

COOPERATIVE LEARNING IN HIGHER EDUCATION: REPORT OF AN EXPERIENCE

APRENDIZAGEM COOPERATIVA NO ENSINO SUPERIOR: RELATO DE UMA EXPERIÊNCIA

APRENDIZAJE COOPERATIVO EN LA EDUCACIÓN SUPERIOR: INFORME DE UNA EXPERIENCIA

Vera Lúcia Messias Fialho CAPELLINI¹

Marcia Miranda Silveira BELLO²

Verônica Lima dos REIS³

ABSTRACT: Cooperative Learning (CL) is a teaching and learning methodology that aims to overcome the traditional through cooperative activities; still little adopted in higher education, presupposes the formation of heterogeneous groups. This manuscript aims to report the experience lived in the discipline “Teaching Practice in Early Childhood Education” of a Pedagogy undergraduate teaching degree class using the CL methodology. 35 students from São Paulo State University - UNESP, Bauru/SP/Brazil enrolled in the 2nd year participated. The procedures required: CL alignment; formation and self-appointment of work teams; blog and logo creation; routine definition of classes; formative assessment. Each work team was provided with a notebook. The activities developed through the CL promoted: a) teacher education as recommended in the National Curriculum Guidelines for initial higher education (Resolution no. 02/2015); b) use of technological innovations; c) articulation with the coordinators so that all Teaching Degrees offered at UNESP complied with the Complementary Curriculum Guidelines for the Formation of Teachers for Basic Education in the Undergraduate Pedagogy, Normal and Teaching Degree Courses (CEE Deliberation no. 154/2017). It is considered that the CL contributed to the formation of all actors involved through participatory, collaborative and supportive pedagogical actions - inclusive perspective -, preparing them for the challenges presented in the educational field.

KEYWORDS: University education. Pedagogy. Cooperative learning.

RESUMO: *A Aprendizagem Cooperativa (AC) trata-se de uma metodologia de ensino e aprendizagem que visa superar a tradicional por meio de atividades cooperativas; ainda pouco adotada no ensino superior, pressupõe a formação de grupos heterogêneos. Este manuscrito objetiva relatar a experiência vivenciada na disciplina “Prática de Ensino na Educação*

¹ São Paulo State university (UNESP), Bauru – SP – Brazil. Professor in the Department of Education, Postgraduate in Developmental and Learning Psychology, Postgraduate in Teaching for Basic Education, College of Sciences. PhD in Special Education (UFSCAR). ORCID: <http://orcid.org/0000-0002-6238-8624>. E-mail: vera.capellini@unesp.br

² Aldete Maria Alves College (FAMA), Iturama – MG – Brazil. Professor of the Department of Education. ORCID: <https://orcid.org/0000-0001-5136-1947>. E-mail: marciamsbello@gmail.com

³ São Paulo State University (UNESP), Bauru – SP – Brazil. Post-Doctoral Student - CAPES Scholarship - Post-Graduation in Developmental and Learning Psychology, College of Sciences. ORCID: <https://orcid.org/0000-0003-0681-0015>. E-mail: veronica.reis@unesp.br

Infantil” de uma turma de licenciatura em Pedagogia utilizando a metodologia de AC. Participaram 35 alunos(as) da Universidade Estadual Paulista “Júlio de Mesquita Filho” - UNESP matriculados no 2º ano. Os procedimentos demandaram: alinhamento quanto à AC; formação e auto nomeação das equipes de trabalho; criação de blog e logo; definição de rotina das aulas; avaliação formativa. Foi disponibilizado a cada equipe de trabalho um notebook. As atividades desenvolvidas por meio da AC promoveram: a) formação docente conforme preconizada nas Diretrizes Curriculares Nacionais para a formação inicial em nível superior (Resolução nº 02/2015); b) utilização de inovações tecnológicas; c) articulação junto aos coordenadores para que todas as Licenciaturas oferecidas na UNESP atendessem às Diretrizes Curriculares Complementares para a Formação de Docentes para a Educação Básica nos Cursos de Graduação de Pedagogia, Normal Superior e Licenciaturas (Deliberação CEE nº 154/2017). Consideram-se que a AC contribuiu para a formação de todos os atores envolvidos por meio de ações pedagógicas participativas, colaborativas e solidárias – perspectiva inclusiva –, preparando-os para os desafios que se apresentam no campo educacional.

PALAVRAS-CHAVE: Ensino superior. Pedagogia. Aprendizagem cooperativa.

