in the assessment of collaborative tasks. As the year progressed, their confidence in this improved, both through the resources provided by the MOOC, and through the sharing of rubrics with each other. It was a challenge for some to think about assessing the process rather than the final product.

The teachers that were not expert in collaborative teaching methodologies found workshop 3 extremely useful. Teachers had the opportunity to speak with students, so found out what skills the students felt that they had developed by engaging in collaborative work. The teachers who were struggling reported that the student presentations of their work, and the conversations that they had with the students would impact significantly on their work.

All recommendations and conversation on obstacles and enablers are detailed in the workshop descriptions above.

Dialogue between practitioners and policy makers

Did practitioners and policy makers exchange opinions during the workshops? How was this dialogue organised? (if not – why. Describe the difficulties in engaging policy makers if relevant)

Policy makers and practitioners freely exchanged opinions and ideas at all the country workshops. As the second and third workshops were constructed around the notion of sharing practice and exchanging ideas, policy makers and practitioners were given the opportunity to converse in an informal and relaxed way. Policy makers were free to ask teachers and students questions on what was happening in their classrooms, and in return students and teachers were very happy to tell their stories. It was heartening to hear one representative from a support agency saying that the second workshop was the best professional learning he had had in the last couple of years.

What issues were raised in the discussion between practitioners and policy makers?

The issues that were raised are outlined above in the workshop description. In summary, the issues raised were focused on:

- The need to share practice among schools
- The need to include a child-led element to the collaboration
- The barrier of a siloed structured of education through the use of subject based curricula
- The enhancement of student wellbeing and empowerment is a key by-product of this work

Use of group work and collaborative learning by practitioners

Did they use group work? How, what methods? How did they assess group work?

This is detailed above in the summary of the workshops.

In summary, as teachers became more confident in collaborative learning methodologies, their approach to assessment changed. Many of the teachers involved were used to assessing product rather than process. During this project, as teachers applied the CL rubric to tasks, they came to realise that for assessment to be valid, it must include measurement of collaboration as well as knowledge. The teachers expanded the assessment of cognitive domains to include metacognition, and also included assessment within the affective domain, this was the first time many of these teachers had considered metacognition or the affective domain in assessment.

In some cases, teachers reported that they had started to use the collaborative teaching methods in other areas of their work. Many teachers designed new and innovative lessons, and used the CL rubric to assess the level of collaboration that was involved. One teacher reported that she had felt that focussing on collaboration brought a new and valuable dimension to content areas that she had taught the same way for the last 30 years.

The teachers involved in the project started to collaborate with each other much more than they had done before the project. In most cases, except for the most advanced schools, this took time. Initially, some teachers were very reluctant to engage in what they perceived as contrived collaborative activities, but by the end of the 2016-2017 school year, the same teachers learned how genuine collaboration could happen without contrivance, and how it could enhance their professionalism as teachers and, ironically, give them more autonomy. This increased professionalism and autonomy affected teachers' confidence and made them more likely to try something different. One teacher commented that she had learned the benefits of self-evaluation and now includes it as a reflective process at the end of each activity.

2.4.4. Project organisation, cooperation with and support for project participants

Project implementation in your country

Who was involved in the project implementation in your organisation (and in cooperating organisations if relevant)? What were the roles of this staff? Did this approach to project implementation work well for you and the participants?

This is detailed in the introduction section.

Recruitment of participants to the project, to the MOOC and workshops

How was it done – e.g. open recruitment or selected schools? Why? Were there links to other projects - if yes how did it help? Any issues?

The recruitment process is detailed in the Introduction;

Regarding the MOOC we used Twitter, FaceBook, the NCCA website and other support agencies to publicise the MOOC and encourage people to participate.

Maintaining contact and support for participants. How did you help participants? E.g. contact persons in schools, mentors for schools, the activities of the national contact person(s), meetings of participants, additional meetings/workshops etc

As outlined in the Introduction, we did this through a mentor approach, where each school was appointed an NCCA Education Officer as a mentor, which meant that the personal and individual needs of each school could be met. These mentors would visit the school if needed, organise some technical or pedagogical support and ensure that the schools and students were prepared for the upcoming country workshops.

What issues did the participants have? What forms of contact / support worked well? Use of virtual platforms (national Facebook group, Yammer, other...)

Were they used, were participants active (if not, why), were virtual tools helpful, any issues…?

The mentor system was a huge success and we would have struggled to keep schools on track without this targeted intervention. Irish teachers are reluctant to share freely on platforms such as Yammer and Facebook and these virtual communities of practice were not used by all teachers, with some teachers reluctant to engage in these online platforms completely. Therefore, the visit, or the call or the email to or from the mentor was a vital lifeline for many of our teachers. All our teachers would agree that the workshops (in particular the second and the third workshops) were the most powerful for shifting their beliefs, their thinking and their planning for the future.

The MOOC - content

Did participants comment on the scope, level, content of the MOOC – e.g. topics, methods covered? If yes, what were the comments? Was the content relevant to their needs and their level of competence?

Some of this is detailed above, but most of the participants found that they did not have the time to engage with the MOOC and therefore could not complete it. Those that completed it were very favourably disposed towards it, but for many it was too long and too detailed to complete. It also came at a stage in the year where all schools were closed for a week and many teachers were away on holidays, or otherwise engaged for that week.

The MOOC – organisational and technical. Any issues, for example timing, technical issues, language issues? Did you help participants to profit from the MOOC? How? Did it work? For non-native English speakers - were there language issues, did you provide help (what kind)? How did it help?

There were no issues raised with the technical aspects, except that the Padlet was slow to function at times. The only other comment related to the MOOC came from the third level students who were completing the MOOC. They had a regular meeting at the end of the week to discuss progress and offer support to each other on the MOOC, and they commented that this was vital in them being able to complete the MOOC. From their comments, it is clear that they struggled with the online engagement per se, and needed to supplement the online course with some face-to-face conversations.

Project design and implementation at international level

Conclusions regarding project organization, recruitment and support.

What worked well for you in the implementation of this project? Is there anything you would have done differently? What should be taken into account in the organization of similar projects in the future?

My only comment and I would have said this before, is that I think the partner countries need to meet more, and that these meetings could take place in a virtual format, and don't need to necessarily be face to face. I would have liked and benefitted more from hearing more about what was happening in

other countries, and our teachers have commented that they would like to see and hear more about the implementation in other partner countries.

2.4.5. Recommendations

Reference the recommendations detailed in the sections above.

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2.5. Poland

2.5.1 Introduction

The Educational Research Institute (IBE) has implemented the Polish edition of the CO-LAB international project Promoting innovative collaborative teaching and learning, involving 7 European educational institutions from 5 countries. The European leader of the project was European Schoolnet, an association of, inter alia, ministries of education from the countries of the united Europe.

The project focused on supporting the professional development of teachers in the area of innovative teaching methods and tools used in classrooms and, above all, the use of collaborative learning (CL). The project promoted, developed and deepened teamwork skills. IBE research and other research institutions indicated that this form of classroom organization is rarely used by teachers in Poland who are afraid of losing control over the lesson, and have difficulty assessing the contribution of individual students into the result of teamwork. On the other hand, the competence of teamwork is highly appreciated by employers, who for years have also been indicating at its insufficient level among school graduates searching for job. The project was addressed to teacher training institutions (teaching both active and future teachers), schools, education managers, and institutions supporting development of schools. It envisaged the dialogue of professionals - practitioners and decision-makers - as a support for the development of collaborative teaching and learning in schools.

The main aim of the project was to provide project participants with knowledge and skills on CL in school practice in order to make those skills easily and as widely as possible used in schools and academic practice.

In addition, extensive dissemination of knowledge about the CL method was also made through inviting non-participants to take part in the workshops and publishing information and materials on the publicly available IBE website.

During the Polish edition of the project, the following activities took place:

- A series of meetings (May 2016, March 2017 and June 2017), addressed to teachers, representatives of institutions supporting education, and higher education institutions teaching future teachers;
- Online training on the MOOC platform developed by European Schoolnet, addressed to teachers, future teachers and teacher trainers.

The main purpose of these trainings was to implement disseminated didactic methods in school classrooms and during teacher (and future teachers) training classes. The Educational Research Institute - in cooperation with its Polish project partners, Mazowieckie Samorządowe Centrum Doskonalenia Nauczycieli (MSCDN), Warszawskie Centrum Innowacji Edukacyjno-Społecznych (WCIES) and the Faculty of Pedagogy of the University of Warsaw (WP UW) - was responsible for recruitment of project participants, workshop training and supporting MOOC training of project participants ie teachers, future teachers and the trainers.

An additional task of the Educational Research Institute was to carry out an evaluation study that would respond to the question to which extent the participation in the project brought deeper knowledge of the CL method, resulted in its better understanding and more frequent use of the method in practice. A total of 350 project participants, including 22 from Austria, Belgium - 33, Ireland - 40, Poland - 66 and Portugal 189 - took part in the survey.

Among the respondents there were 70% teachers, 8% school principals, 17% school managers and coordinators, trainers and consultants - 18%, future teachers with teaching experience 10% (2% without teaching experience), future teacher trainers 6%, employees of education supporting institutions and educational authorities - 7%.

Benchmark survey results (on project launch) were presented during the second and third workshops, final results will be part of the final project report.

The main project activity was the on-line training on the MOOC training platform developed by the European Schoolnet, project coordinator from Brussels.

The training consisted of 4 modules, conducted by participants in 4 consecutive weeks from October to November 2016. Each module was devoted to a specific issue related to the collaborative learning:

- Module 1: What is collaborative learning?
- Module 2: How can you apply CL in the school practice?
- Module 3: How can we assess individual students in CL?
- Module 4: How can teacher cooperation facilitate students learning through collaboration?

After training completion, participants received individual certificates of participation in the training.

Each module had its goals set out, and there was also a variety of educational materials such as video presentations (main themes and topics), expert presentations, interviews with practitioners or examples of CL applications in school practice, exercises and quiz, checking the level of memorized information, source materials and online discussion forum.

The final work on the training platform was the preparation by each participant of the CL lesson scenario, submitted for peer-to-peer assessment under random assignment, and complemented by two peer evaluations of two randomly selected MOOC scenarios. Thus, in summary, each training participant was supposed to demonstrate specific skills based on gained knowledge of CL teaching.

Moreover, within the framework of the Polish edition of the project, 3 workshops were prepared and conducted for the participants of the project as well as for people outside the project interested in CL topic. The description of the workshops is done in the subsequent sections of this report. Throughout the duration of the project, respective information was placed on the IBE website at http://www.ibe.edu.pl/pl/projects-international/Co-Lab. There was also a Polish fun-page project on Facebook.com.

Working in groups and collaborative learning in schools in national legislation

Educational studies conducted in different countries show that activation methods are more motivating for students, as they are more likely to develop their own knowledge and skills. Activation methods include, but are not limited to, problem-based learning (PbL), cooperative learning (CoL) and collaborative learning (CL). Some researchers believe that these three ways are more than just methods, they believe that those are defined styles of teaching and learning.

Each of them is effective in:

- Activating and motivating students,
- Developing social competence,
- Engaging participants in the didactic process,
- Promoting cooperation,

- Avoiding competition, fighting for position, ranking.

In each of these methods, the central character of the process is the student, the teacher acts as a mentor, supports self-learning by the students.

What differs those three methods is their purpose. For cooperative learning the main objective is the realization of a particular task, collaborative learning aims to develop the ability to create, creation of knowledge and skills of cooperation, for problem-based learning the most important is to develop solving skills of problems related to real-world situations.

Collaborative learning is primarily used to:

- develop skills of cooperation,
- motivate for self- construction of knowledge,
- learn how to acquire knowledge by interacting in a group.

This does not mean that this learning style lacks the goal in terms of merits, tasks to accomplish. They are present, but they are not a central point of the process.

Next steps in collaborative learning are:

- involvement,
- exploration,
- transformation
- presentation,
- reflection.

In educational practice, Polish schools can meet certain elements of collaborative learning, mainly by the implementation of the project at the stage of lower secondary school, where it is compulsory for students. Relatively few teachers implement this method in primary or higher secondary schools. It is worth noting that teachers rarely work with groups of students (see below) in classrooms, which precludes their use of the method of collaborative learning.

In Polish school, only few teachers use a form of group work in educational activities, as evidenced by the research results. Group work is mostly evidenced in physical education and foreign languages classrooms, which enforce this form of working as it fosters both natural communication in sports and enhances the language skills of students.

Usually, however, group work has the nature of cooperative learning, or performing specific tasks in the group. The TALIS survey, carried out in the IBE over population sample of 40% of teachers reported that they used a form of group work often, and about 50% of them only sometimes. In comparison to other European countries participating in the survey it is the average score - between Denmark and Norway, where the use of this form of work admits about 70% of teachers, and Italy, Croatia, Spain, Netherlands and Lithuania, where only about 33% of teachers declared its use in the classroom. (Hernik 2015 , pp. 25-26).

The survey on the style, forms and methods of teaching English in secondary school confirmed that the group work is often used in teaching foreign languages - 50% of the surveyed English teachers declared its use. It should be noted, however, that only 10% of higher secondary school students indicated that group work is used for English lessons, 44% of the students indicated that they work in groups has not been used for English lessons in which they participated. According to the students,

work in small groups is used much less frequently than working in pairs. Thus, there is a big difference between declarations of teachers and students of the schools surveyed (Szpotowicz, 2014).

Systematic observations of English lessons in the final grade of primary school showed that the group forms of work used at this stage of education are less likely than indicated by declarations of teachers and secondary school students. Working in pairs or groups constitutes less than 10% of the forms and methods used in the classroom (Muszyński, Campfield, Szpotowicz, 2015, pp. 52-531).

The results of research on teaching of mathematics in lower secondary school show a large disparity between the conviction of teachers on the application form of group work in class and the results of observations that shows that any of the classes observed used this method (Karpinski, Grudniewska and Zambrowska, 2013).

In the publication, there was a characteristic quote from one of the interviewed mathematics teachers:

> "... as concerns teamwork, I would ..., be as far as I can away from it. I rarely use it, because one person is working, two, and the rest does not always work, if I had to use it – it would be a very small group, up to 3 persons "(teacher, village, podlaskie voivodship)."

Observations of lessons for different forms of work used during the lessons of the Polish language and mathematics were also conducted in the Study on Determinants of School Education (SUEK), implemented by IBE. Both in Polish language lessons and mathematics dominated the work of the whole class, in conjunction with the work of an individual student, a group or in pairs (40% and 45%). Group forms of work (not combined with others) were used in 3% of the tasks performed during lessons observed by researchers.

Similarly science lessons look like. Preferred by biology teachers' working methods are the passive method of listening - every second respondent in the survey (student) declared that he/she listens to the explanations of the teacher in every lesson. The second method was an individual student work (approx. 40 %). More than half of the surveyed students declared that they had never participated in any work on problem solving in a small group. Just as in the study of the forms and methods used for English lessons, this study also produced conflicting declarations of students and their teachers. Only 14% of teachers surveyed stated that they never used small groups work on the experiment or study (Fedorowicz, 2015).

In the study on the needs of biology teachers in primary schools a question was posed on how often students perform experiments in groups. Approximately 2% of respondents chose the answer almost every lesson, more than 50% - several times a year, about 5% - never or almost never.

