Collaborative learning in practice

Highlights from the CO-LAB project
Final evaluation and recommendations report

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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 34 European Ministries of Education | Belgium (coordinator)

NCCA National Council for Curriculum and Assessment | Ireland

IBE Educational Research Institute | Poland

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

HITSA Information Technology Foundation for Education | Estonia

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1. Introduction

Both teaching and learning are going through a period of transition. Once a solitary profession where the teacher reigned supreme once the classroom door was closed, teaching is now increasingly seen as a joint enterprise bringing educators together to design learning experiences that ensure all young people fulfil their potential. Likewise, learning has shifted from a predominantly isolated activity to one that is more social and collaborative activity. Both trends can be seen as a response to a recognition that in a complex world the challenges facing humanity call for young people to enter society with skillsets in which the ability to be creative, solve problems, communicate effectively, and work collaboratively are valued as much as knowledge. Recognising this shift, the OECD has recently included collaborative problem-solving in international rankings alongside the more traditional tests of mathematics, science and reading (finding that girls perform better than boys[1]).

The term 'collaboration', whether by teachers or learners, is often used loosely. The following definition of collaborative learning, developed by the UNESCO International Bureau of Education, was adopted for the CO-LAB project:

> *Collaborative learning is a process through which learners at various performance levels work together in small groups toward a common goal. [It] is a relationship among learners that fosters positive interdependence, individual accountability, and interpersonal skills. Collaborative work means all the team members tackle the problems together in a coordinated effort.* [2]

While cooperative learning or group work may simply involve dividing a task among team members, collaborative learning involves:

- Joining efforts towards a common goal
- Interdependence
- Developing social competences as well as subject-related competences, especially communication
- Having a shared understanding of the problem and on the common goal through group discussion and negotiation
- Learner autonomy in organising the group's work and distributing roles. [3]

From this perspective, the role of the teacher can no longer simply be to transmit knowledge but to be a designer of problem-solving activities leading to a defined goal, supporting students as they work towards solutions:

> *Teaching must be viewed as a process of developing and enhancing students' ability to learn. The instructor's role is not to transmit information, but to serve as a facilitator for learning. This involves creating and managing meaningful learning experiences and stimulating learners' thinking through real-world problems. Yet, the task must be clearly defined and be guided by specific objectives.* [4]

The CO-LAB project focused on understanding what makes collaborative teaching and learning successful in the classroom. In national workshops stakeholders at all levels (teacher trainers, student teachers, teachers, head teachers, and policy makers) from six countries (Austria, Belgium-Flanders,

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[1] http://www.oecd.org/edu/pisa-2015-results-volume-v-9789264285521-en.htm
[2] http://www.ibe.unesco.org/en/glossary-curriculum-terminology/c/collaborative-learning
[3] http://www.ibe.unesco.org/en/glossary-curriculum-terminology/c/collaborative-learning
[4] http://www.ibe.unesco.org/en/glossary-curriculum-terminology/c/collaborative-learning

Estonia, Ireland, Poland, and Portugal) received training in designing and implementing collaborative learning activities and defined the conditions required to mainstream collaboration in teaching and learning. Teachers designed and implemented collaborative learning scenarios in their classrooms, feeding back their experience into further workshop discussions. This open multi-stakeholder dialogue was also evident in the CO-LAB MOOC (Massive Online Open Course), *Collaborative Teaching and Learning*[5], providing stakeholders with the opportunity for peer exchange on making collaborative teaching and learning a reality in the classroom, drawing on the practical resources and examples provided in the course.

An evaluation of the project activities was conducted by Agnieszka Rybińska and Małgorzata Zub of the Educational Research Institute, Poland and their findings were published in the *CO-LAB Final Evaluation Report*[6]. Survey research was the main source of information about the project participants' opinions and practices and about the changes thereof attributable to CO-LAB. Project participants completed two online surveys: a benchmark survey in September 2016 and a final survey in June-August 2017 after the last country workshops. The country workshops were a second source of data for the project evaluation; the country reports on the conditions for mainstreaming collaborative learning together with from notes from discussions led to conclusions about the enablers and obstacles for collaborative learning. A third source of evidence came from an analysis of comments posted by MOOC participants on five forums ('Padlets').

This document, written by European Schoolnet, draws extensively on that report and focuses on its main findings concerning the effect of CO-LAB on the views of teachers, school leaders, teacher educators and policy-makers, and on the range of obstacles to and enablers of collaborative learning identified by project participants.