RESUMEN: *El aprendizaje cooperativo (AC) es una metodología de enseñanza y aprendizaje que tiene como objetivo superar lo tradicional a través de actividades cooperativas; aún poco adoptado en la educación superior, presupone la formación de grupos heterogéneos. Este manuscrito tiene como objetivo informar la experiencia vivida en la disciplina “Práctica de enseñanza en educación de la primera infancia” de una clase de pregrado de pedagogía utilizando la metodología de AC. Participaron 35 estudiantes de la Universidad Estatal de São Paulo “Júlio de Mesquita Filho” - UNESP matriculados en el 2º año. Los procedimientos requeridos: alineación AC; capacitación y auto cita de equipos de trabajo; blog y creación de logotipos; definición rutinaria de clases; evaluación formativa. Cada equipo de trabajo recibió un cuaderno. Las actividades desarrolladas a través de la AC promovieron: a) la formación del profesorado como se recomienda en las Directrices Nacionales del Currículo para la educación superior inicial (Resolución No. 02/2015); b) uso de innovaciones tecnológicas; c) articulación con los coordinadores para que todos los títulos de licenciatura ofrecidos en UNESP cumplan con las Directrices curriculares complementarias para la formación de docentes de educación básica en los cursos de pregrado de pedagogía, normal y de pregrado (Deliberación CEE No. 154/2017). Se considera que la AC contribuyó a la formación de todos los actores involucrados a través de acciones pedagógicas participativas, colaborativas y de apoyo, perspectiva inclusiva, preparándolos para los desafíos presentados en el campo educativo.*

PALABRAS CLAVE: Enseñanza superior. Pedagogía. Aprendizaje cooperativo.

Introduction

This manuscript portrays Cooperative Learning (CL) in Higher Education, with the prerogative that “narrating the experience involves reviewing concepts and practices and

rescuing personal and professional trajectories, which is essential for the professional formation of teachers and researchers”⁴ (FERNANDES; PRADO, 2008, p. 6).

CL is characterized by the use of cooperative activities in heterogeneous groups, constituting an alternative to overcome the traditional methodology, which levels students and homogenizes teaching. According to Pujólas (2003), this type of group work presents itself as a resource to meet diversity and enable the learning of different students, since it has as a principle the inclusion of all considering the uniqueness of each one.

Researchers such as Stendler, Damrin and Haines (1951) report greater effectiveness of cooperative work in relation to individual work, including demonstrating positive effects on the social conduct of individuals generated by cooperation (LOPES; SILVA, 2009).

In this perspective, researchers Johnson, Johnson and Smith (1998) approach the theory of social interdependence, affirming cooperation as a positive interdependence that “results in promoting interaction since individuals stimulate and facilitate mutual efforts to learn”⁵ (p. 4) and complement:

Jean Piaget taught that when individuals cooperate as to the environment, a healthy socio-cognitive conflict occurs, which creates a cognitive imbalance that, in turn, stimulates the ability to position oneself in perspective as well as stimulates cognitive development. Lev Vygotsky believed that cooperative efforts to learn, understand and solve problems are essential to build knowledge and transform joint perspectives into internal mental functioning. For both Piaget and Vygotsky, working cooperatively with more capable partners and instructors results in cognitive development and intellectual growth (JOHNSON; JOHNSON; SMITH, 1998, p. 4).⁶

Less systematic applications and references to the concepts of cooperation have already existed, according to Lopes and Silva (2009), since the 2nd century BC. It is possible to find principles of CL in the book of Ecclesiastes in the Bible and in the Slope (compilation of the Torah), as well as in the different periods of history with thinkers, philosophers and writers such as Socrates, Quintilian, Seneca, Comenius and the craftsmen of the Middle Ages, who

⁴ “narrar o vivido envolve rever concepções e práticas e o resgate de trajetórias pessoais e profissionais, o que se mostra fundamental para a formação profissional das professoras e dos pesquisadores”

⁵ “resulta em interação promotora visto que os indivíduos estimulam e facilitam os esforços mútuos para se aprender”

⁶ Jean Piaget ensinou que, quando os indivíduos cooperam quanto ao ambiente, um conflito sócio-cognitivo saudável ocorre, o qual cria um desequilíbrio cognitivo que, por sua vez, estimula a habilidade para se posicionar em perspectiva bem como estimula o desenvolvimento cognitivo. Lev Vygotsky acreditava que os esforços cooperativos para se aprender, entender e resolver problemas são essenciais para construir o conhecimento e transformar perspectivas conjuntas em funcionamento mental interno. Para ambos, Piaget e Vygotsky, trabalhar de modo cooperativo com parceiros e instrutores mais capazes resulta em desenvolvimento cognitivo e em crescimento intelectual (JOHNSON; JOHNSON; SMITH, 1998, p. 4).

used collaboration in the teaching-learning process in their teachings and considered it important.