The same study found that approx. 45% of the teachers admitted that on every or almost every lesson student's work individually with a textbook or workbook. It is worth noting that the magnitude of classes in terms of the number of students did not affect the choice of forms of work (Grajkowski, 2014).

A positive signal can be data from the research titled Design of the optimization of the use of teaching tools IBE in classroom practice, carried out by the IBE among teachers of lower secondary schools of various subjects. They indicate a change in the style of work of teachers participating in the project, aiming at the implementation of specific teaching tools for collaboration work. In the description of lessons by teachers using teaching tools developed by IBE researchers, it turned out that quite often they took into account the form of working in pairs and in groups.

> When introducing teaching units, I used to use group work and teamwork. (opinion from the project final questionnaires, completed by teachers) (IBE, 2015).

From the above review of the research, it can be observed that Polish schools use rarely activating methods, the group work in particular, both as regards cooperative learning, as well as more advanced collaborative learning. This pessimistic picture may be partially lightened by the introduced compulsory group project at lower secondary schools level, carried out by teams of students, but there are no studies that have shown how it is actually implemented in Polish schools and whether and to what extent it contains elements of collaborative learning.

It is also worth noting that some research studies reported the disparity between declarations of teachers and students' statements concerning the application forms of group working and it may indicate that there is a certain level of teacher's awareness on its high value in teaching. Teachers are aware of the importance of this form in the development of social skills and peer-to-peer learning of students. They do not use it often, perhaps because of the lack of skills or because of their habit or professional routine.

Given the above, the most important for Polish partners of the project seems to be the widest possible dissemination of this form of teaching in different subjects at different levels of education, combined with the dissemination of specific, practical information on its use as well as encouraging teachers to implement it in school practice.

Is social competence defined among learning outcomes in regulations (core curricula)?

CL in Polish legislation on education till 2017

Legislation on education includes inter alia:

- 1. The Education Act;
- 2. Regulation of the Ministry of Education on the core curriculum of pre-school education and general education for different types of schools
- 3. Regulation on the Ministry of Education requirements for schools and educational institutions;
- 4. Regulation of the Ministry on assessing, classifying and promoting pupils and students.

In **the Education Act,** only two articles mention forms of collaboration in educational activities, one of them refers to them only indirectly.

Article 21a paragraph 3 of the Act refers to the Regulation of the Minister of National Education, concerning the requirements for schools and educational institutions, which constitute at the same time the criteria for assessing the quality of their work. In the Regulation, one can find requirements for nursery schools and pre-schools related to the development of social skills, which also include the ability to work in a team. The requirements for pre-schools comprise one point no 5 stating that:

> Attitudes are shaped and with respect to social norms, as described in the basic requirement:
>
> Pre-school shapes the attitude of responsibility of children for their own activities and activities of the group.

The requirements for primary, secondary and post-secondary schools do not include any implicit record on group working, while the high requirement is worded as follows:

> Educational processes are organized in a manner conducive to learning - Students have an impact on the organization and the process of learning. Students learn from each other.

The students' learning from each other and their effect on the way the organization and the process of learning are the elements of collaborative learning, so it may be considered that this provision is very important to promote this method in the Polish school system.

Article 44 p. 1 of the Education Act refers to above mentioned compulsory lower secondary education group project and can be read as follows:

> Lower secondary school students participate in the educational project, which is a team project, a planned action by students, aimed to solve a specific problem using a variety of methods.

In addition to the above an Article 44 indicates how project should be implemented and assessed, noting the need for inclusion in the criteria for assessing student behaviour and student participation in project implementation.

Fairly implemented project can certainly be an example of a good practice in the application of collaborative learning.

The Regulation on the Ministry on the curriculum for the preschool sets the goal of preschool education as developing social skills that are necessary for proper relationships with peers and adults. To achieve this goal, pre-school should support child development, educate and teach children through, inter alia, development of social skills such as communication with adults and peers, proper cooperation in the sports and task performance situations.

In the preamble to the core curriculum for primary schools among the 7 most important skills acquired in the course of general education the group working is mentioned. The content curriculum for early childhood education (grades I -III) includes a section entitled Social Education, which draws attention to the education of a compatible interaction with peers and adults.

According to the provision in **the preamble to the core curriculum for lower secondary school and higher secondary school** – the teamwork is one of the eight most important skills acquired by a student in the course of general education at the third and fourth level of education.

Unfortunately, the objectives and course content for classes IV - VI of primary schools, for lower and higher secondary schools - there are no direct references to learning with the use of work groups or teams. According to the preamble to the core curriculum for junior high school and upper secondary school one of the eight most important skills acquired by students in general education in the III and IV education is earning through teamwork. The purposes and teaching content for grades IV-VI of junior high school and upper secondary school do not contain any direct reference to learning through the use of teamwork.

IBE conducted a comparative research on biology core curriculum for Poland and 4 European countries - England, France, the Czech Republic and Estonia. The study showed that Polish core curriculum differs from foreign ones inter alia by a lower degree of integration of science education and the correlation of their content and less emphasis on the development of key competencies, including social competences. Polish core curriculum in smaller degree than foreign documents put emphasis on the work of the project method, and presents a different approach of student teaching - Polish student should master his knowledge and skills, a student of English, Estonian, Finnish should develop motivation to learn and develop the ability to control his further education, to bear responsibility for it, which to a large extent is implemented through collaborative learning.

Analysing these legal acts on education, it may be noticed that there is a lack of a coherent, clearly specified ideas on promoting collaborative learning, working in a group. In some of them there are

provisions indicating the need to develop the ability to work in a team, in others the lack of such regulations is observed or they are formulated ambiguously.

Regulation of the Ministry on the assessment, classification and promotion of students does not include the criterium of teamwork skills in the assessment of behaviors and assessment of the subject.

The external examination system functioning in Poland bases its action on the provisions of the Education Act. Within the system diagnostic tools in the form of tasks, examination papers are developed, pilot projects and exams are carried out to test them, analysis are made and reports published. Unfortunately, the system of external examinations lacks any reference to the assessment of learning skills through cooperation or collaboration, it is rather a ranking - the results of the examinations are used to evaluate schools by the authorities and to conducting and evaluating the work of teachers by school principals.

School legislation in Poland often changes, it generally refers to a small, but still significant areas. The last big change in the form of the implementation of the so-called new core curriculum took place in 2009. As a result, core competencies of student as described by the European Commission documents, including the ability to work in a team, have become an obligation for teachers. However, they were not followed by changes on the objectives of education and teaching content, which would indicate the possibility of using the method of collaborative or cooperative learning or form of group work. Thus only provisions remained that that teachers can alter their work to a different extent or not to implement at all.

Currently, the system of education in Poland is facing another change, associated with the change of the ruling political option country. One can only hope that maybe the next, announced good change draw attention to an even greater extent on the development of learning skills in collaboration and interaction and prepare such system solutions that facilitate and encourage teachers to carry out this task in schools.

Regulations of in-school assessment – can CL be assessed, is it required?

The Ministry of Education regulation on the assessment, classification and promotion of students of different types of schools regulates the assessment issue. There is no clearly defined point in the regulation on the assessment of CL learning outcomes. On the other hand, any teacher, a team of subject teachers (e.g. chemistry or biology) or a team of teachers such as the pedagogical board can introduce rules on CL assessment into the internal school regulations on subject or in-school assessment. Thus, the assessment of pupils CL is possible, depending on teachers. In addition, many schools apply their own assessment criteria of students' behavior, which play a critical role in the ability to cooperate/collaborate in a team.

Regulations on school organization. Ex. do timetables permit teachers to use active approaches such as CL? Teacher remuneration and promotion – what is rewarded, can the use of CL contribute to promotion? How much freedom does the head teacher have do define these?

Unfortunately, in most Polish public schools there are standard class schedules based on a 45-minute unit. Relatively rarely the blocking of lessons is used. Therefore, if teachers implement CL, it usually is limited to the implementation of projects (i.e. lower secondary schools projects) or short tasks that can be completed within 30-40 minutes.

How has it changed within recent 2-3 years? Do these changes support CL?

The changes introduced by the 2008 education reform clearly highlighted the importance of education and the development of teamwork skills. Unfortunately, there is no clear definition of what is meant by teamwork - whether it's just co-operation in getting things done by the teacher or a deeper interaction in defining the goals, methods and ways of achieving goals by the students in the team. The current changes (reform of 2017) does not introduce anything new in the field of promoting teaching and learning through CL.

In 2016 and the first half of 2017, many amendments were introduced in education law, mainly concerning changes in the school system, including liquidation of junior high schools and replacing them with 8 years old primary school. The curriculum of pre-primary education and general education was also amended by amending the Regulation of the Minister of National Education of 14 February 2017 on the core curriculum for pre-school education and general education. By analyzing the changes, it can be seen that in most cases old records have been retained for shaping and developing teamwork, sometimes modifying them slightly or changing their location in the document.

At the stage of pre-school education among the tasks of the pre-school the task 6 *Strengthening the need to create personal relationships and participation in the group* was maintained.

The curriculum for early school education states:

> In terms of the social development area the student achievements (...) 5) ability to create relationships, cooperation, cooperation and self-organization of work in small groups.

> In the field of social education the student (...)

> 10) uses teamwork in the learning process, including taking on the role of team leader.

The revisions recommend the use of the form of group work and development of the described skills at both educational stages. However, it is worth noting that there is no description of working standards in a group/small group, so anyone implementing the recommendations in school practice can interpret them in its own way.

A list of the most important skills developed in primary school in grades IV-VIII can be found in item 6, *i.e. teamwork,* as well as *the importance of developing a young person and his or her success in adult life is gaining social competencies such as communication and teamwork*. However, in these provisions there is no standard setting that would define a specific way of understanding and implementing this form of student work.

It can therefore be said that the modification of the core curriculum has not brought anything new compared to the existing teaching guidelines on collaborative teaching or group work.

It is worth noting that the role of teamwork for teachers is still underlined, as it has been the case so far. In the Regulation of the Minister of National Education of 6 August 2015 on the requirements for schools and institutions you can find the following:

> 7. Teachers collaborate in planning and implementing educational processes.

If the school implements this provision in such a way that teachers, including teachers working in one school, work together in planning, organizing, implementing, and modifying educational processes, teachers help each other and solve problems together, ten this can be classified at the basic level as regards the implementation of point 7.

Being on higher level is possible when at school, in addition to meeting the above requirements, teachers *help each other in evaluating and improving their own work, introducing changes in the course of educational processes (planning, organization, implementation, analysis and improvement) and the above occurs as a result of teachers' collaboration*.

In summary, the recent change did not make a significant difference in teamwork or group recordings for both students and teachers - there is still a lack of coherent, well-defined ideas promoting collaborative learning and group work in educational law documents. In some of them there are provisions indicating the need to develop teamwork skills, others lack such provisions or they are formulated ambiguously.

The same emphasis was placed on applying this form and method of work while implementing the project. However, despite repeated calls, workshops were attended by only one representative of the Ministry of National Education. It can therefore be argued that its application will continue to depend on the commitment and willingness of schoolteachers and academics.

2.5.2. Realisation of the workshops

Workshop 1

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

The workshop was held on 18 May 2016 at the headquarters of the IBE in Warsaw. It was attended by 47 participants, including teachers, counsellors, teacher-consultants, representatives of the Centre for the Development of Education and local education authorities as well as representatives of local governments. Unfortunately, representatives of the Ministry of Education were missing (cancelled their participation in the very last moment).

Objectives of the workshop

One of the goals of the May workshop was to familiarize the participants with:

- the main objectives of the project Promoting innovative collaborative teaching and learning (Co-Lab);
- psychological backgrounds and mechanisms for operating in a group;
- examples of application of forms of group work in the classroom for chosen school subjects.

The second, equally important goal was to diagnose whether and to what extent the Polish school uses method of collaborative learning or similar form of collaboration, what factors stand for the facilitation of its use and what are the barriers. It was assumed that the diagnosis will be possible if the participants provide information on the following topics:

- practice of group work in classrooms,
- factors for facilitation work in groups,
- barriers for work in groups,
- the needs of participants in terms of raising the level of their ability to apply the method of collaborative learning.

Workshop 1 agenda

Session 1

- Presentation of the objectives and timetable of the project CoLab by the project leader Agnieszka Rybinska (IBE);
- Psychological basics of working with a group - a workshop led by Dr. Radoslaw Kaczan and Dr. Piotr Rycielski (IBE).

Session 2

- Examples of good practices, the use of group work in the classroom - a workshop and discussion moderated by Urszula Poziomek (IBE) and Urszula Depczyk from the Warsaw Centre for Educational and Social Innovation and Training (WCIES). In this part of the workshop talks on biology were moderated by Urszula Depczyk and from history by Klaudia Starczynowska- Jasik (IBE);
- A summary of the workshop moderated by Urszula Depczyk (WCIES).

Description of sessions (what happened during the workshop)

The following refer to main activities undertaken during the two sessions of workshops.

Session I - Psychological basics of working with a group of education

The workshop was intended to talk with participants on the benefits of group working and collaborative learning. It was facilitated by:

- recall by the participants of their own experience in working in a group and talk about advantages and its disadvantages;
- recall and presenting by participants' examples of their own experience in working with an educational group of: children, youth or adults, while focusing on the most important part of this work, the efficiency of the group, ways of working, moments of difficulties, obstacles and facilitation;
- specify (through group work) what helps and what hinders the work of an education group;
- provide participants effective techniques for working with the group - examples of good practices.

An integral part of the workshop was a short lecture with illustrated presentation on the group process, its development phases, group roles and other relevant information of group psychology. During the workshop, participants divided into groups according to their discretion, first got to know each other, telling where they worked, what they liked to do in their free time, etc. Then, participants shared their experiences of being in a group and working with groups of students. Later they worked on the list of factors helping and interfering the working in groups.

Table 1. What helps and what hinders the working in groups? - based on the statements of the participants of the workshop.

Group	What facilitates	What is the barrier
1	Determination of work rules, determination to work, the opportunity to influence its shape (composition, size, etc.), its integration (task group)	Interference in the work by the teacher, the antagonisms in the group, lack of motivation, inappropriate leader of the group, the inadequacy of time to the task
2	A common goal , a mutual commitment, diversity, mutual acceptance, openness, sharing of responsibility, identification with a group, avoiding assessment	Evaluation, lack of motivation to work, competition, vague or incomprehensible goal, lack of knowledge on working in

		groups, rigid roles, unclear division of roles, overlapping roles
3	A common goal, feeling of the goal of common action, benefits for the group, identification with a group, rules, division of responsibilities, diversity, positive attitude, sense of security, complementarity, creativity, innovation, responsibility, voluntariness	Competition, domination, poor distribution of tasks, free rider problem, the lack of principles and objectives , lack of identification, not sticking to deadlines
4	The integration of the group, clearly set objectives, action plan, the allocation of roles compatible with predispositions, mutual respect, listening to each other, openness to others' ideas, collaborative decision making, enjoying the successes of the group, the ability to resolve conflicts	Lack of those factors mentioned in the column on the left
5	Mutual affection, understanding the division of tasks in accordance with the strengths of participants, an interesting topic of work, commitment , openness to ideas, specified goal, the benefits of its implementation	Lack of communication, labeling, lack of faith in the success of the project, the uneven distribution of tasks, lack of motivation, time pressure, too many leaders / lack of leadership, lack of positive perception of created project
6	Establishing principles of cooperation, selecting the leader of the group, the organization of space, establishing rules concerning the assessment of the final task, selecting appropriate target to a specific group, creating a diverse group in terms of predispositions and skills	No involvement of all members of the group, lack of management skills by the group leader, a general unwillingness to cooperate in a group

From the lists drawn up by the six groups it may be observed that workshop participants agreed on the main factors that help in conducting classes with educational groups. According to majority of participants such supporting factors are:

- Common goals;
- Strong motivation;
- Established principles of cooperation, work and evaluating the results;
- Sense of security , good atmosphere;
- Differentiation within the group;
- Shared responsibility for work results.