Further details and publications related to the project can be found on the CO-LAB website.

2. Results

2.1.   Teachers' views on collaborative learning

Teachers reported that their **understanding of collaborative learning** had increased after taking part in the CO-LAB online course (MOOC), and almost one in five reported that students more frequently work in groups of three of more (even at the beginning of the project over 80 percent reported that this happened in at least one in two lessons and a higher percentage were positive about the benefits of collaborative learning). Many teachers' understanding of collaborative learning however was poor, even after the course. They often reduced it to project-based learning and confused it with cooperative learning or simply 'group work'. The notion that collaborative learning is a continuum from basic cooperation to fully collaborative. Teachers took time to move to more advanced versions of collaborative learning, and beginning with simpler cooperative activities in pairs or groups was a valuable step on the way, provided the teacher was aware of the level of collaboration at which students are working and why.

After the CO-LAB experience, teachers also considered that students now had more **autonomy** and responsibility for their learning than before. Most teachers associated collaborative learning with **project-based learning** leading to a product such as a presentation or publication; activities took place

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[5] www.europeanschoolnetacademy.eu/web/collaborative-teaching-and-learning_2nd-edition/course
[6] *CO-LAB Final Evaluation and Recommendations Report*, IBE, January 2017 - http://colab.eun.org/final-evaluation

both outside and inside the classroom, longer projects being mostly undertaken outside school. Some participants found that using **ICT** in collaborative learning was helpful, improving both student and teacher collaboration, for example working together on online documents, social media and virtual platforms (useful for peer feedback). ICT however is not essential for successful collaborative learning; it can perfectly well take place without ICT if there are obstacles to its use (e.g. poor infrastructure or low digital competence).

Managing collaborative learning is not without its challenges. One is **time**: over one in three teachers reported that students took more time to learn when working collaboratively and that short lessons were a constraint. A second challenge is knowing how collaborative learning helps achieve **subject**-related learning outcomes in addition to social, communication and other competences. A third is **ensuring that all students do their work**; the percentage of teachers reporting that some students don't do the work when working collaboratively rose from 39 percent in the pre-test survey to 43 percent at the end of the course MOOC and workshops. This may indicate CO-LAB enabled teachers to become more aware of the challenges inherent in collaborative learning. Some project participants observed that it is important for students to be familiar with collaborative learning in **early childhood** so that it becomes second nature later in their school career. It was recognised however that younger learners do not have the necessary skills for collaborative learning and that they need to learn to work together and moreover their teachers may not have the skills to teach them to collaborate.

Assessment is essential in collaborative learning but is also difficult. After the MOOC, a higher percentage of teachers (38 percent) than before (27 percent) agreed that it is difficult to assess individuals' contribution when they work collaboratively. Despite the difficulties, CO-LAB participants emphasised that assessing both task and collaboration, as individuals or the group as a whole, should be undertaken systematically using self- and peer-, formative and summative assessment, and using a range of tools and rubrics. Project participants found it important that teachers explain the **goals** both of the task (e.g. projects) and of the collaborative process and that students understand them fully. Having transparent goals like this is in line with formative assessment approaches and can lead to fair assessments.

2.2. Collaborative learning and the school community

CO-LAB had a positive impact on **collaboration between teachers**: 40% of teachers surveyed in the CO-LAB project declared that they collaborated more with other teachers as a result of the project. The project also raised participants' awareness of the need for teacher collaboration as a prerequisite for teaching students to collaborate.

Participants provided examples showing that some changes can be easily made in **school cultures**, for example school management and peers showing support for change and innovation. If such a climate is not in place even seemingly small changes such as changing classroom space are not simple. School culture therefore played its part in shaping individual attitudes.