The CL had its diffusion in different countries in different ways. In England, pedagogues Andrew Bell (1753) and Joseph Lancaster (1778), published works in the 18th century extolling what was called the Reciprocal or Mutual Teaching Method. In the United States, the first *Lancasterian* school was founded in the early 19th century, spreading CL in the American continent. In Portugal it was within the military schools, with the objective of teaching soldiers to read and write, that this proposal spread and ended up being transformed into a Mutual Teaching Method by João Crisóstomo de Couto e Melo (LOPES; SILVA, 2009).

North American philosopher and educator John Dewey highlighted, at the end of the 19th century, the social importance of CL, given that it offers the formation of habits and skills necessary beyond school life. However, it was Willian Heard Kilpatrick, uniting the principles of CL and Project Pedagogy, who disseminated these ideas, reinforcing the need for the student to learn to live in society (BIN, 2012; KNOLL, 1996; 1997).

However, the use of CL declined and lost space for competitive and individualistic methodologies as a consequence of the serious economic crisis of the 1930s. Several commercial interests began to emerge and influenced the use of competitive techniques, almost entirely, forming up to a League of Liberty to sell interpersonal competition among educators (LOPES; SILVA, 2009).

The CL method and its techniques were losing ground to the competitive methodology, which started to be incorporated in the formation of teachers so that, currently, it occupies up to 95% of the time in North American schools, as highlighted by Lopes and Silva (2009) based on the works of Morton Deutch, Muzafer Sherif and Stuart Cook, from the 1960s.

Despite this, some thinkers continued to publish their work with a focus on CL, and in the mid-1970s, interest in this methodology grew again. Which is not strange, because

[...] the ability to work cooperatively has become one of the factors that most contributed to the survival of our species. Throughout human history, the individuals who organized and coordinated their efforts to achieve a common goal, have been the most successful in practically the entire human enterprise (JOHNSON; JOHNSON, 1990, p. 23).⁷

⁷ [...] a capacidade para trabalhar cooperativamente tornou-se um dos fatores que mais contribuíram para a sobrevivência da nossa espécie. Ao longo da história humana, os indivíduos que organizavam e coordenavam os seus esforços para alcançar uma meta comum, foram os que tiveram maior êxito em praticamente toda a empresa humana (JOHNSON; JOHNSON, 1990, p. 23).

There are two main lines of thinking for CL in Europe: 1) learning to cooperate as an educational goal, and; 2) learning through cooperation. In the first line, a special emphasis is placed on training social skills such as social cognition (LIESHOUT, 1977 *apud* OVEJERO, 1990), which reaches Britain the most. In the second, the emphasis is on the relation between cooperation and intelligence, especially on the part of the so-called Geneva School.

According to Slavin (1995), *JenaPlan* was opened in Germany, a school that organized students into study groups, designed by Peter Peterson. In France, scholars such as Roger Cousinet, Antonio Sérgio, M. Profit and Célestien Freinet used the cooperative methodology contributing to the emergence of School Cooperatives, which aimed to unite the school with social life.

According to Slavin (1995), the United States is currently the country where the CL is most implemented with Johnson and Johnson (1990), Sharan and Sharan (1992), among others, followed by different countries in the world with emphasis on Israel, Canada and Australia. The author states that CL offers many benefits in relation to current methodologies, among them the increase of students' academic success, the improvement of their interpersonal relationships and their self-esteem, in addition to a better acceptance of students with learning difficulties by the rest of the class.

So, why is it that schools, especially Brazilian ones, continue with pedagogical practices that do not value cooperation? Why don't special education teachers work collaboratively with ordinary class teachers? In addition to these questions, why in teacher formation courses, which are almost always traditional, students (with rare exceptions) remain lined up, “the mouth of one student on the back of the other”, with methodologies focused exclusively on the teacher?

It is notable that we cannot act unconnected with other colleagues from other areas of the curriculum, so as not to incur in continuing to reproduce a clinical model of specialized educational assistance to students targeting special education⁸ (BRASIL, 2008), but now in the ordinary school, not really guaranteeing the schooling of all students, especially those who need curricular adjustments in the content, that is, in addition to the methodologies and resources, due to serious commitments that some deficiencies impose.