What interferes is the lack of elements mentioned above as well as competition, lack of organization, uneven, inappropriate distribution of tasks, the dominance of one or more members of the group. During the presentation of the results of working groups, spontaneously a discussion on evaluation was made - an interesting example of peer review in the group of students was presented. The group received mark 4 for the work done. This value assessment was multiplied by the number of members of the group and it was the number of points to distribute among the members of the group. The group had time to come to a consensus as to the number of points allocated for each member. If you have not been able to work out the final version of the distribution points that you accept, none of group members received any mark. This practical solution was welcomed by participants.

The most important conclusions of the workshop on the psychology of the group are:

1. For the implementation of the work with groups of students' knowledge and skills are required on the mechanisms of governing group;
2. The desire to use this method depends on previous teacher's experience in working in a group of teachers, if they were positive, he will be more interested to use this method in the classroom as his own experience shows the benefits;
3. There are many factors that can be both facilitators and barriers which impede the application of methods and forms of collaboration, including collaborative learning;
4. Important and valuable are practical tips on the use of group work and assessment.

Session II Examples of good practices, the use of group work in the classroom

The objectives of this session were:

1. Analysis of the educational benefits and social benefits from the use of forms of group work in classroom;
2. Analysis of the difficulties and barriers to the implementation of educational activities in the form of a group.

Examples of good practice from the history and biology lessons showing how teachers can work with students using various forms of collaboration combined with different working methods (e.g. different ways of selecting working groups, "wandering poster", group work over the source texts, presentation of results of working groups etc., discussion and evaluation of the members of the working group).

Biology

Session began with a lecture-illustrated presentation, devoted to practical aspects of implementation of the forms of teamwork in the classroom in primary school. The most important message of the lecture was that the working groups should be introduced gradually, leading parallel diagnosis of pupils, their level of knowledge, temperament and socialization openness. They presented the next stages of implementation of this form of work:

- Working in pairs (a pair of students sitting together on a bench at the table who know themselves and like themselves) over a simple problem to solve within a small amount of time (10-15 minutes).
- Working in groups of 3-5 persons, whose composition is determined by the students, over a simple task, the same for all groups;
- Working in groups of 3-5 persons formed by a teacher over a simple problem;
- Working in groups with their composition determined by the teacher or by the students (depending on the needs and situation), with each group working on another piece of the problem. The results of work of all the groups will help to solve the problem.

Part of the session was devoted to the assessment of a working group, whose elements can be a self-learner, peer assessment and evaluation of the contribution of work and commitment by the teacher.

After a short lecture, participants took part in workshops with the use of group work and the method of "wandering poster", jointly solving the problem of climate change and biodiversity conservation. Each group received a sheet of paper with a problem (e.g. increase of carbon dioxide in the atmosphere, which contributes to increased temperature of the Earth). Each group proposed one way of solving this problem or preventing it and forwarded the sheet paper to the next group. The work

ended when all the cards returned to "their" groups. Then, each of the group presented the proposed solutions to environmental problems. While working on the problem, each member of the group could experience the thrill of discussing and setting common position group. During the exercise, an increasing involvement of the group members in the task implementation has been gradually observed, better and more effective cooperation within the groups was noticed, including those groups whose members did not know other each before.

History

Session began with a brief introduction to the topic Battle of the throne, which focused on presenting the social, political, economic and religious context of Polish Republic in the sixteenth century. A specific problem emerged then – whom to choose for the Polish king to serve the country and nation in the best possible way? The group members were asked to get into shoes of the members of the elective commission.

Each group received a set of materials:

- source materials in the form of a series of maps describing the religious, economic, social and political context of the Republic of Poland and descriptions of the candidates,
- a table to fill out the arguments in favor of a preference for a candidate.

At the end, each group was to make the choice of a candidate for the king, giving substantive arguments and presenting a prepared elective speech.

Raised issues. Brief conclusions from the workshop

The information and opinions from the participants were obtained from:

- discussions during workshop
- written statements arising during the performance of workshop tasks in working groups, carried out on paper flipcharts.

Statements and summarizing discussion were recorded.

For discussion, a number of questions and problems was developed and presented to participants during the workshops and during the final discussion.

- Does the Polish education system make it possible to apply the method of the project and work in a group or other forms of collaborative learning?
- Why should we work in a group with students?
- What skills students learn by working in a group? (Soft, e.g. Communication, responsibility / Subject-General)
- Is selection of students to groups important? What method is useful in which situations?
- Is the number of people in a group important? What is the optimal and why?
- How to separate work and materials for the group? (each group should do the same, or share material between different groups)
- How to deal with students who do not want to work / interfere?
- How to summarize the group work in order to evaluate the work of the group? What are the criteria used to assess the work of members of the group?
- How often should we work with students in groups?
- Do you prefer working in pairs or to work in a larger group? Why yes, why not?

- Are you working with students in teams?
- What are the barriers to collaboration of students?
- What facilitates student group work?
- Do you implement the current core curriculum project method, using collaborative learning or another kind of team work?
- Does the organization of work in the school (e.g. 45 minutes lessons) promotes or hampers the working method of collaborative learning?

The summarizing workshop discussion was devoted to collaborative learning and cooperative learning and their use in the school environment. The discussion referred to:

- legal system,
- organizational conditions prevailing in schools,
- advantages of working in groups,
- barriers to the application of the teamwork in classroom.
- good practices on specific solutions in the application of teamwork - the selection of members of the group, no motivation to work in a group, assessing pupils working in a group etc.

While moderating discussion, a reference was made to the list of questions posed at the very beginning.

Voices in discussion – examples.

At the beginning of the discussion the participants referred to their experiences during workshop work. Everyone agreed that group activities brought them closer together, that they worked well and effectively, that they were able to communicate agreed work results, that they got to know each other.

> *Good co-operation, lots of excitement, an opportunity to look at what the election was like...*

> *Working in a group one could discover who had what skills, which contributed to the teamwork...*

> *It is important that the topic is intriguing, attractive...*

> *Teachers are obliged to teach teamwork, they should teach it from the very beginning and not just in junior high school.*

> *The problem is that teachers do not know core curriculum.*

> *Teachers want to ensure the safety of the core curriculum implementation and wrongly believe that the implementation of the textbook will ensure them the implementation in full. In contrast, textbooks generally contain more content than the core curriculum, and may not contain some elements. It is worth encouraging teachers to work on the core curriculum and to get to know it.*

> *School principals rigidly organize schoolwork, regulations are flexible enough for allowing another classroom organization, but are misinterpreted.*

> *45-minute lesson system is an obstacle for CL. However, those are school principals who decide how long the lessons last, they can make the lessons in teaching blocks, but then they have to settle the teaching time in this 45-minutes system and report this way to the supervising entity.*

> *It is good to plan your work in the group, you can always ask to set the lessons in teaching blocks.*

> *Do not worry about the core curriculum, because the knowledge and skills that the student learn is broader than the curriculum, the teacher knowing the curriculum does not have to limit the student only to its content - in teamwork we put more emphasis on learning objectives and smaller on content as the development of students competences really matters.*

In Poland we also observe bad practices, as teachers keep the students silent, wrong construction of teamwork groups is observed, unequal work involvement of students – so how to assess their individual contribution later?

You need to know the children before they start working in groups, so it is important to diagnose children.

Let's start with work in pairs first, then in groups.

In groups of minor children some do not participate at all, they stay aside, even for a whole year.

As somebody else is a leader, he/she does the whole job. You need to be able to include these children in teamwork.

If we are to teach teamwork, then let's also evaluate teamwork.

It is good to appreciate a student who has managed to overcome some of his or her inability, to appreciate withdrawn or dysfunctional pupils. It is a good idea to appreciate pupil who has succeeded in communicating with another one.

In classes with big number of students, the teamwork makes it easy to work in general.

A quiz prepared by the groups can be used to summarize the work of the group.

Workshop 2

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

On March 6 2017, the second Co-Lab workshop on CL, entitled New approach to learning and teaching in the group, took place. 53 people took part, including representatives of schools of different educational levels, as well as consultants and teacher advisers. Among the participants, there were persons who did not participate in the MOOC training, so some of the presentations and discussions were devoted to the concept of Collaborative Learning.

Objectives of the workshop

The objective was to show how the CL can be implemented in everyday school practice, basing mostly on information and knowledge gained during the on-line training.

Agenda of the workshop

- 10.30-11.00 - Welcoming the participants, presenting the results of research on teaching and learning by CoLab co-operation - Agnieszka Rybińska, Małgorzata Zub, IBE
- 11.00-11.45 - Innovative approach to group learning - how can they be used in practice - Urszula Poziomek, IBE, Ewa Pyłka-Gutowska, MSCDN, Katarzyna Korzec, School Complex No. 1 in Szprotawa
- 11.45 - 12.05 Creating conditions for interaction in the school community - example of good practice, Marek Tarwacki, School Complex in Łajska
- 12.05 - 12.15 - coffee break
- 12.15 - 13.45 - Group roles in collaborative learning (workshop) - dr Dorota Sobierańska, dr Małgorzata Sieńczewska, WP UW
- 13.45 - 14.30 Teamwork in a group with diverse educational needs (workshop) - Beata Rola, MSCDN
- 14.30 -15.00 Discussion and summary - Dr Dorota Sobierańska, WP UW, Klaudia Jasik, Urszula Poziomek, IBE

Description of sessions (what happened during the workshop)

The workshop, opened by Agnieszka Rybińska, coordinator of the Polish part of the project, was conducted by participants taking part in the Co-Lab project from the very beginning, who took part in the on-line training on collaborative learning:

- Dr. Dorota Sobierańska and Dr. Małgorzata Sieńczewska from the Faculty of Pedagogy at the University of Warsaw, who led a workshop session on group roles,

- Ms. Urszula Poziomek from IBE and Ms. Ewa Pyłka-Gutowska from MSDN, who, referring to the materials and knowledge gained on the training platform, showed differences between CL an the group work and stressed the importance of teacher competence in this process.

- Ms. Katarzyna Korzec from the School Complex No. 1 in Szprotawa, who presented an English language lesson scenario meeting the criteria of CL, emphasizing the importance of delegating responsibility for the results by teacher to students.

- Ms. Beata Rola, MSCDN consultant, who conducted a teamwork workshop on lesson scenario addressed to a group of students with special education needs

 Mr Marek Tarwacki, long-time director of the School Complex in Łajskie, spoke about the importance of leadership in creating an atmosphere facilitating the cooperation of teachers and students.

Ms Viola Pinzi, coordinator of the whole international project, took part in the meeting, together with Ms Małgorzata Zub from IBE presenting the results of the benchmark survey.

During the workshop, lesson scenarios inspired by the materials obtained from the online training were also presented.

Benchmark survey results of research on CL teaching and learning within the Co-Lab project

Mrs Małgorzata Zub presented selected results of a benchmark study carried out among 350 project participants from 5 countries (Austria, Belgium, Ireland, Portugal, Poland) before training on the MOOC platform took place. The study was designed to diagnose the level of participants CL knowledge and to get acquainted with their opinion about this method. The presented results covered both the specific perception of CL by Polish teachers and decision makers as well as the comparison of Polish population with teacher groups from other European countries taking part in the project.

The results indicate that the theory is quite well known among Polish teachers, however not popular in practice. Feedback on the CL method is also predominantly positive - respondents also agreed that learning by collaboration is best associated with the project method. Respondents also drew attention to the benefits of using CL - greater motivation for students to learn, developing the social skills needed on the labour market. It is interesting to see a significant difference in the perception of educational law and work organization in schools in the context of the use of CL between the group of Polish teachers and the group of decision-makers - teachers assess the opportunities rather low, decision-makers believe that educational policy facilitates CL. Such a significant difference was not observed in any other studied population.

Respondents also pointed out several important barriers to CL in schools - including difficulty in assessing individual input into teamwork, free-rider attitude of some students, or introducing changes in the education system that do not support teachers using innovative teaching methods. Also, most respondents - mainly teachers - rated their competence in terms of CL teaching rather on an average level. The study also showed the unpopularity of student self-evaluation and peer assessment among Polish teachers. These forms of assessment, so important when using CL, are not often used.

What is the difference between collaborative learning and working in a group?

Ms. Urszula Poziomek presented 4 distinguishing features of CL among other methods and forms of student's teamwork, which are criteria that allow the teacher to assess the compatibility of what methods she/he uses with CL. She thus compared the standard CL work, focusing on the role of teacher, educational goals, initiative, and responsibility for group work and developing social competencies. She also noted the importance of student self-assessment and peer assessment in building responsibility for learning outcomes and enhancing collaboration.

Teacher competence in CL work

Mrs. Ewa Pyłka-Gutowska presented the basic problems that make it difficult to engage in cooperation among teachers: competition, lack of peer help, feelings of danger caused by low self-esteem and lack of trust in others. The challenges for a teacher who wants to use CL are:

- Change the role of the teacher,
- Knowledge of the rights and dynamics of the functioning of the group,
- Ability to evaluate the work of the group and its individual members,
- Group management skills.

Mrs. Pyłka-Gutowska also drew attention to the ability to reorganize class space and to combine issues divided into different subjects (interdisciplinary teaching), while emphasizing the benefits of collaboration - both in the teachers' team and in the students' teams.

Group roles in collaborative learning

Dr Sobierańska and Dr Sieńczewska led workshop on group roles. The first exercise was to consider (in the group) what characteristics are typical for individual group roles such as leader, outsider, passive observer, evaluator, etc. The next step was to compare the performance of the group with the exercise suggestions and discuss possible differences of views. After reviewing the characteristics of group roles, the participants went through practical exercises on recognizing defined group roles played by individual members of the group in the films. The next stage of the workshop was a drama that showed directly what and who was needed to be able to accomplish a specific task together. Finally, the participants confirmed that each person, with her specific qualities, advantages and disadvantages, is needed in the group and the tasks she performs allows to achieve the best possible group tasks and the purpose of group activities.

Teamwork in a group with special educational needs

Ms. Beata Rola, MSCDN consultant, has prepared an interesting workshop that combined the development of creativity and teamwork skills. The classes started with the use of mobile phones to get information on the mysterious island of MAN ... It turned out that this is a very interesting place on Earth (geography), where there are no speed limits on the road and in which live unique cats without tails. On the basis of information about the island Man, the trainer built a course of activities during which the participants created new cat tails, gave names to their imaginary cats, but also searched for and reflected on gained information about the mutation that caused the lack of tail in cats from the Isle of Man (biology).

Another element of the exercise was the creation of a crime story based on a fingerprint and verification of the perpetrator's hypothesis based on found evidence (a research method).