Project participants emphasised the role of the **head teacher** in creating favourable conditions for collaborative learning and teacher collaboration. There were examples of head teachers who ensured that time for collaboration was regularly part of teams' work, as well as examples of schools where teachers tried to find time to collaborate without management support. There were also examples of principals open for innovation and collaboration initiated by staff, and on the other hand survey data showed that some head teachers were not ready for change. Head teachers supported collaborative learning methods in their schools most often by organising CPD, improving collaboration between

teachers and encouraging flexible learning spaces. As many as two-thirds of the surveyed head teachers made at least one of the 19 changes supporting collaborative learning as a result of CO-LAB, notably regular discussions with teachers about collaborative learning, making learning spaces more flexible to support collaborative learning and better monitoring of the use of collaborative learning by teachers. One third however made none. Head teachers were reluctant to modify timetables even though most project participants agreed that there is limited time for collaborative learning. In the benchmark survey only 16% agreed that they have enough time to use collaborative learning. Project participants emphasised that a 45- to 50-minute lesson was too short for collaborative activities. Yet after the project only 9% of head teachers reorganised timetables and even more rarely did they provide more teaching hours or modified educational programmes.

Some participants pointed to the importance of collaboration with **parents**, but some also noticed their attachment to conventional teaching methods and concerns that collaborative learning could compromise their children's final examination results. On the other hand, project partners noted that parents may be interested to see that their children work differently at home, e.g. a flipped classroom, and with time they may become convinced to accept 'non-standard' teaching methods.

2.3. Teacher education

Echoing TALIS 2013 findings, teachers need a sound training offer, examples on how to use collaborative learning with students and ready-to-use resources in order to use collaborative learning with confidence. Teachers surveyed in CO-LAB needed **practical examples of teaching based on the provisions of the statutory curriculum**, ready for use in school, such as lesson scenarios and rubrics for assessment, adjusted to education level and teachers' expectations of learners. Although 56% of representatives of teacher education institutions believed that there are many resources for collaborative learning, only 29% of teachers thought so, and even fewer agreed that there are many teacher training resources about collaborative learning. Either such resources are insufficient or they are not sufficiently disseminated.

Participants almost unanimously believed that collaborative learning is **not sufficiently covered in initial teacher education and continuous professional development**.

Survey results showed that participants considered there were more obstacles to collaborative learning after the project than before. Therefore, for collaborative learning to become widespread, teachers need **professional development in a range of areas**, including planning, self-organising, practical examples (especially in shorter activities), how to facilitate group processes and develop collaborative competences, ensuring the involvement of each student, assessment of the collaborative process and individual contribution, self- and peer-assessment. digital competence and giving and receiving feedback.

The project revealed the need for support for school principals, through for example individual management coaching designed specifically for head teachers, covering how to make the organization of the school work, time planning and learning spaces more supportive of collaborative learning, encouraging active learning, fostering openness and trust between teachers, ensuring collaboration between beginning and more experienced teachers, and developing more openness to teacher autonomy and innovative approaches, while increasing head teachers' skills in evaluating the work of teachers.

2.4. Policy-making

CO-LAB participants agreed that national **curricula** should include competences which are best developed through collaboration, such as seen in the Irish core curriculum which emphasises the development of social competences and explicitly mentions collaboration.

Few participants (18%) believed that final examinations assess competences which are best developed through collaboration. External examinations assess individual achievements, so are perceived more as an obstacle than an enabler for collaborative learning. Yet there are some interesting practices, such as making assessment of collaboration obligatory.

The changes that policy makers wanted to be made were **modification of curricula, examinations, assessment regulations and financial regulations**, so that all of these better support collaborative learning. The survey results however suggest that **collaborative learning is not a priority** for policy makers. An exception is Portugal, where collaborative learning is introduced into schools alongside other innovations. There are also countries where teamwork is widely recognised but where collaborative learning still needs proper promotion and dissemination. Without the support of policy makers there is the risk of collaborative learning being considered only as a fashion, instead of a method to develop social, as well as subject-specific competences.

Survey results show that as a result of CO-LAB, many **policy makers gained motivation and ideas** useful in their professional practice. The project also had a positive impact on participants' competences to support collaborative learning at school level; in particular it contributed to changes made by head teachers. CO-LAB was however less effective in meeting needs related to policy making than those related to practice, rarely allowing participants to become more competent in promoting collaborative learning at a higher policy level and having little impact on participants' ability to influence authorities and regulations: only 44% of those who wanted to find out how to promote collaborative learning among educational authorities had their expectations fulfilled. This was to be expected, as policy making was only addressed during workshops in which partners established a dialogue between policy makers and practitioners. While it is important to allow policy makers and practitioners hear each other's views, separate professional development is also necessary for policy makers. Lower results among policy makers may be associated with their other competences, which were not covered by CO-LAB, such as the ability of the "lower-level policy makers" to persuade and influence the actual decision makers. This may also be an issue of the openness of the decision-making systems and processes for suggestions and initiative from lower levels.