⁸Art. 58 - Special education means, for the purposes of this Law, the type of school education offered preferably in the regular school system, for students with disabilities, global developmental disorders and high skills or giftedness. Wording of law no. 12,796, of 2013. Available: http://www.planalto.gov.br/ccivil_03/_Ato2011-2014/2013/Lei/L12796.htm#art1. Access: July 2016.

In this sense, we understand the relationship between CL and Special Education in an Inclusive Education perspective, according to Pujólas (2003), who presents CL as a philosophy for an inclusive class, that is:

‘Filosofía’ del aula inclusiva: Se trata de sensibilizar al alumnado y hacer crecer en él la vivencia de los valores implícitos a la inclusión así como la satisfacción por vivir estos valores. Se trata de trabajar con los alumnos “lemas” parecidos a los siguientes: Todos aprendemos de todos”. “Aquí cabe todo el mundo” “Tengo derecho a aprender de acuerdo con mi capacidad. Esto quiere decir que nadie. Puede poner me un mote por mi forma de aprender”. “Tengo derecho a ser yo mismo. Nadie puede tratarme de forma injusta debido al color de mi piel, a mi peso, a mi estatura, por el hecho de ser niño o niña, ni debido a mi aspecto” (PUJÓLAS, 2003, p. 6).

Collaboration is and has always been very relevant as a collaborative/cohesive teaching strategy - a strategy of pedagogical action in special education in which a common educator and a special educator share the responsibility for planning, teaching and evaluating a heterogeneous group of students, in a way to favor the learning of all students (CAPELLINI, 2004). Thus, CL as a teaching methodology for the common class can become a possibility, in which differences are valued and everyone can learn.

According to Pujólas (2003), CL, in addition to being a method, must be a content learned by students. In addition, it fosters an inclusive school, as the tasks performed by students are adapted to their abilities; the tasks are varied and require different levels and skills for everyone to participate; activities are planned so that everyone participates, that is, the activity does not end without everyone having finished their part; peer support is essential.

This perspective is in line with the assumptions of Booth and Ainscow (2012), when they state that school inclusion implies restructuring educational culture, policies and practices, so that they can meet the diversity of students, that is, inclusion refers to learning and the participation of all vulnerable students who are subject to exclusion, not only those with disabilities or labeled as having special educational needs, but also those who, for having great learning difficulties, are left out.

We live in a new paradigm in which the old school model, with its conservative structure and organization, does not meet the demands of contemporary times. Therefore, we believe that school inclusion aims to improve schools, both in relation to the faculty and students.

In this perspective, we ask: can the curriculum without any adaptation be accessed by all students, even those with more severe disabilities? Should schools flex, fit, adapt the curriculum? How to operationalize what great researchers such as Célestien Freinet, Jean Piaget, John Dewey, Lev Vygotsky, among others have already demonstrated, that is, what to

actually do to break with school models that do not meet heterogeneity and which pedagogical practices that value the uniqueness can we implement? We do not aspire to answer these questions, but they were the basis for the experience reported here.

Considering that one of the factors that has negatively impacted teacher formation is the dissociation between theory and practice and, often, the lack of organization of pedagogical work, we believe that it is necessary to innovate in our teacher formation practices, or that is, break with the directives, content, individual practices and with the curriculum organized in a disciplinary way, aiming that future teachers act in a way that values the autonomy, participation, collaboration of their students and also among their peers.

It is in this sense that the formation of teachers based on CL is relevant and, at the same time, innovative, since it is a practice still little adopted by teachers.

Thus, this manuscript aims to report the experience lived when developing the teaching plan of the **Teaching Practice in Early Childhood education** of a class of Pedagogy teaching degree using the CL methodology.

Development

The experience reported here occurred in the 2nd semester of 2015 in the 2nd year class of Pedagogy Degree (night time) at São Paulo State University - UNESP/Bauru during the course “Teaching Practice in Early Childhood Education”. At the time, all 35 students in the class were involved in a work coordinated by the teacher responsible for the discipline (first author of this manuscript) and by the master's student who worked as an intern in teaching in higher education (second author of this manuscript). The contents worked were:

1. The teaching-learning process in Early Childhood Education

- The construction of knowledge in early childhood.
- The interaction in the child's development.
- Child-child interactions, adult-child interactions and adult-adult interactions in daycare and preschool.
- The importance of playing in child development and as an axis of pedagogical proposals.