Most of the activities were performed by the participants in groups and the group roles emerged in a spontaneous way. During this short but intensive workshop they were able to combine and use such valuable educational elements as ICT, inter-disciplinarity and learning through collaboration

Descriptions of (the most interesting) good practices in CL, if they were shared during the workshops

English speaking countries - what do we know and what will surprise us? - lesson scenario

Ms. Katarzyna Korzec, an English teacher at the School Complex No. 1 in Szprotawa, presented the lesson plan she had prepared as a part of the MOOC training. The scenarion received a high peer review due to, among other things, a large compliance with the CL method. Ms. Korzec emphasized the importance of shared responsibility of pupils by delegating to them practically all tasks in the project. The role of the teacher according to Mr. Korzec is supervision over substantive, linguistic and compliance issues according to established rules and deadlines.

Creating conditions for co-operation in the school community - an example of good practice

Mr. Marek Tarwacki, the director of the Łajska School Complex, stressed the role of school principal in creating a collaborative atmosphere, both between teachers and among other groups that make up the school community - students, parents, administrators and school staff. He emphasized the importance of all groups forming a school - not only in the didactic but also in the administrative sphere.

A good leader makes a decrease in the level of competition and a growth in the level of cooperation and collaboration, he said. Mr. Tarwacki also drew attention to the lack of trust, which is observed naturally between decision-makers and teachers, teachers and students, teachers and parents of students or director and his/her teachers.

Presenting his experiences as a leader, he pointed out that the most important school person is the student - the teacher should follow the student, behind the teacher - the school principal. In order to follow the student, the teacher - with all his talents and limitations - must be competent in many areas, not just the subject he teaches. If school principal wants to evaluate the teacher's work, he does not observe the lesson, but assesses the work of teachers looking at the progress and achievements of their students. There is only one school document in the Łajska school - a school diary. Thanks to this, they do not lose time for unnecessary bureaucracy, devoting the time entirely to students. He stressed that there are no cooks and teachers in the school team in Łajski - there is a team working for the school and pupils learning in it. There are also two orchestras in school - brass and percussion, played by students and graduates. Its membership teaches co-operation and responsibility for achieving common goals. There is also volunteering activity in the school. For Mr. Tarwacki, it is extremely important to work with parents; he believes that parents are the greatest and most important experts of their children. That is why he works very closely with his parents, listens to them and supports their ideas. He also paid attention to the fundamental – students observe both teachers and school management. If there is no cooperation and collaboration among them, it is difficult to spread this form of learning among the students.

Raised issues

The discussion was led by Ms Dorota Sobierańska from WP UW and Ms Urszula Poziomek from IBE. Participants discussed, among other things, the real possibilities of implementing CL in school practice. The discussion showed that teachers introduce many elements of CL in classrooms and also in the implementation of educational projects, i.e. in junior high school. Teachers implement their ideas in

classrooms, they are not always consistent with the content of the core curriculum, but they pursue their learning goals. Often, the initiators of such unconventional interactions are parents - especially in early school education, where it is easier to learn CL because of the interdisciplinary nature of one-teacher education.

Participants also stated that the introduction of this kind of innovation to the school depends primarily on people, on their enthusiasm and dedication. Very important role in this process is the role of young teachers or the trainees, who usually have more new ideas, they also have a different, fresh look at school reality than the teachers working there every day. External persons entering the school have a new look and can bring fresh air into the work of the pedagogical council. Differences in age and experience also give a chance for development - teams of teachers with different age and backgrounds are perceived as more creative and cooperative.

Mr Helie, a primary school teacher, said that once in a semester he introduces design work in 4 groups. At first, there was a problem with parents who were not satisfied that part of the work students had to do at home and in consultation with other teammates. It was only after a time that the parents observed obvious benefits of this form of work for their children - primarily through greater involvement in science and the development of social competence - primarily through communication. Projects are implemented in the long run, divided into stages, each stage ends with a summary of the work and its evaluation. In the initiating phase, students themselves split into groups, now they are randomly assigned to a group. Students evaluate each other and evaluate themselves. They come to the assessment seriously, they have a sense of responsibility for the assessment, they also believe that both forms of evaluation are a very important supporting tool.

Another topic discussed was the role of ICT in CL teaching, in particular whether or not ICT supports the development of social competences. In the opinion of a large group of participants, the ICT use rather supports, develops, facilitates the access to information on a regular basis, also shows the dynamics of the process of training or learning.

The European Schoolnet platform was found interesting and informative. The exchange of opinions and views was very dynamic and it was possible to find out many interesting things about European schools from teachers from different countries. For example, one participant was surprised to learn that very detailed lesson plans are required to be developed in the UK.

As a disadvantage in using ICT, participants identified the lack of intuition character of the training platform, the technical difficulties that sometimes appeared and the limitations resulting from insufficient English proficiency.

Facebook, which ran parallel to the platform during the two-part Polish- and English-language training, was not frequently visited by Polish teachers. However, there are several people who have established international contacts and exchanged information. One participant of the project said that now that she saw the faces of her colleagues and trainers on MOOC she felt a member of the CL community, knowing whom she would write to on Facebook. Therefore, a face-to-face workshop is needed to get to know each other personally - the platform itself and Facebook is not enough.

Mr Sobierańska – one of the workshop speakers - discovered ICT tools placed on the platform that she considered very useful and would use them to work with students.

Another problem, discussed in the discussion was self-evaluation and peer evaluation. Teachers use these forms of assessment mainly in junior classes, but also - although rarely - in upper secondary

schools. It was emphasized that in case of older students teachers allow students to express themselves, encourage the substantive argumentation of the assessment, and not just give marks.

From the participants' statements, it is much easier to use these forms of assessment in younger age groups than in higher education stages, mainly due to time constraints - at primary school there are 3 hours per week with pupils at least, but only 1 hour a week for given teaching subject in upper secondary school. In this situation, it is difficult to devote time to self-assessment and peer assessment.

The representative of the Education Board in Bydgoszcz reminded that since 1 September 2015 all teachers are obliged to students feedback as a part of the assessment of the educator. Teachers know about this, but it is very general and differently detailed in school statutes.

In the summary of the discussion, the moderators summed up the participants' comments and encouraged them to participate in the subsequent project workshop. Mrs Poziomek appealed to a number of people who completed on-line training to present the results of their work during the third workshop in June.

Workshop 3

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

The final workshop was a seminar where people from different backgrounds and education stages shared their experiences on CL in practice. There were 43 participants, including - as in previous meetings - teachers, advisers and consultants, as well as future teachers and academics of several higher education institutions educating future teachers.

Objectives of the workshop

To share good practices and ideas stemming from the implementation of the project.

Agenda of the workshop

The meeting consisted of two sessions: Experience in Implementing CL in classrooms and Group Work Assessment and Individual Assessment.

The first session was devoted to practical activities undertaken during the project, good practices in applying the Co-Lab method in school and academic practice, or in the development of professional development of teachers. The second included sharing of experience, research results and analyzes of students 'or students' assessments in Co-Lab classes.

Description of sessions (what happened during the workshop)

Session I

The lecture by Mr Błażej Helia, a biology teacher in primary school in Warsaw, started with a brief introduction to the use of CL on map orientation. Then the participants were divided into groups and each group received a task to be performed in the outside area of the Institute building. The facilitator supported each of the groups in its implementation, defined the time of the task and the way of communication between participants and himself as the teacher. All groups performed their tasks at the appointed time and after a return to the workshop room, a short summary was made. While working in the group, the participants interacted and were co-responsible for the proper performance of the task. As noted by participants, it was very important in this exercise to show that collaborative learning does not have to involve a long time, and can be applied in one 45-minutes lesson.

Ms. Sylwia Bloch from teacher training institution in Rybnik presented the provisions of the revised core curriculum and other current educational acts, addressing the cooperation of students and teachers. Then she showed many examples of good practice from different stages of education - from kindergarten, primary and junior high school to upper secondary school, as well as examples of CL in vocational education. According to her, there was no age restriction on the Co-Lab method, although it is easier to use it in early school education because of the smallest content of curriculum (it is not so overloaded as at later stages of education).

Ms. Paulina Rozmus from the EduLab Primary School in Stare Babice pointed out the need for teachers to cooperate, what itself is a good example for students taking this learning method as natural and obvious. Like the desire to study the surrounding world, a positive attitude to collaboration is somehow encoded in the behaviour of children and the task of the school is to reinforce this tendency and above all not to destroy it by introducing excessive competition among students.

Mr. Marzena Dzuman and Agnieszka Staszewska from MSCDN presented the use of learning based on collaboration in the teacher-training group of reading education. Participants in the training were teachers of pre-school education, early school education and teachers - librarians.

The trainers used the Co-Lab design as well as the self-assessment card for the preparation of this training, based on the Co-Lab model on the MOOC platform.

The speakers have shared a few reflections after the training:

- Group interaction required a great deal of mindfulness on the part of the trainer, as the trainees tended to work individually;
- Participants expressed their satisfaction with the use of collaborative learning training;
- Participants assessed the task they were to perform as easy and at the same time very engaging all of the participants in the group work;
- It was of great value to be able to attend and observe the final effect of the collaborative activities - the Kamishibai Picture Drama prepared by the various groups.

Session II

Session II was opened by students of the Faculty of Pedagogy of the University of Warsaw, Mr. Aneta Dyszlewska and Kinga Mańkowska, who presented the results of a study conducted during student practice in Warsaw primary schools. Their presentation treated on the difficult art of self-assessment on the example of selected teaching situations based on the CL of pupils in early school age.

The authors formulated the following research questions:

- How do third-grader students perform self-evaluation after work in groups?
- What are peer evaluations?
- What regularities can be observed when comparing self-assessments and peer assessments in a group?
- To what extent do self-assessments and peer assessments are coherent/vary from the student observer ratings?

The author used tools in the form of peer review cards, self-assessments and activity observation charts. They presented the results of the study and formulated their analysis and the conclusions:

- Approximately 30% of the students rated the results of their work the same as assessed by their peers.

- Other self-assessments, compared to peer evaluations, were more frequently overestimated.
- There is no regularity in the differentiation of peer-to-peer assessments in specific groups, depending on the sex, and the differences in the peer-to-peer assessment of a person's work are due to the sociometric structure of the class.
- On the basis of the comparison of observation results and self-assessment and peer-reviewed tables, it can be concluded that some of them were filled with sympathy and antipathy.
- Assessing one's own work and the other's work is a task that requires constant care for the teacher and the organization of the development process of students' skills.

Mrs Teresa Stryjewska from the Faculty of MSCDN in Ciechanow presented very interesting, richly illustrated photos and videos presentation on CL and formative assessment in group work. She presented the goals and the course of the project she completed with the students of the upper secondary school in Ciechanów during chemistry classes. The aim of the project was to learn how to use formative assessment and collaborative learning.

The project was attended by, among others, selected students in the role of experts assessing according to accepted criteria of success teamwork of colleagues. The experts together with the teacher planned a series of chemistry experiments to be performed in groups of other students in grades II and III. Criteria for the evaluation of the work were the criteria of success, namely:

- Planning and organization of work (group management, roles: leader, secretary, rapporteur, team member);
- Communication (understandable leader's instructions, careful listening to each other);
- Problem solving, tasks (conducting experience according to instructions, formulation of observations and conclusions).

After establishing and presenting the evaluation criteria, the group of students performed chemical experiments, and afterwards received feedback from the experts and self-assessment of group work and peer evaluation using tools from the course on the MOOC platform. When assessing the peer group work, the following criteria were considered:

- How did the team leader (whether democratic or authoritarian) emerged?
- Was there a division of tasks, or did one person do everything?
- Did the team members work together during the experiment?
- Was there a person who did not contribute to the team?

Self-evaluation focused on success, elements needing improvement and tips on how to do it and to continue working. Example of self-assessment of the student group:

- What we did in the project:
  o Effectively collaborate in project teams.
  o Did not blow up the school while doing experiments.
- What we still have to work on:
  o Over-performing design tasks on time.
- How to make these changes?:
  o Take a shared schedule, actively participate in meetings, do not waste time talking to teachers.
- Recommendations for further work:
  o Work smarter, not harder!

Mrs Agnieszka Bujno, Klaudia Kubiak, Marta Tierentiew, and Aleksandra Czarnecka, students of WP UW presented results and conclusions from the study titled "Evaluation and group roles of student task forces". The study identified the following research problems:

- What group roles can be observed most often during the work of small student teams? Are these roles repetitive? Is there a relationship between the way in which teams are grouped and the process of assessment in CL?
- What are the ways to create groups for academic purposes? Is there a link between the way the groups are formed and the quality of self-assessment and peer evaluation presented by their members?
- What other factors can affect the quality of assessing one's own work and the work of other groups in academic activities based on collaboration in task forces?

The authors presented the results of the study and the conclusions:

- During the observation of collaboration in small student task teams, the role of the outsider and devil advocate was most often seen as the leader and ordinary performers.
- Some students took the same role in different bands, whether in the observed situations the process of emergence of group roles was natural or the academic teacher asked students to take roles other than the usual roles in the team.
- Regardless the way in which team roles are played, the leader's position on self-evaluation and peer evaluation was most often presented by the leader, although in the case of self-determination of team roles by group members, there were occasions where self-assessment and peer evaluation were involved.
- Task teams were most often created in an arbitrary, spontaneous way, but the composition of the team rarely appeared other than before; The most common determinant of the formation of the ensemble was the limited space in the hall (the students formed teams from the closest occupants);
- Very rare was the use of random selection or matching based on the interaction of people with similar or different skills.
- There was no relationship between the way the band was formed and the quality of self-assessment in a verbal manner in all groups - regardless of the way the team was formed, the leader of the team was generally under the collective contribution of all participants in the task regardless of the observed facts.
- The evaluations presented were undifferentiated, often without suggestions, which could be improved, and sometimes more representative of the group's common position than those relating to previously agreed evaluation criteria. The written and anonymous peer review was more effective in this regard - after the presentation of the results of all the teams, the students were free to move around the room and individually wrote their comments, tips and thoughts on each group's papers.
- Other factors that may affect the quality of assessing one's own work and working in other groups are:
  o number of groups created during classes,
  o number of members of individual groups and their composition,
  o student experience in the systematic application of self-assessment and peer evaluation,
  o the use of pre-determined criteria during peer evaluation and self-assessment of teamwork (increases the effectiveness of this process, but in some cases may limit creativity in task performance by the group).

Mrs. Elżbieta Miterka together with the team - academic staff from the Public Higher Vocational School in Chełm, presented the presentation, also richly illustrated in photos and films entitled "CL assessment methods". They also conducted short workshop sessions. Miterka presented the theoretical basics of assessment and tools for evaluating group work, such as checkboxes, boxes, thought maps, power fields, wind rose, timeline, comments-comments Scribbling, analogies or triplets, as well as ICT tools that can be taught by interaction: AnswerGarden, QR, MindMap, Scrumy, Kahoot, Padlet, Trello and Lino. Then a video of classes with students was shown, which used both interpersonal exercise and self-assessment and peer assessment tools.

Ms. Małgorzata Zub from the Educational Research Institute presented another dose of data from IBE's benchmark study conducted in the Co-Lab project in a presentation entitled "Factors influencing effective teaching and assessing students' interactions". Mrs Zub presented several important issues and related opinions of project participants from different countries participating in it.

- What is learning by interaction?
  o Positive effects of learning by interaction
  o Applying Co-Lab at school and university in the eyes of teachers and researchers and teachers of teacher development
  o Factors relevant for the application of CL in the opinion of project partners from different countries.