Responses to a follow-up questionnaire following the CO-LAB workshops revealed that **policy makers became more aware of the problems teachers face implementing collaborative learning and teachers in turn became more conscious of the flexibility of some core curricula** which do in fact allow for innovative teaching and are more flexible than teaching manuals or textbooks, rigidly followed by some teachers.

3. Obstacles and enablers

Arising from the analysis of surveys and feedback from participants, this section highlights key factors hindering and enabling collaborative learning in schools. The publication *Integrating collaborative learning in policy and practice: CO-LAB's conclusions and recommendations* goes into more detail on how to implement collaborative learning in education systems and schools.

3.1. Teachers

Challenges

- A narrow interpretation of the **curriculum**; a perception of collaboration as an add-on, keeping rigidly to the textbook;

- **Time**: preparation of collaborative learning activities is more time consuming than preparation to conventional teaching;

- **Teachers**; readiness and capacity to change, a lack of creativity in thinking how to redesign classroom activities, thinking of new ideas, fear and uncertainty, difficulties in being open to feedback, unwillingness to collaborate with other teachers, fear of "losing" their subject in cross-curricular activities;

- **Students**: how to engage every student equally and fully, building on each learner's strengths; resistance to collaboration: collaborative learning is best introduced early and with small steps, egoism (they do not participate), fear of being embarrassed, bullying;

- Difficulty of **assessment**: making it visible and fair, peer assessment is not widely accepted.

Enablers

- Good knowledge of core **curriculum** and of the possibilities to use collaborative learning to implement it and achieve subject-related learning outcomes; awareness of the need to develop students' social competences;

- **Accepting change**: change in the role of the teacher to coach and facilitator, making space for students' responsibility and autonomy e.g. in organisation of group work and choice of methods;

- **Managing learning**: careful planning of work and time by the teacher, including time for assessment of collaborative learning activities, knowledge of the goals by both teacher and students, clarity on learners' role and responsibility;

- **Introducing collaborative learning**: start with easier cooperative or collaborative tasks, so that students have time to get used to the new method; work in couples as well as in groups of 4-5 students; use collaborative or at least cooperative learning in shorter activities in regular lessons, linked with problem-based learning and problem-solving skills; identify the principles of collaboration (the 21CLD Rubric identifies the characteristics of collaborative learning and it helps to put it into practice); not overdoing the frequency of collaborative learning. A variety of forms and methods of work are needed;

- Identification of **students'** needs and abilities; diversity is very important and allowing students to form groups themselves is not always optimal - think which students to put together, because this affects group dynamics, individual effort and peer learning;

- **Peer teaching**: inclusion works well if students help each other and peers help weaker students but this requires teachers' competence to be aware of and facilitate group processes so that students learn to collaborate with different people and to solve conflicts;

- Arrangement of the **classroom space** so that it facilitates collaborative learning

- **Technology** can support collaboration (e.g. collaboration and feedback on virtual platforms) and may help overcome some of the timing issues (e.g. saving group results on Padlet);

- Teachers' and students' competence to perform fair **evaluation**: self-evaluation, peer assessment, teacher's formative assessment and summative assessment, assessment of individual contribution to the outcome as well as of collaboration.

3.2. School community

Obstacles

- **Teachers**: competition between teachers and lack of peer help, the feeling of being endangered by potential feedback – related to low self-esteem and lack of trust in others as well to non-supportive school culture, concerns about more complicated organisation of lessons, adherence to teachers' "own subject", fear of not fully teaching the core curriculum;

- **Timetable**: collaborative activities are difficult or impossible in 45-50 minute lessons,

- **Regulations**: rigid interpretation of the provisions of educational law, e.g. on core curriculum, lesson schedules, etc., mainly by school principals and leading bodies (school owners);

- Focus on **examination results** and the school's position in rankings;

- **School infrastructure**: insufficient space, limited access or the lack of habit to use such spaces as the library, corridor etc.; inadequate ICT infrastructure

- Resistance of some **parents**, who worry about the examination results of their children and doubt if collaborative learning is effective.