2. Organization, Planning and Management of Teaching Work in Early Childhood Education

- Organization of environments that promote the development of the child and the knowledge of themselves and the world.
- Routine in collective education and care institutions.
- Adaptation processes and projects in daycare and preschool.
- Pedagogical proposals for early childhood education institutions: *High/Scope*, *Ecológica*, Reggio Emilia, Child Association.
- Curriculum References for Early Childhood Education and other Brazilian proposals.
- Health and nutrition in daycare.
- Formation of child education professionals.

3. Articulation of Pedagogical Practice with the guiding axes of the curriculum, generating themes, disciplines and didactic activities.

- Pedagogical Practice and Human Development.
- Pedagogical Practice, Education and Society.
- Pedagogical Practice and the relation with Education and Communication.
- Pedagogical Practice and School Knowledge.

Reading of the book “The child who plays more learns more: the importance of playful activity for children's cognitive development”⁹.

The adoption of CL in the approach of these contents excelled in cooperation at the expense of competition, as well as respect and appreciation of the other, since, in this perspective, one learns from the other and, as everyone needs to participate, they learn that the team is strengthened and achieves the goals if everyone develops.

The work was started by agreeing with all the students the proposal for the new methodology, subsidized by the reading and conversation circle of the text “*El aprendizaje cooperativo: algunas ideas practicas*” (PUJÓLAS, 2003). Was also made available as a complementary reading for the appropriation of the proposal the text “*Aprendizaje Cooperativo: Guías rápidas para nuevas metodologías*” (UNIVERSIDAD POLITECNICA DE MADRID - UPM, 2008).

The class was divided into six work teams that were called by them: Swarm of Ideas, O Little Bird, Pedagogical Quilt, Class Hit the Road, Teaching and Hands-on. It was suggested

⁹ POZAS, D. **Criança que brinca mais aprende mais**: a importância da atividade lúdica para o desenvolvimento cognitivo infantil. Rio de Janeiro: Editora SENAC, 2012.

that they create a blog¹⁰ illustrated by a logo defining the team, for this purpose, a notebook was made available to each team for use during the course of the course.

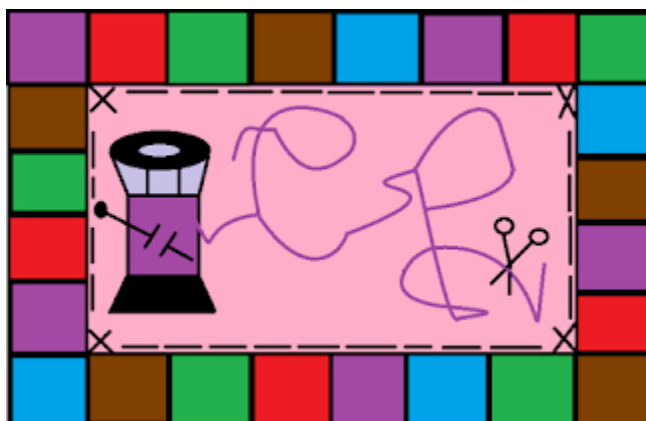
The choice of the team's name portrayed the motivation of each team during its initial formation process in Pedagogy, as an example we present the text of the team “I Little Bird”, available on your blog:

In 1978, the Brazilian Academy of Letters, for the third time, denied Mario Quintana a seat at the institution. Quintana, a poet and writer from Rio Grande do Sul, wrote in response one of his best-known poems, the “Poeminha do Contra”:

*“All those who are there
Clogging my path,
They will pass ...
I little bird! ”¹¹*

The logo created by each team portrays the formation process in higher education, as we can see in Figure 1.

Figure 1 - logo of the “Pedagogical Quilt” team.



Source: Team Blog “Pedagogical Quilt”

The routine of working days involved: 1) singing; 2) read or recite poetry; 3) elaborate the team plan for that work day according to the activity proposed by the teacher; 4) develop

¹⁰ It is a web page that is presented chronologically and in paragraphs. The blogs of each team were linked to the teacher's blog, as can be seen in: <http://aprendizagemcooperativaveracapellini.blogspot.com/?m=0>. Access: Jan. 2018.