For example:

- In Poland and Portugal, learning through collaboration is closely associated with the project methodology;
- Representatives from all countries recognize that interdependence is essential in CL;
- The most important effects of CL are, in the respondents 'opinion, learning from each other, learning to take into account others' opinions, increasing student interest in learning content, better learning outcomes, also for students with special educational needs;
- In Poland, the teachers and staff of vocational training centers strongly disagree about the presence of factors facilitating the use of CL in schools - particularly in terms of program curricula, educational tools, external examinations and training systems, and teacher development materials;
- Among the factors important for CL use are: time needed to learn how to collaborate, but also to use it in the classroom, involvement of the director and the whole team of school teachers, recognition of the needs of students and their parents, interaction of teachers with each other, including interdisciplinary activities, parents involvement in school activities, classroom arrangement facilitating the work in groups.

Descriptions of (the most interesting) good practices in CL, if they were shared during the workshops

1. The lecture by Mr Błażej Helia, a biology teacher in primary school in Warsaw, started with a brief introduction to the use of CL on map orientation. Then the participants were divided into groups and each group received a task to be performed in the outside area of the Institute building. The facilitator supported each of the groups in its implementation, defined the time of the task and the way of communication between participants and himself as the teacher. All groups performed their tasks at the appointed time and after a return to the workshop room, a short summary was made. While working in the group, the participants interacted and were co-responsible for the proper performance of the task. As noted by

participants, it was very important in this exercise to show that collaborative learning does not have to involve a long time, and can be applied in one 45-minutes lesson.

2. Ms. Paulina Rozmus from the EduLab Primary School in Stare Babice pointed out the need for teachers to cooperate, what itself is a good example for students taking this learning method as natural and obvious. Like the desire to study the surrounding world, a positive attitude to collaboration is somehow encoded in the behavior of children and the task of the school is to reinforce this tendency and above all not to destroy it by introducing excessive competition among students.

3. Mr. Marzena Dzuman and Agnieszka Staszewska from MSCDN presented the use of learning based on collaboration in the teacher training group of reading education. Participants in the training were teachers of pre-school education, early school education and teachers - librarians. The trainers used the Co-Lab design as well as the self-assessment card for the preparation of this training, based on the Co-Lab model on the MOOC platform.

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Raised issues

At the end of the seminar a discussion and summary was made in the form of further recommendations. The topic of the discussion was the question *What to change in order to teach CL in school practice more effectively than before?.* The discussion was moderated by Dr. Dorota Sobierańska from WP UW and Urszula Poziomek from IBE. The recommendations from the discussion are presented in the final CO-LAB recommendations section.

2.5.3. Results of the workshops and of the project

Understanding of collaborative learning

How did participants understand CL?

Most of them identified CL as a work in groups, however with different role of a teacher and student in the process. Only few really used the verb collaboration instead of cooperation of students**.**

What changes were there to the understanding of, opinions about, and attitudes towards CL across the 3 workshops (before, during and after)?

What differences (if any) were there in the opinions and attitudes towards CL between teachers, teacher trainers, head teachers and authorities?

Partners of the IBE in the implementation of the CO-LAB project were the following institutions:

- Mazowieckie Samorządowe Centrum Doskonalenia Nauczycieli (MSCDN);
- Warszawskie Centrum Innowacji Edukacyjno-Społecznych (WCIES);
- Faculty of Pedagogy, University of Warsaw (WP UW).

The task of the partners was to implement the idea of teaching and learning through collaboration in activities directed to teachers (MSCDN and WCIES) and students - future teachers (WP UW).

As regards MSCDN, the implementation of the activities also made it possible to formulate some conclusions and reflections on both the project and the CL method.

- The project was extremely inspiring and open to new ways of assessing students in group work.
- The project has developed the IT and communication skills of teachers, while providing the opportunity for international exchange of experience.
- Participation in the project has reinforced the knowledge of collaborative learning and has provided teachers with new techniques for assessing group work.
- Project participants have obtained a list of standards that guarantee high quality of group work.
- The project gave the opportunity to broaden the MSCDN training offer to include elements such as CL, the use of ICT in the teacher's work.
- Participation in the project has shown how difficult but effective on-line learning can be - preparing for on-line training should take into account the different levels of teacher skills in using ICT.
- The project showed that a significant barrier to the implementation of EU projects, where the leading language is English, may be the lack of proficiency in English.
- The lack of monitoring of the implementation of MOOC tasks could have led to the lack of systematic action by some teachers, which in some cases had ceased to be part of the training.
- The authors of the report also formulated recommendations for further promotion of CL teaching by MSCDN: delivering the ideas and results of the Co-Lab project to other MSCN consultant teachers in order to integrate CL with the ongoing training offer of the centre.
- Increase the number of in-service training courses on the use of ICT in teacher work.
- Inclusion of teacher self-evaluation techniques in group work for many training sessions, including those that go beyond collaborative learning.
- Creation of an international cooperation network that uses the theme of the project, with particular focus on Eastern European countries.
- Training of consultant teachers on the standards of on-line training organization.
- Include information about the project and its results in the quarterly publication issued by MSCDN.

Warszawskie Centrum Innowacji Edukacyjno-Społecznych (WCIES) is an educational institution, whose activities include the organization and implementation of methodological advice, the support of teachers and school and educational directors, the introduction of systemic education and education

solutions and the promotion of educational and social innovations. Twelve biology teachers working in different types of schools in Warsaw and a WCIES geography consultant were invited to take part in the Co-Lab project. The teachers and methodological advisers who participated in the project actively participated in workshops, as well as on-line training, aimed at presenting interesting solutions for planning and conducting classroom activities with the use of teamwork. Teachers conducted classes in their schools with their students, and methodological advisors took part in in-service training with teachers using project-based learning materials, including lesson scenarios and video films. Each teacher conducted at least a dozen classes using a teamwork form depending on the school conditions, class size, and subject matter. Methodist advisors have been employed in task teams at all methodological workshops for biology teachers and in on-the-job training. Teachers gradually implemented the form of teamwork.

At first, they offered pairs of students a job. Only after better recognition of students needs they presented the problem classes to solve in groups. In each case, the students were randomly divided into groups of 4-5 people using a variety of selection methods. Some teachers also allowed students to form groups themselves in classes where this form of work was already used many times. First, the task of the students was to set up cooperation rules (role-sharing or co-ordinated cooperation at the group level) and then to perform tasks. In most cases, students used their own ideas for the task, and the teacher was a supporter. Teachers planning to attend classes had to consider the time needed to present the results of each group's work and jointly formulate the conclusions.

The greatest success in using group work in classrooms is to increase student interest in problems solved jointly in class. This results in a greater interest in searching for knowledge from different sources and learning a particular topic (especially by students with disabilities or students with lower learning outcomes). Each subsequent work in a randomly selected group teaches mutual co-operation between students who do not, or rarely interact, in other circumstances. It undoubtedly teaches them to cooperate in conditions that are sometimes difficult in their beliefs and can generate conflicts and reinforce antagonisms between students if lessons are not properly summed up and the resulting emotions are named and explained.

All project participants agreed that the greatest difficulty for the teacher was to assess the contribution of each student's work to the final result of teamwork. It is not always enough to have your own teacher observations or peer feedback from the task force members. It was emphasized that students working in teams often have a problem with respect and consideration of the opinions of other members of the group, objective evaluation of the work of the rest of the team, and motivation of those students who were too poorly engaged in teamwork, did not perform their tasks in due time and at the right level, which affected the end result of the whole group. Teachers, who rarely used this form of classroom work, reported that the biggest problem for them was to properly plan classroom activities, appropriate lesson schedules and time frames for each task. There was often a lack of time for self-assessment or peer feedback and for providing individual feedback on the work of the group and each student.

Based on the implemented activities, the following conclusions can be drawn:

- The CO-LAB project opens up new opportunities for teachers to collaborate in classrooms, which is widely seen by teachers as difficult to implement.
- Effective workshops are organized in such a way that they are organized and co-ordinated, where each student is an important link in the chain of common goals. These activities are not

limited to working in a group, but rather as an example of collaborative relationships, which is not easy to achieve.

- Working in teams has had a great impact on the attractiveness of lessons, especially science, and thus more effective acquisition of the core curriculum from this subject.

As far as Wydział Pedagogiczny Uniwersytetu Warszawskiego is concerned, first and second year undergraduate students in the field of pedagogy of young children, pre-primary and early childhood education and pre-primary and early childhood education with early English teaching were informed about the objectives of the project, the principles of its organization and requirements for participation in the workshop, on-line training and other design tasks. As a result of the meeting, 14 students of the aforementioned specialties reported their willingness to participate in the project. During the project some of them have resigned, new applications have appeared. Finally, the project was completed by 9 people.

They took part in:

- Three workshops taking place at IBE premises;
- On-line training organized on the MOOC platform;
- On-line discussions on project topics,
- Evaluation of the impact of the project on early childhood education and academic education,
- Development of the feedback on the use of acquired knowledge in practice.

Students participating in the project gained knowledge about the theoretical foundations of collaborative teaching and learning as well as they collected their own experiences and reflections on training and practical implementation at school and university based on their skills in their Project Logs (www.padlet.com). They described in them the substantive issues of the training, which turned out to be significant for them, worth putting on the Padlet and giving critical reflection. Among these important contents were:

- Learning, including the creation of small task groups, pursuing a common goal, based on positive interdependence and individual responsibility for the process and the effect of work (somewhat less), putting a learner at the center of educational activities;
- Collaborative teaching-learning outcomes, including facilitating knowledge acquisition and interpersonal skills development;
- Planning activities and their evaluation using the Learning Activity Rubrics;
- Planning activities using the Learning Designer;
- Group work assessment, including assessment categories, current and summative assessments, group and individual assessment - peer and self-assessment;
- Cooperation of teachers in school.

Some of the students - participants of the on-line training also paid attention to issues such as a facilitator, the use of modern technology in task group work and collaboration, and the use of tools to evaluate work in groups. A special, extremely valuable element of student participation in the Co-Lab faculty was additional research projects, planned and carried out under the guidance of faculty tutors. Based on the theoretical knowledge gained, the students developed a methodological basis for research activities. Empirical data was collected during school activities (with students in grades I-III) and in the Pedagogical Faculty (students of second and third year of first cycle studies and 1st year of second cycle studies). Subsequently, the students subjected the collected material to analysis and

interpretation, and drew theoretical and practical conclusions, producing test reports. Topics of conducted research activities were:

- *On the difficult art of self-assessment on the example of selected learning situations based on the interaction of pupils in early school age (2 people)*
- *Ways of a nonverbal teacher communication in a collaborative teaching-learning organization (3 people).*
- *The use of teaching-learning based on collaboration in academic activities (4 persons)*

Study 1 was on self-assessment of class III pupils, the characteristics of peer evaluations and the convergence of these two types of assessments with the student observer assessment.

Study 2 was devoted to the nonverbal teacher communication including vocals, linguistic sounds, motivational behaviours and the teacher's awareness of their use.

In the study, 3 students observed group roles in small student teams and the relationship between them and the process of evaluation in the work, the ways of grouping and its relationship with the quality of self-assessment and peer evaluation and other factors influencing teamwork and reliable peer assessment.

At the end of the project activities, students were asked to evaluate the project in the form of completing unfinished sentences. The examples below show that they perceive the need to make a wide use of CL teaching-learning in teacher practice, and treat the method as valuable, especially for students. In the opinion of students, group work increases the autonomy of learners, raises their involvement in work, and thus helps them to acquire knowledge and skills more effectively. It should therefore be applied on a larger scale in the everyday practice of schools of different levels. The students paid special attention to the Learning Activity Rubrics, helping to plan student work in groups and assess their level of interaction. Evaluation processes are extremely important elements of the method, but they seem to be the most difficult to implement, especially for those preparing for the teaching profession.

Examples of students' statements - project participants (method of completing unfinished sentences):

<u>Participation in the project convinced me that...</u>

Collaborative work can be effectively used in school. It seems to me that this is a good direction in which education should go, as it creates a community of students and teachers learning important skills today. First and foremost, however, it allows for more efficient use of time in lessons. The process of common learning of learners positively influences their sense of greater autonomy in the process of acquiring knowledge, and thus learners are more willing to engage in action. It requires the well-thought and coordinated action of schools, teachers and students.

Working in groups allows for more effective learning than traditional teaching.

The form of group work should be used as often as possible in the education process.

This is the method by which I want to work in the future.

<u>The biggest discovery was for me...</u>

That cooperation and collaboration are not the same.

The rubric method, which is to determine the activity of the students. Determine whether pupils work in pairs or groups, whether they share responsibility or make substantive decisions about whether their work is interdependent. Answering these questions, the teacher can determine the level of student

interaction. I think this is an interesting proposition, especially for young teachers. It can help them to prepare interesting and valuable lessons. I was also interested in the interesting form of scenario divided into different phases of group work (dream, explore, map, create, ask, process, show). This is a valuable tool that can help you plan your activities in a clear way. Lessons learned under this scenario need to be included in the lesson. Discussion, self-evaluation, peer evaluation, presentation of the final product.

How can you combine the ideas of learning based on the interaction with the daily practice in school. I think that participation in the Co-Lab project has changed my perception of what a collaborative learning really is, and also made me aware of the educational situations in which pupils are really active.

That assessment is such an important element of the didactic process.

To become aware of the essence of the educational space and how to plan the activities in such a way that the majority of the time is allocated to the activities of the students connected with the interaction. Another remarkable observation I have made is the enthusiasm of the students and their accompanying teachers. In addition, I was surprised at the ways in which teachers work in foreign institutions, both in terms of indoor activities and activities undertaken jointly with schools in other countries. I learned that there are many digital tools that can be used in group work.

<u>I would like to deepen my knowledge/skills on...</u>

…lesson planning based on CL

…introduction of cooperation and collaboration in work with children who have never had contact with this method and/or are reluctant to this method of organizing a lesson in integration classes, where they are students with special educational needs; motivating students to work

…evaluating the effects of group work and the individual efforts of individual team members. It seems to me that this is the most difficult area of design activities for teachers, especially during teamwork, hence in this area I feel least competent. I would like to learn how I can more efficiently and more equitably assess the individual contribution of each student in the classroom during group work, as well as how to effectively use peer assessment

…different ways of using information and communication technologies in group work.

Enablers and obstacles for the use of CL

OBSTACLES: Barriers in CL implementation

- Lack of knowledge among teachers of the entire curriculum (including preamble and the content)
- Implementation of teaching content following only a textbook and exercise booklet, often inadequate to the core curriculum, with a focus on the message and not on the skills.
- The teachers' misinterpretation of the content of the textbooks - they think the textbooks contain everything that is needed to realize the core curriculum. This is not the case, textbooks in many cases are overloaded with content rather than developing skills that are being developed in teamwork.
- Rigid, often inadequate interpretation of the provisions of educational law, eg on core curriculum, lesson schedules, etc., mainly by school principals and leading bodies (school owners).
- Parents for whom a good school is one that has a high ranking position. "Rat race," neglecting the development of social skills, group ties to master the new knowledge only, a school where rivalry rather than cooperation and collaboration is a priority.

ENABLERS: What facilitates CL?