Enablers

- **Leadership**: the head teacher's involvement and support is essential to collaborative learning, teacher collaboration and change, from simply reorganising space or use of a new technique to more complex changes which require the involvement of the school community, like integrating collaborative learning into education planning and assessment.
- **Teacher collaboration**: valuing the diversity of teachers' experience and ideas, support for other teachers, including junior teachers, readiness to reflect on one's own teaching practice and receive feedback, ability to give constructive feedback (recording lessons may help teachers to seek and get feedback on their work
- **School community**: teachers, parents and school administration should understand the importance of collaboration and set a good example for students, working with parents is essential, because (among many other reasons) they know their children best, include students in the collaborative culture of the school, listening to them (e.g. speaking about their experiences of collaborative teaching, learning and assessment, co-operation of schools with other schools and organisations, e.g. in projects.

3.3. Teacher education

Obstacles

- **Competence development**: some competences necessary for collaborative learning are not sufficiently covered in ITE and CPD, e.g. understanding the collaborative approach, handling group processes, introducing collaborative learning step by step from the beginning, assessing collaborative learning, applying technology;

- **Digital competence**: the ICT skills of some teachers are insufficient for technology-supported collaborative learning;

- **Resources** to support collaborative learning are either insufficient (although they are available) or poorly disseminated;

- **Initial teacher education** does not prepare teachers sufficiently to use collaborative teaching methods.

Enablers

- Providing **professional development** on broadly understood group work/cooperative learning;

- Making educational **resources** more available such as scenarios for cooperative or collaborative learning.

3.4. Educational policy

Obstacles

- **Curriculum:** social competences, including collaborative skills, are often absent from curricula, there are difficulties in translating general objectives to specific objectives, school syllabuses and practice; curricula include so many requirements that there is not enough time for teachers to use more time-consuming

- **Assessment**: summative assessment is mostly individual, especially final examinations. The requirements of the examinations are one of the key factors shaping the work of the schools as well as expectations towards the schools;

- **Tackling systemic issues**: Although policy makers generally agree that structural changes are needed (in the core curricula, inspection regimes, examinations, assessment regulations, financial regulations and in initial teacher education), survey results show that these changes are not widely made to support collaborative learning. Policy makers focus on helping teachers to use collaborative learning in existing educational systems through improving their competences with training, advice and educational resources;

- **Too much change**: 'initiative overload' and many other changes to accommodate, teachers and schools don't find the time for collaborative learning, further systemic changes would not always be welcome, collaboration is perceived by teachers as of secondary importance for educational authorities;

- Lack of specific **funding** for collaborative learning (or lack of visibility of what is produced with it, e.g. resources, training).

Enablers

- **Rethinking the curriculum**: include social competences and those that are best developed through collaboration, at least at the level of general objectives;
- Making it clear that the **curriculum is actually more flexible** than perceived by some practitioners, allowing space for collaboration and the development of social competences;
- **Supporting school autonomy**: giving head teachers independence in school management and different approaches to assessment
- **Encouraging partnerships:** co-operation in national and international projects can open eyes and be a stimulus for collaborative learning.

4. Conclusion

The evaluation of the CO-Lab project indicate that successfully introducing collaborative learning in schools is a complex process involving all stakeholders and a whole set of enabling and inhibiting factors.

Teachers found that collaborative learning can give students more autonomy and that ICT can support both student and teacher collaboration. They found that managing collaborative activities in the classroom can be a challenge, notably the typical short lesson times, as students seem to need more time to complete tasks and projects, ensuring that all students contribute to group tasks, making goals clear (both learning outcomes and social and other competences) and assessing work done collectively and individually.

The involvement and support of head teachers is crucial to bring about whole-school teacher and student collaboration and change, from simply reorganising space or use of a new technique to more complex changes related to integrating collaborative learning into planning and assessment.

It is essential to keep parents informed and on-side, dealing with their legitimate worries that a new approach to learning might harm their children's prospects in external examinations and showing how they can be involved in helping children learn through flipped learning tasks.

Collaborative learning was felt by project participants to be inadequately covered in initial and continuing teacher education. Teachers need, above all, practical examples and guidance on planning, self-organisation, assessment (including self- and peer-assessment), digital competence and giving and receiving feedback from other teachers.

The evaluation found that collaborative learning is not a policy priority in countries in CO-LAB. For collaborative learning to become more widespread, project participants felt that national curricula should be modified to include competences best developed through collaboration and regulations covering curricula, examinations, assessment regulations and finance could be revised so that they better support collaborative learning.