- Good knowledge of the core curriculum where, in the general part (called the preamble) there is a clear record of the use of forms of work in the group, referring to all stages and subjects.
- Proper planning of work and time by the teacher.
- Identification with the teachers and students the principles of collaboration applicable in the form of group work.
- Establishing blocks of teaching hours (lessons).
- Building a student-teacher relationship.
- Knowledge of the goals of both the teacher and the student.
- Fair evaluation in different forms - self-evaluation, peer assessment, formative assessment, teacher assessment

How participants ensure enablers and overcome obstacles? Good practice in solving problems and making CL possible.

Elements important in teaching through CL

- How to select students to a group.
- The number of people in the group - from 4 to 5, depends on the task to be performed, the couple is also a two person group.
- Assignment of tasks and materials - each group receives the same task - the ability to compare the effects of work, the results of experiments, etc., each group receives another task - the sum of group work gives the final effect.
- It is important to diversify, which brings emotions to the lesson.
- Constructive solution to problems with students who are hindering their work in groups.
- Summary of the work and its evaluation by self-evaluation, peer evaluation, evaluation of both the subject matter of the task and the work in the group, assessment by the feedback.
- Do not overdo the frequency of teaching through collaboration. A variety of forms and methods of work are needed.
- The right organization of space - especially the setting of benches that will allow you to work in teams.

Dialogue between practitioners and policy makers

Did practitioners and policy makers exchange opinions during the workshops? How was this dialogue organised? (if not – why. Describe the difficulties in engaging policy makers if relevant)

Participants were mostly practitioners and they exchanged opinions and took part in active discussion. There were a few school principals, representatives of curricula (e.g. education board in the region), one representative of the ministry of education and few representatives from ministry body engaged in implementation of public education policy projects. They were present only from time to time and thus not during all of the workshops (except from education board). There were probably several reasons, why policy makers were not that keen to participate – policy makers prefer more general topics, not that detailed like lesson scenarios or the methods to assess students, the part of the training was the MOOC platform, which was designed for teachers mostly, not for policy makers.

What issues were raised in the discussion between practitioners and policy makers?

One of the topics was the provisions of the current core curriculum teachers. In the opinion of policy makers, the provisions explicitly recommend teaching through interaction and teachers are supported

by a variety of forms of professional development as well as didactic tools in the implementation of classes using CL. In the opinion of teachers, the core curricula are not clear and do not recommend direct learning by interaction, and there are also examples of good practices and didactic solutions that could support teachers of different subjects in the application of CL.

Did practitioners and policy makers reach a better understanding of the other sides' perspective? How? What indicates that? Did policy makers' perspective change? How? Did policy makers demonstrate a willingness to make changes?

It seems that yes, mainly it could have been observed during the discussions after each of the workshops, especially the final one. The recommendations were formulated together, with all workshop participants. Some of them referred to a need to cooperate among various education bodies and organisations.

Use of group work and collaborative learning by practitioners

Did they use group work? How, what methods? How did they assess group work?

Project participants had already used the form of group work that was characterized by certain elements of the CL, such as co-responsibility for the task or collaboration in determining how to work with it. Most teachers, however, have stated that very few students set a task to do or a problem to solve - usually this was only during the implementation of lower secondary school projects. Participation in the Co-Lab project allowed them to try to give students an initiative to identify the problem that they will be dealing with in the classes

Did they use collaborative learning, or elements of CL (not every group work is CL)

Project participants were able to confront their teaching activities with students with guidelines that define CL and assess their level of interaction using a description of the CL levels available on the MOOC platform. In the discussion they stated that it is important to make the lesson more divergent/attractive by introducing these elements into different areas, depending on the topic, the characteristics of the group and its involvement. It is not always the teamwork that has to be fully cooperative - it is also valuable to use its certain elements.

How the participation in CO-LAB affected practitioners? What did they learn?

As described above, teachers introduced CL elements during their lessons - this applies to teachers in both primary and upper secondary schools. By teaching subjects such as chemistry or nature, teachers also taught the principles of co-operation - sharing responsibility, the ability to jointly set the methods and activities of the whole group, self-assessment and peer evaluation, using the MOOC rubrics and self-assessment cards.

Did they change their approach to incorporate the collaborative learning? How? Did they make changes in teaching and assessment? What changes?

Most of the participants were convinced that group work is a valuable teaching form as it develops valuable social skills that are needed in the labour market. Participation in the project provided teachers with a deeper knowledge on collaborative learning methods and the differences between commonly known but less commonly used group work and the CL.

Uptake of the 21 CLD rubric – collaboration levels (1. Work in groups or pairs, 2. Shared responsibility, 3. Making substantive decisions together, 4.Interdependence). Did they find it interesting, understandable, practical…? Did they use it? Comments?

The diagram illustrating the subsequent CL levels was useful for teachers as it allowed for an easy way to grasp how much the lessons were taught by using CL method. This is one of the tools that is certainly practical and useful for a teacher (a practitioner), especially one who wants to develop his working methods and expand them into a more complete form of CL.

Teacher cooperation. Do they cooperate more effectively with their colleagues as a result of Co-Lab?

The participants of the project established numerous contacts and relations. One of the recommendations formulated during the workshop was the creation of a network of CL teachers. On the other hand, it is not well known whether and how the skills and knowledge acquired during the Co-Lab project will translate into the collaboration of teachers - project participants with colleagues in their schools.

How else did they profit from the project – e.g. increased confidence, ideas for new projects, changes in the organization of the school, other effects?

As shown in the workshop 3 many participants in the project have engaged in the use and dissemination of the CL method in their work with students as well as among other teachers - practitioners. Many have used ICT tools and assessment tools provided on the MOOC platform (such as self-assessment or peer review cards) to engage with students (i.e. chemistry or nature classes) and to train teachers (i.e. librarians). In addition to the tools used during the on-line project training, a group of students - future teachers developed their own research tools to assess the effectiveness of teaching and evaluating CL work. Detailed descriptions of the activities can be found in the chapter of this report, devoted to workshops conducted with project participants.

2.5.4. Project organisation, cooperation with and support for project participants

Project implementation in your country

Who was involved in the project implementation in your organisation (and in cooperating organisations if relevant)? What were the roles of this staff? Did this approach to project implementation work well for you and the participants?

IBE was leading the implementation of the project in Poland. Partners of the IBE in the implementation of the Co-Lab project were the following institutions:

- Mazowieckie Samorządowe Centrum Doskonalenia Nauczycieli (MSCDN);
- Warszawskie Centrum Innowacji Edukacyjno-Społecznych (WCIES);
- Faculty of Pedagogy, University of Warsaw (WP UW).

The task of the partners was to implement the idea of teaching and learning through collaboration in activities directed to teachers (MSCDN and WCIES) and students - future teachers (WP UW). Representatives of each of these institutions developed their final reports on project tasks. The reports describe in detail the actions taken and the results of the project. Reports have become the basis of the content of this chapter and have been partly used to draw up a list of recommendations.

Partner reports have been drafted by:

- Mrs. Marzena Duman and Mrs. Beata Rola, teachers consultants from Warsaw
- Mrs Urszula Depczyk, methodological advisor, leader of the WCIES faculty of natural sciences;
- Dr. Małgorzata Sieńczewska and Dr. Dorota Sobierańska, academic staff of the Department of Early Education and Training of Teachers of the Faculty of Pedagogy, University of Warsaw.

MSCDN is a public training center for regional teachers, which was established in July 2005 by the merger of six training centers located in Mazowieckie. The MSCDN consists of the Departments in: Ciechanów, Ostrołęka, Płock, Radom, Siedlce and Warsaw. MSCDN strives to promote innovation, thus involving its representatives in many European projects, promoting innovative methods and forms of educational work in institutions. Recipients of training proposed by the MSCDN are both individual teachers and teams of pedagogical councils directed to training by school principals. Most participants are school principals, teachers of all types of schools and educational institutions, employees of Mazovian Education Board and local self-government units of the Mazowieckie Voivodeship.

Representatives of the MSCDN within the Co-Lab partnership have undertaken a number of activities promoting the collaborative learning approach and supporting teachers involved in the project:

- During many conferences and trainings information about the project was provided in the form of leaflets and oral communications.
- Information about the project was posted on the MSCDN and Facebook website;
- MSCDN has designated a person to receive applications to participate in the project, to provide information and to keep in contact with the IBE;
- MSCDN participated in the recruitment of training participants on the MOOC platform;
- Teachers of MSCDN consultants from Warsaw served as advisors during the on-line course on the MOOC platform;
- Teachers MSCDN consultants took part in organizing workshops by inviting guests and networking with schools;
- Teachers dr Beata Rola and dr Ewa Pyłka-Gutowska ran workshops with teachers on 6 February 2017.
- Teachers consultants Marzena Dżuman, Agnieszka Staszewska-Mieszek and Teresa Stryjewska presented the examples of good practice in CL teaching and learning on the example of their classes with teachers and students during the workshops organized on 5.06.2017.
- Activities undertaken by MSCDN employees have produced tangible results: thanks to the recruitment activity of the center, the project was attended by a large group of teachers, including teachers of MSCDN entities. The workshops taught by the consultant teachers received high assessment of the participants as useful and easy to use in school practice - so it is hoped that many elements will be implemented in the work with the students.
- School teachers who have participated in the project systematically contact teacher consultants to develop their interpersonal learning skills.

Warszawskie Centrum Innowacji Edukacyjno-Społecznych (WCIES) is an educational institution, whose main goals are to support the educational environment in Warsaw and to improve the quality of schools and educational institutions in Warsaw. Those include the organization and implementation of methodological advice, the support of teachers and school and educational directors, the introduction of systemic education and education solutions and the promotion of educational and social innovations.

Twelve biology teachers working in different types of schools in Warsaw and a WCIES geography consultant were invited to take part in the Co-Lab project.

The teachers and methodological advisers who participated in the project actively participated in workshops, as well as on-line training, aimed at presenting interesting solutions for planning and conducting classroom activities with the use of teamwork. Teachers conducted classes in their schools

with their students, and methodological advisors took part in in-service training with teachers using project-based learning materials, including lesson scenarios and video films. Each teacher conducted at least a dozen classes using a teamwork form depending on the school conditions, class size, and subject matter. Methodist advisors have been employed in task teams at all methodological workshops for biology teachers and in on-the-job training. Teachers gradually implemented the form of teamwork.

Wydział Pedagogiczny Uniwersytetu Warszawskiego - From 7 till 25.03.2016 students were recruited for the project. First and second year undergraduate students in the field of pedagogy of young children, pre-primary and early childhood education and pre-primary and early childhood education with early English teaching were informed about the objectives of the project, the principles of its organization and requirements for participation in the workshop, on-line training and other design tasks. As a result of the meeting, 14 students of the aforementioned specialties reported their willingness to participate in the project. During the project some of them have resigned, new applications have appeared. Finally, the project was completed by 9 people.

They took part in:

- Three workshops taking place at IBE premises;
- On-line training organized on the MOOC platform;
- On-line discussions on project topics,
- Evaluation of the impact of the project on early childhood education and academic education,
- Development of the feedback on the use of acquired knowledge in practice.

Recruitment of participants to the project, to the MOOC and workshops

How was it done – e.g. open recruitment or selected schools? Why? Were there links to other projects - if yes how did it help? Any issues?

The recruitment went through the described above 3 cooperating organizations plus through IBE's open recruitment, to give an opportunity to anyone wishing to join the project.

Maintaining contact and support for participants. How did you help participants? E.g. contact persons in schools, mentors for schools, the activities of the national contact person(s), meetings of participants, additional meetings/workshops etc. What issues did the participants have? What forms of contact / support worked well?

Participants were helped by IBE mostly and the three cooperating organisations as regards their representatives recruited to the project. IBE's support included recruitment, help with formal issues regarding documents to be signed while seconding a teacher for a training, issuing of presence certificates after workshops, explanation of project aim and providing information on project documentation. A substantial part of IBE's coordinator work was the helpdesk during the training on the MOOC on-line platform, in particular at the end of the training when it generated many technical problems and was not accessible during the deadlines for Polish participants. In addition, the platform did not work properly also in terms of exchange of scenarios for peer-reviewing as Polish participants were getting scenarios in foreign languages and it was not possible for many of them to do the proper assessment.

Use of virtual platforms (national Facebook group, Yammer, other...).

Were they used, were participants active (if not, why), were virtual tools helpful, any issues…?

Throughout the duration of the project, respective information was placed on the IBE website at http://www.ibe.edu.pl/pl/projects-international/Co-Lab. There was also a Polish fun-page project on

Facebook.com, if however the national social media page did not turn out to be very popular, even if moderated by IBE expert. The moments mostly generating movement were linked with the MOOC training platform time when hints how to proceed with the training were exchanged.

The MOOC – content. Did participants comment on the scope, level, and content of the MOOC – e.g. topics, methods covered? If yes, what were the comments? Was the content relevant to their needs and their level of competence? The MOOC – organisational and technical. For non-native English speakers - were there language issues, did you provide help (what kind)? How did it help?

Teachers were afraid of English language, even if some of them actually understand it. However this was an obstacle for them to participate if international forum, project Facebook etc., so only few of them actively exchanged their opinion on the Padlet with project participants from other countries.

Project design and implementation at international level.

The contact between project coordinator and the coordinator of the Polish partner was good and effective. A problem faced was linked with the exchange of peer reviews on the MOOC training platform, so that finally the exchange was done not by the on-line tool but by the direct mails of Polish project coordinator and distribution of relevant scenarios to individuals.

Conclusions regarding project organization, recruitment and support

What worked well for you in the implementation of this project? Is there anything you would have done differently? What should be taken into account in the organization of similar projects in the future?

It seems that for the future project including on-line training, the precondition for participation of Polish participants should be the proficiency in English otherwise the implementation of the training on time might be difficult if not impossible to be done. Although help desk by Polish project coordinator was provided (even during weekends), some participants stated that this kind of exercise took much more time than they initially expected. This is also a good example for Polish teachers and school principals that ICT skills of teachers should be further developed.

2.5.5. Recommendations

Schools

Teacher level

It seems necessary to focus more on shaping and developing the ability to learn in collaboration and cooperation, especially in terms of learning objectives and curriculum content.

It is possible to implement CL at school, the work of many teachers - participants in the project is a proof for that. Based on the core curriculum, also amended in 2017, there are provisions recommending group work, unfortunately, without specifying how this group work should be understood.

Systematic evaluation of group work - both individually and collectively - should be systematically evaluated, using self-assessment and peer assessment, current and summative assessment.

School – Head-teacher level

School owners (leading bodies) and school principals should be more flexible in the organization of schoolwork (including sharing time), thus enabling integrated and collaborative teaching. The benefits of such organizational solutions are obvious - higher levels of social skills and, therefore, higher chances of graduates in the labour market.

Continuous training institutions

It is important to promote teacher training for teaching methodologies through collaborative and group work assessment. Teachers need specific advice, tips on how to work with groups of students, what topics are suitable for this method. It will also be valuable to conduct teacher workshops on how to effectively implement the CL method in lessons, interdisciplinary cooperation, trips and green schools in conjunction with the core curriculum, or regular supervision (e.g. once a month) for teachers who decide to work with the CL method.

Policy makers

It will be useful to systematically implement the CL method with the engagement of educational authorities at various levels, curatorial staff, teachers and staff members of higher education institutions educating future teachers.

It will be extremely valuable to set up a teaching tools database that will inspire teachers of various subjects to show how to conduct CL classes based on the core curriculum. Teachers need concrete, practical examples of didactic solutions based on the core curriculum, ready for use in school.

It is recommended to organize a place for exchange of experiences, reflections and information on collaborative work, where interested persons from the school environment (teachers, students, and parents), academics (students, lecturers), in-service training consultants (methodological advisors, consultant teachers) could serve each other, help and learn from each other. Such a place could be, for example, the internet platform.

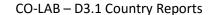**Partners, project providers (development of future projects)**

It will be extremely valuable to set up a teaching tools database that will inspire teachers of various subjects to show how to conduct CL classes based on the core curriculum. Teachers need concrete, practical examples of didactic solutions based on the core curriculum, ready for use in school

In the longer term, it will be valuable to carry out longitudinal studies on the effectiveness of this method in the context of long-term teaching from primary to secondary school.

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2.6. Portugal

2.6.1 Introduction

The iTec project and the CCL project brought to teaching in Portugal, new ways of being in the classroom. Not just the technology, but also the methodology. The iTec Project with the various cycles and Learning Scenarios as well as the CCL with new Learning Scenarios bring to the teachers involved a different way of being in the classroom.

Since its beginning, the Project has received great acceptance from the teachers. After the Kick Off in Brussels, a group of headmasters were contacted, where they were asked to invite in each of their schools three teachers who, for about one academic year, wanted to apply a methodology of collaborative teaching in the classroom.

From that moment a Facebook Group was created, CO-LAB in Portugal, whose main objective was to support the teachers involved in the project, through news publishing, publication of events, sharing of good practices and sharing of resources, which in some way were related to collaborative work.

By Collaborative Learning, understand a way of learning where collaboration between students and between teachers, contrasts with more traditional teaching, where teaching is more passive on the part of students.

The group currently has approximately 1,080 members.

Working in groups and collaborative learning in schools in national legislation

The educational system in Portugal is currently undergoing a great change, both at the level of the student's profile, a new profile has been approved for the student, (what if the student wants to reach the end of his or her Secondary education).

This new student profile is what is desired for the students when they reach the end of upper secondary education. It is for all students who now enter into the education system or who are already in it. Much of the basis of this new student profile is based on the 21st century skills.

Another change in what is called curricular flexibility, where about 200 schools, will next school year change and manage about 25% of their curriculum, a change in pedagogical practices in order to reduce school failure. At this moment only 200 cluster of schools of the 810 existing in Portugal, since the applications were voluntary, this pilot intends to test some of these new measures. Since the applications were voluntary. This pilot intends to test some of these measures. The idea was only to be 50 groups, nevertheless 200 schools were enrolled. This curriculum flexibility covers all teaching cycles.

These 200 schools have applied to be able to change 25% of their curriculum, with measures that can increase school success and reduce failure.

National School of Promotion for School Success was a challenge made the Ministry of Education, for schools and principals to implement innovative measures to increase student success

A project is also being implemented, where 6 School Groups have been invited, where they can execute all the changes they wish, in the contents, in the subjects, in the format of the school year, etc., as long as it is to promote school success and the consequent reduction of school failure and dropout.

CO-LAB is a project that has helped in this change a lot, because in promoting new pedagogical practices, it has been said by many teachers that next year there should be a greater dissemination of collaborative practices, and DGE is thinking about proposing a great Initiative in this area. The CO-LAB will be for all the schools who are interested. The teachers who attended the CO-LAB stated that an initiative in the area of collaboration should be implemented in Portugal. This is what is being prepared by DGE, so that the collaborative methodology can be disseminated at the national level.

In addition, the curriculum is being rethought. One of the terms most used today in the lexicon of education is the word Collaboration. CO-LAB and what has been learned from it can be an added value for teaching in Portugal. It is in this sense, and reinforcing what has been said above, that the DGE will present a national initiative in this area, so as not to miss what was learned in the CO-LAB.

We are therefore living a great moment of change, with a great majority of teachers wanting to not only change, but also to ask for help in this change.

This training is not mandatory, but as has been said previously, it is the teachers who feel the need for training in this area, since the teacher training was based on traditional methods.

These initiatives / projects, such as iTEC, CCL, LSL or Co-Lab, are very important in awakening many of these teachers to new, more active methodologies where students become central to the learning process.

Is social competence defined among learning outcomes in regulations (core curricula)?

In this area is being thought by the ministry, a new discipline with the name - Citizenship - where social skills will be the focus of it.

Regulations of in-school assessment – can CL be assessed, is it required?

Yes no doubt. CL is one of the forms of this change, and in the three meetings, much has been requested in this area, such as the creation of a community of practice to support these changes.

One of the areas where there is a greater need for training is in the area of collaborative work. In the national event promoted by the DGE, on curricular flexibility, it is precisely in the area of evaluation of collaborative work, which will have a great focus.

Some schools were invited to present innovative projects in the area of collaboration, some of these schools had teachers involved in CO-LAB, and one of the emphases is precisely in the evaluation. Schools already have the autonomy to allow this type of evaluation, but because there is still very little experience in this area, this type of training is requested from teacher training centres and LA ambassadors.

DGE is also considering changes in this area.

In addition, the high implementation of FCL as facilitators of change has been another area where schools have requested the help of the Ministry.

Regulations on school organization. Ex. do timetables permit teachers to use active approaches such as CL? Teacher remuneration and promotion – what is rewarded, can the use of CL contribute to promotion? How much freedom does the head teacher have do define these?

In this area, the changes have happened at several speeds:

- Timetables: In some schools this is already being taken into account. Teacher schedules have already begun to take into consideration the time for collaborative worker.

- Teacher remuneration: unfortunately here the situation is still not considered.
- It is however given freedom to the teacher, the possibility to change their practices. The headmasters have all the autonomy to promote this type of change. Classroom councils can also define collaborative working times in conjunction with principals. However, this practice is still not widespread. There are still many directors who for lack of knowledge or conviction are not yet engines of change as they should be.

How have regulations changed within recent years as regards CL? Are those changes in favour of CL?

The changes that are taking place now in the teaching allow and promote CL.

2.6.2. Realisation of the workshops

Workshop 1

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

The 1st Workshop was held in Lisbon at the Eça de Queirós School, on May 18, 2016, with approximately 220 participants (184 teachers, 3 student teachers, 27 directors, 3 directors of training centres and 3 policy makers).

Objectives of the workshop

The objective of this first Workshop was to present the general project goals, and what each teacher was supposed to do.

Workshop 1 agenda

- Opening Session
- The Project CO-LAB: A European Vision and a National Vision
- The Collaborative Work:
- A Vision of a Headmaster and a Director of a Teacher Training Centre
- Collaboration in the classroom
- Learning scenarios
- Flipped Classroom as an example of Collaborative Work
- Collaboration in the classroom
- ETwinning Collaborative Work
- The Collaboration
- Closing

Description of sessions (what happened during the workshop)

The four sessions - Collaborative Work in the classroom - intended to show some examples of collaborative work, in several aspects, and in various contexts, in the classroom.

Raised issues. Brief conclusions from the workshop

The objectives of the Workshop were achieved, since the teachers realized very well what was intended, regarding the work that was requested to them as involved members of the CO-LAB.

Workshop 2

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

The second workshop was held in Entroncamento City, at Ruy Andrade School, on March 8, 2017, with approximately 110 participants (75 teachers, 1 student teacher, 24 directors, 3 directors of training centres and 7 policy makers.

Objectives of the workshop

The objective of the second workshop was to present a summary of the activities carried out so far by the teachers involved, present the results and numbers of the MOOC, and hold practical sessions with a set of guidelines suggested by EUN.

We also took advantage of the presence of a significant number of headmasters to prepare a SWOT analysis with their opinions.

Workshop 2 agenda

- Opening Session
- The Project CO-LAB: First Balance
- European and National Aspects
- Panel "Good Collaborative Practice in the Classroom":
- "Collaborative Methodologies in the 1st cycle"
- "Collaborative Methodologies in Basic Education"
- "Collaborative Methodologies in Secondary Education"
- "The CO-LAB in the perspective of school leadership"
- Workshops
- These workshops were based on the guidelines proposed by EUN - teachers
- Presentation of the conclusions of the working groups
- Next steps
- Conclusion

Description of sessions (what happened during the workshop). Descriptions of (the most interesting) good practices in CL, if they were shared during the workshops. Raised issues

The workshop was considered, by the great majority of the teachers present, very positive, taking into account the great exchange of experiences that was made among all involved.

Workshop 3

Where, when, how many participants (split by categories: number of teachers, student teachers, teacher trainers, head teachers, policy makers, other)

The third Workshop was held in Coimbra, at Coimbra University, Polo 1, on June 12, 2017, with approximately 86 participants (76 teachers, 1 student teacher, 4 directors, 2 directors of training centres and 3 policy makers).

Objectives of the workshop

The objective of the third workshop was to present a final balance of the activities carried out so far by the teachers involved, present some good practices and give some information about the next steps.

Workshop 3 agenda

- Opening Session
- The Project CO-LAB: Balance
- European and National Aspects
- Keynote - Ivete Azevedo "To be or Not To Be a Collaborative Problem Solver":
- Panel Good Practices - School Cluster Batalha
- Panel Good Practices - School Cluster nº3 Rio Tinto
- Lunch
- Panel Good Practices - School Cluster São Bruno
- Panel Good Practices - Professional School of Almada
- Collaborative Activity, with all teachers
- Next steps
- Conclusion

Raised issues. Brief conclusions

The objectives have been fully achieved as teachers like to see practical examples from other teachers to draw ideas that can be applied in their own classrooms.

2.6.3. Results of the workshops and of the project

Understanding of collaborative learning

How did participants understand CL?

Most of the teachers involved in the Project were realizing throughout the project what the CL is. One of the main elements that contributed to this perception was the MOOC promoted by the European Coordination.

Also important was the Portugal and the European FaceBook group of CO-LAB, where were placed a huge amount of resources related to Collaboration, Project Based Learning, Flipped Classroom, among others,

In addition, the visit to a high number of schools, explaining the philosophy of collaborative work, was very important.

Teachers greatly appreciate this closeness and these live encounters.

What changes were there to the understanding of, opinions about, and attitudes towards CL across the 3 workshops (before, during and after)?

The main differences are already referenced in the above paragraph. If at the first workshop, most teachers were in doubt, between the first and second workshops, teachers' knowledge increased exponentially, and it was largely due to the fact that a large number of teachers had put it into practice in the classroom this type of methodology and the strong support that was given by the MOOC.

What differences (if any) were there in the opinions and attitudes towards CL between teachers, teacher trainers, head teachers and authorities?

Most teachers feel that CL is an asset and can help immensely in reducing school failure, while increasing student motivation and making learning more active. Have more active students.

Teachers are the first elements to express their support for practices of collaborative methodologies, since there is an increasing difficulty in keeping students attentive using passive methodologies.

The directors of the training centres in conjunction with the school headmasters can promote training in this area of new methodologies. The headmasters involved in the Co-Lab as well as the directors of the training centres involved, who have been to the end of the project, have already begun to promote training in this area. In addition, two of the training centres each have an FCL.

School headmasters who already have an FCL at their school also have another kind of sensitivity to these new methodologies.

Currently the national authorities promote through DGE the support to all who wish to promote change, either through national plans or through national initiatives.

Enablers and obstacles for the use of CL. How participants ensure enablers and underline overcome obstacles? Good practice in solving problems and making CL possible.

In the link below you can find the main enablers and obstacles highlighted by the Portuguese teachers:

https://goo.gl/ygb2rD

Dialogue between practitioners and policy makers

Did underline practitioners and policy makers exchange opinions during the workshops? How was this dialogue organised? (if not – why. Describe the difficulties in engaging policy makers if relevant)

The second CO-LAB workshop was considered excellent by most of the participants and even by the organization, since it was possible to join about 25 Headmasters and Directors of Teachers Training Centers, which have a fundamental role in the implementation and dissemination of these new methodologies.

These headmasters were asked to elaborate a SWOT analysis on the collaborative work, and their opinions are registered in the link below:

https://goo.gl/SwJWd8

The Ministry of Education with its new measures, which facilitate and promote changes in the classroom, in particular in the implementation of more active methodologies, gave to headmasters a space to manoeuvre to promote these changes.

What issues were raised in the discussion between practitioners and policy makers?

This answer can be seen in the two previously placed links.

Did underline practitioners and policy makers reach a better understanding of the other sides' perspective? How? What indicates that?

As was said earlier, this aspect was very visible in the second CO-LAB workshop, since they were face to face, Headmasters and Teachers, and it was very positive for each one to perceive the difficulties and aspects of others.

Did policy makers' perspective change? How? Did policy makers demonstrate a willingness to make changes?

The headteachers who were in the meeting, and in the others who were not present, they selected teachers for CO-LAB, share their vision and perspective is clear and they wanted to change.

In the three Workshops that were done, there was a group of headteachers who were in the list of participants in the project, which however for agenda reasons could not be present.

It is these headteachers that I wanted to refer in the sentence: "and in the others who were not present".

However, this change must be made at the level of the whole school and not just by single experiences. This finding is general and not just a group.

Use of group work and collaborative learning by practitioners

Did they use group work? How, what methods? How did they assess group work?

Some teachers have done group work at the 1st cycle level. The work in some schools was done through projects, and much of this work had a focus on process evaluation and formative evaluation.

Most of this group work is done in the first elementary cycle level. In the following cycles, there is some group work and already teachers are attempting a more complex collaborative work. Some already do even PBL, but this is only possible for students with greater autonomy.

We can conclude that for the most part we have a mixture of group work and collaborative work. We also found, although in a small scale, PBL.

Did they use collaborative learning, or elements of CL (not every group work is CL)

Some schools and teachers used the collaborative methodology, based on learning scenarios.

How the participation in CO-LAB affected practitioners? What did they learn?

According to many of the teachers involved, and through the form that was done by the Portuguese coordinator of the project, CO-LAB was one of the main causes of the implementation of the collaborative methodology.

These are some of the opinions of teachers:

- "Note that there are more and more teachers who want to change and revolutionize schools with these new practices."
- "It shares the excellent pedagogical practices that the school has at national level."
- "There should be more sessions, in various locations, north and south."
- "The sharing of experiences that allows to know the works developed in this area, to reflect on the own practices and to create new forms of action from the presented works"
- "Excellent moment for sharing and collaboration according to project spirit."
- "The sharing between teachers of collaborative work, the way everyone wants to change and how they do it by creating solutions, taking into account all the constraints."

The MOOC has also promoted, disseminated, very good practices of collaborative work.

Did they change their approach to incorporate the collaborative learning? How? Did they make changes in teaching and assessment? What changes?

Uptake of the 21 CLD rubric – collaboration levels (1. Work in groups or pairs, 2. Shared responsibility, 3. Making substantive decisions together, 4. Interdependence). Did they find it interesting, understandable, practical…? Did they use it? Comments?

See the shared link in section 4.1 of this report - https://goo.gl/ygb2rD

Teacher cooperation. Do they cooperate more effectively with their colleagues as a result of CO-LAB?

This was undoubtedly one aspect that made the most progress. The teachers involved in the project started to have a more collaborative attitude, as well as to implement collaborative methodology in the classroom.

This is what teachers involved in the CO-LAB mentioned in the workshops' evaluation.

When we finished all the workshops, we ask to all participants to fill an Assessment Survey about the project and the workshop itself.

Most of the participants involved say "CO-LAB was very important in this kind of changes, such as new approaches in classroom, sharing ideas, etc."

Of course, they know that there is still a lot of resistance within teachers, but the various Workshops allow them to learn about new practices and probably help other teachers to change.

How else did they profit from the project – e.g. increased confidence, ideas for new projects, changes in the organization of the school, other effects?

The project brought new ways of looking at the classroom, especially in the dynamics, since the students, whenever this collaborative methodology was applied, had a more active, more interactive, more autonomous role.

The headmasters involved in the project became more facilitators in their schools.

If headmasters realize that much of this collaborative methodology can help improve student achievement, encourage success, and reduce dropout, they will be facilitators of change.

As we had a very interesting number of directors involved, namely in the second meeting, the SWOT analysis done by them, at our request, does indeed show this facet of facilitators.

See this document: https://goo.gl/SwJWd8

2.6.4. Project organisation, cooperation with and support for project participants

Project implementation in your country

Who was involved in the project implementation in your organisation (and in cooperating organisations if relevant). What were the roles of this staff? Did this approach to project implementation work well for you and the participants?

I was appointed by the ERTE Team Leader, the National Coordinator of the Project, and had to work directly with two colleagues, in the pedagogical area.

We then set up a Facebook support group with about 1080 members, which was the main form of communication with the participants.

Another area of intervention of the coordination was the visit to the schools; many of them were integrated in the Educational Days of the school itself.

Finally, a community of practice was created, which we hope will have a greater dynamism in the future dissemination of the project, which is being considered by ERTE.

Recruitment of participants to the project, to the MOOC and workshops

How was it done – e.g. open recruitment or selected schools? Why? Were there links to other projects - if yes how did it help? Any issues?

In the beginning, headmasters were contacted, to invite teachers who wanted to be part of this project, on a voluntary basis.

Then many other teachers were integrated into the project, for having received information through other colleagues.

Other teachers were invited directly, since they already had a good background in other projects, for example, the CCL or LSL.

Maintaining contact and support for participants. How did you help participants? E.g. contact persons in schools, mentors for schools, the activities of the national contact person(s), meetings of participants, additional meetings/workshops etc. What issues did the participants have? What forms of contact / support worked well? Use of virtual platforms (national Facebook group, Yammer, other...)

Were they used, were participants active (if not, why), were virtual tools helpful, any issues…?

Please refer to previous answers.

The MOOC - content

Did participants comment on the scope, level, content of the MOOC – e.g. topics, methods covered? If yes, what were the comments? Was the content relevant to their needs and their level of competence?

The MOOC was probably the main aspect of the teachers' to involve into the project, along with the face to face contacts, since their quality and the content addressed, helped teachers to understand what the collaborative work is and also to clarify doubts.

The MOOC – organisational and technical.

Any issues, for example timing, technical issues, language issues? Did you help participants to profit from the MOOC? How? Did it work? For non-native English speakers - were there language issues, did you provide help (what kind)? How did it help?

The main constraint felt by Portuguese teachers was the language of the MOOC was in English.

However, and whenever we were asked, we gave all the help, mainly through the contact via Facebook's Group or by e-mail.

Project design and implementation at international level.

Do you have any remarks?

This project was, in the opinion of all the participants, one of the best projects of EUN. This is because now, in Portugal, we are in a phase of great change in what classroom practice is concerned, and Collaboration is one of the most used terms in this change.

National policies are now encouraging the change of classroom practice, allowing schools to change about 25% of the curriculum, and this change is being encouraged by the Ministry of Education, through large national measurements.

Schools are enrolling in large numbers in these changes.

CO-LAB is one of the most talked about projects in the country.

Conclusions regarding project organization, recruitment and support. What worked well for you in the implementation of this project? Is there anything you would have done differently? What should be taken into account in the organization of similar projects in the future?

The whole organization of this project was thought to the detail, hence its success, namely in Portugal.

The MOOC, the Facebook group, the visit to the schools, to speak face to face with the teachers and the headmasters, is another aspect that was highly valued by all involved.

Teachers feel they have to change their practices, and projects of this kind, can be good levers for these changes.

In fact, the teachers ask us if we intend to promote a project in this area of collaboration, taking advantage of the synergies of the CO-LAB.

Many teachers have shown their sadness because the project is going to end, and we believe that a national project based on CO-LAB could be the answer to the many requests we have had.

2.6.5. Recommendations

Schools - Teacher level

- Teachers should always be the primary focus of change. These should always be done in conjunction with the directions of the schools and teacher training in this area should not be forgotten.
- Many teachers want to change, but they do not know how. The Educational Days of the schools, the training - Portugal has the initiative Learning Labs, where we implement workshops of new methodologies, which are a real success, should be implemented at national level.

Schools – Headmaster level

- Headmasters are key players in this change. An innovative headmaster not only accepts innovation, but can also be a change agent. There are already many headmasters who are changing, others who want to change, and still others who are watching what to do. All of them, through seminars, national meetings, should be called to change.

Continuous training institutions

These institutions are fundamental if you want to disseminate such kind of new methodologies and practices and should work together with the headmasters. In reality, the first steps are being taken in this direction, in Portugal.

Training should be based largely on this area of practice and methodologies.

Teachers will change whenever they feel comfortable with it. However, it is crucial that the training centres have a strong offer in areas like:

- Web 2.0 Tools
- Collaborative Work
- Project Based Learning
- New learning spaces

- Flipped Classroom

Policy makers

Without the true support of Policy makers, none of this will have scope, so there is the risk of being considered a fashion.

Therefore, at the national level, there must be a well-defined policy by the Ministry of Education that promotes these changes through laws, orders and legislative changes.

Portugal is currently experiencing a great movement of change.

Bibliography

- CO-LAB Portugal Facebook group - www.facebook.com/groups/1014957991896313/
- The CO-LAB site by DGE - http://www.erte.dge.mec.pt/co-lab

ANNEX 1 – Country workshops guidelines

Guidelines for the country workshops design and implementation (April 2016)

Three one-day country workshops are planned during the Co-LAB project.

They all share the same following aims:

- spreading the words about Co-LAB to all players potentially concerned,
- implementing a solid communication and exchange channel with the practitioners directly involved in the project,
- offering a platform for the dialogue between the practitioners and the policy makers (school heads, local/regional/national authority representatives) to discuss the conditions for the policy and regulatory frameworks to fully support the implementation and generalisation at school and system levels of students' collaboration practice and assessment.

To reach these aims, these one-day workshops must be designed in a specific way, organising different type of exchanges for different groups of participants through a mix of plenary and parallel sessions. Such workshop organisation should succeed in properly addressing the specific needs of the respective target groups, while nurturing their feeling of being part of a joint – and collaborative - process.

Taking place at different phases of the project, each country workshop also aims at reaching specific goals related to the development stage of the project.

Each national lead project partner is responsible for all aspects related to the workshops in their own country. Long enough lunch breaks are organised during each workshop to favour informal exchanges between all participants.

The launch workshop in May-June 2016

Main objectives

This workshop is the opportunity to spread the words about Co-LAB at country level. It also aims at finalising/progressing with the recruitment of ITE and CPD trainers, and school teachers to be directly involved in Co-LAB, and make clear their role and contribution through their participation to the MOOC and next country workshops, as well as in testing student collaborative learning and assessment scenarios through classroom practice. Such involvement indeed requires practical

arrangements to be anticipated at institutional level (timetables, work load organisation, etc.) and taken into in the 2016-17 school/academic year plans.

The launch workshop is also the key moment to fully involve policy makers in the project and make clear to them what their involvement in Co-LAB will be and how they will benefit from it.

N.B.: Prior to the launch workshop, the benchmark survey for policy makers is administered online.

Participation

The national lead project partner invites minimum 30 teacher trainers from initial and in service teacher training organisations, teachers from schools working with these organisations, and schoolteachers from additional schools. Also invited are national policy shapers/makers, responsible for the definition of the curriculum, student assessment, teacher training, school organisation framework definition, etc. There is no maximum participants' number fixed as it depends on national circumstances and the 'cascade' approach planned to pass the relevant information to secure enough and informed participation to the MOOC and classroom practice to be tested.

Some additional stakeholders not supposed to be in principle directly involved in the project may be invited and only participate to this introductory session for the words about Co-LAB to be spread.

Design and organisation

The launch workshop starts with a plenary session presenting Co-LAB to all participants (practitioners, policy-makers and possible other stakeholders). It aims at giving them a clear and concrete idea about the project (rational and intention behind it, main aims and outcomes, conceptual framework behind collaboration practices, components and steps, processes and tools, European/cross-country dimension, etc.), and outlining their respective role in general terms.

After this introductory session (around 60'/80' minutes, including questions and discussion), the participants are divided in two groups:

- the **practitioners group**, i.e. the ITE and CPD trainers, and school teachers; this session details the MOOC (content, pedagogical approach, calendar, etc.), the community of practice, the test of the scenarios through classroom practice, the benchmark and follow-up surveys, etc.; enough time is planned to answer participants' questions in detail and collect their first comments (specific needs, past experience in collaboration, possible obstacles already encountered or expected, etc.);
- the **policy-shapers/makers group**, i.e. policy shapers and/or makers at local, regional and/or central level, representing different responsibility areas potentially affecting the implementation of student collaboration and its assessment at school and system level (curriculum, student assessment, teacher training, school organisation, etc.); this session details the progress to be made throughout the workshops to progressively get a clear idea about the conditions for the regulatory and policy frameworks to support and mainstream student collaboration and its assessment; existing frameworks are looked at as the starting point; enough time is dedicated to answer participants' questions in detail and collect their first comments (past examples of adaptation of frameworks to support student collaboration, challenges encountered or to be expected, etc.).

After these parallel sessions (around 60'/80'), a plenary session (around 45'/60') concludes the workshop, presenting to all participants a summary of the discussions in each group, and the common and respective next steps for both groups.

Outcomes

The participants have a clear idea about what their participation comprises. Practitioners start to integrate the initiative in their 2016-17 school/academic year planning, understanding what will be achieved through it for themselves and beyond in their respective area of responsibility, and what collaborative practice is concretely about. Policy makers start looking at the policy and regulatory frameworks from the point of view of their potential impact on student collaboration and its assessment.

Participants may also be able to extend participation in the project by inviting more colleagues to participate.

Project partners know in more detail about the number of participants, as well as their profile and expectations, and can make any adjustments to national implementation according to needs and contexts.

The launch workshop is a core part of the implementation phase of Co-LAB in ensuring accurate and complete information as well as discussion between promoters and participants taking place from the very beginning.

The mid-term workshop in January-February 2017

Main objectives

This workshop takes place after the end of the MOOC (Nov/Dec 2016) and a few weeks only of first implementation of student collaboration activities and assessment in the classroom.

The aim of this mid-term workshop is twofold: to monitor the implementation of the project (are participants active enough? are specific problems encountered needing action from the organisers? etc.); and to start structuring and summarising feedback collected after implementation through the online community of practice.

At the mid-term workshop, the practitioners and policy-makers share and discuss early lessons learned, problems encountered, ideas for improvement, etc. both at classroom and system level. First exchanges about specific aspects of the policy and regulatory frameworks possibly enabling or hindering student collaboration and its assessment take place. Such feedback is put in perspective against the key findings of the analysis of the responses from practitioners to the benchmark surveys (taken at the beginning of the MOOC) and from policy makers (benchmark survey taken right before the launch workshop) that are presented and discussed.

Participation

Involving the same participants throughout the three country workshops is an important success factor for the trust between them to be developed and common understanding of the issues at stake to be nurtured and sustained.

This workshop remains nonetheless an opportunity to spread the words about Co-LAB at country level and enlarge its audience.

Design and organisation

The mid-term workshop starts with a plenary session summarizing the feed-back collected from practitioners about the MOOC, and the discussions from the community of practice (CoP) about the first attempts to implement student collaboration and its assessment since then (around 80'- 120', questions/answers and discussion included).

It is followed by two parallel sessions:

- a **practitioners group** session to discuss in more detail the feed-back from the MOOC and the Community of Practice, nuancing it and contextualising it (i.e. trying to relate enablers and obstacles encountered with existing policy/regulatory frameworks, and starting to imagine possible adjustments);
- a **policy-makers group** session to discuss the feed-back collected, mostly from the Community of Practice, also trying to relate enablers and obstacles encountered with existing policy/regulatory frameworks, and starting to discuss the adjustments needed and their feasibility.

After these parallel sessions (around 90'), a concluding plenary session (90') takes place presenting to all participants a summary of the discussions in each group, discussing it and detailing the common and respective next steps for both groups.

Outcomes

Practitioners see to what extent their feedback is in line with more general trends reported by other participants concerning obstacles, enablers, suggestions for improvement, and potential for student learning (student socio-economic background taken into account), they hear first reactions from policy-makers about the feasibility of adjustments to the regulatory framework.

Policy makers enrich their perception of what it means in practice to implement collaborative approaches and, on that basis, start thinking about possible supportive measures at system level.

Project partners know whether actions to boost active participation or improve some aspects of the online community of practice are needed; they also get a first impression of the extent to which needs from practice can be addressed by adjustment of the regulatory framework, concerning both collaborative student learning and its assessment – and what may be feasible in the short- mid- and long-term, etc.

The debriefing workshop in May-June 2017

Main aims

This workshop takes place after several months of implementation of student collaboration activities and assessment in the classroom. All practitioners should have gained enough experience about the implementation of collaborative practices in real teaching conditions to provide grounded feedback through different channels (follow-up survey, comments and discussion on the Community of Practice, etc.). The workshop is the moment to present to policy-makers the feedback about the aspects of the policy and regulatory frameworks possibly enabling and hindering such practice, as identify by practitioners. In that way, the debriefing workshop addresses the same points as the mid-term workshop but with an increased focus on recommendations for mainstreaming student collaborative practice and its assessment.

N.B.: After the debriefing workshops, policy makers are invited to complete the follow up survey.

Participation

Involving all the participants who participated to the process since the beginning is key when reaching this final country workshop to engage them in fully informed and open discussions leading to recommendations, based on mutual trust.

This workshop nonetheless also represents an important opportunity to discuss more broadly at country level the key findings of Co-LAB and the first recommendations to better align student collaboration practice and its assessment and policy/regulatory frameworks in areas concerned.

Design and organisation

The debriefing workshop starts with a plenary session (around 60') summarizing the feed-back collected from practitioners about implementation of collaborative practice and its assessment in the classroom, and is followed by several parallel sessions (around 90'-120') mixing practitioners and policy makers, each parallel session focusing in detail on a specific area for recommendation (ITE, CPD, student curriculum, school organisation, student assessment, etc.).

After these parallel sessions, a concluding plenary session (around 90') presents to all participants a summary of the discussions in each parallel group, and the recommendations proposed are commented.

Outcomes

Practitioners have a clear overview about obstacles commonly encountered, enablers that work, and are able to compare others' experiences with their own – part of their personal learning supporting reflexive practice. They are able to pass grounded and specific feedback to policy makers and to comment about further possible solutions to be proposed at system level.

Policy makers have the opportunity to discuss directly with practitioners the practical consequences of the adjustments they may introduce in the regulatory framework.

Project partners will have collected all the information (positive feedback as well as reported challenges) needed to produce their country report summarizing the key points made by participants (practitioners and policy makers) in the mid-term and debriefing workshops. These country reports will feed into the final cross-country evaluation of the project