¹¹ *Em 1978 a Academia Brasileira de Letras, pela terceira vez, negou a Mario Quintana uma cadeira na instituição. Quintana, poeta e escritor gaúcho, escreveu em resposta um de seus mais conhecidos poemas, o “Poeminha do Contra”:*

*“Todos esses que aí estão
Atravancando meu caminho,
Eles passarão...
Eu passarinho!”*

the work plan; 5) produce narratives about their own memories, related to the activity(ies) of the day.

Singing was established based on the text “Initial Teacher Formation for Basic Education: a radical (re)vision” (MELLO, 2000), which explains:

The professional formation situation of the teacher is inversely symmetrical to the situation of his professional practice. When he prepares to be a teacher he lives the role of student. The same role, with due age differences, that your student will live with as a teacher. For this reason, as simple and obvious as it is difficult to bring about the ultimate consequences, teacher formation needs to take as a reference point from which to guide the institutional and pedagogical organization of courses, the inverted symmetry between the situation of professional preparation and the future exercise of the profession (MELLO, 2000, p. 8).¹²

As for poetry, the poet Affonso Romano de Sant'Anna says that it “sensitizes any human being. It is the speech of the soul, of the feeling. And it needs to be cultivated” (n/d), something that can also be scientifically stated, according to Silva and Jesus (2011):

Teachers should work with poetry with their students because this activity has been indicated as one of the most effective means to work on the development of the sensory perception skills of children and adolescents, of the aesthetic sense and of their reading and symbolic skills (SILVA; JESUS, 2011, p. 32).¹³

We consider such routines to be relevant to teacher education, since when aiming for them to sing or read poetry to their students in the future, it is necessary that they have learned how to do this. After all, “no one facilitates the development of what one has not had the opportunity to develop in himself. Nobody promotes the learning of contents that they do not master or the constitution of meanings that they do not have or the autonomy that they did not have the opportunity to build”¹⁴ (MELLO, 2000, p. 9).

As pointed out by Elbaz-Luwish (2002) and Souza (2006), the production of narratives and biographical methods in teacher education have been increasingly used. In recent years, the

¹² A situação de formação profissional do professor é invertidamente simétrica à situação de seu exercício profissional. Quando se prepara para ser professor ele vive o papel de aluno. O mesmo papel, com as devidas diferenças etárias, que seu aluno viverá tendo a ele como professor. Por essa razão, tão simples e óbvia quanto difícil de levar às últimas conseqüências, a formação do professor precisa tomar como ponto de referência a partir do qual orientar a organização institucional e pedagógica dos cursos, a **simetria invertida** entre a situação de preparação profissional e o exercício futuro da profissão (MELLO, 2000, p. 8).

¹³ Os professores devem trabalhar com a poesia com seus alunos porque esta atividade vem sendo indicada como um dos meios mais eficazes para trabalhar o desenvolvimento das habilidades de percepção sensorial da criança e do adolescente, do senso estético e de suas competências leitoras e simbólicas (SILVA; JESUS, 2011, p. 32)

¹⁴ “ninguém facilita o desenvolvimento daquilo que não teve oportunidade de desenvolver em si mesmo. Ninguém promove a aprendizagem de conteúdos que não domina nem a constituição de significados que não possui ou a autonomia que não teve oportunidade de construir”

narrative has been constituted in a space for professional formation, since, in written or oral form, the subject reveals himself when expressing his feelings, his truths, his thoughts about himself and about the chosen profession.

Table 1 presents examples of activities developed in the discipline.

Table 1 - Examples of activities developed in the discipline.

Singing	<i>Terezinha de Jesus</i>	Sung and danced throughout the room, including the teacher and intern.
Poetry	<i>Mãos Dadas</i> (Poem of the work <i>Sentimento do mundo</i>)	<p><i>I will not be the poet of a decrepit world. I will not sing the future world either. I am stuck to life and I look at my companions. They are sullen but have high hopes. Among them, I consider the enormous reality. The present is so great, let's not go apart. Let's not get too apart, we go hand in hand.</i></p> <p><i>I will not be the singer of a woman, of a story, I won't say the sighs at dusk, the landscape seen from the window, I will not distribute narcotics or suicide cards, I will not flee to the islands or be kidnapped by seraphim. Time is my subject, the present time, the men present, the present life.</i></p> <p><i>(Carlos Drummond de Andrade)¹⁵</i></p>
Reading	Part III - Enabling environments.	MOYLES, J. R. <i>et al.</i> Fundamentos da educação infantil: enfrentando o desafio. Porto Alegre: Artmed, 2010.
Movies	Education: the importance of stimuli in early childhood	Available: https://youtu.be/0EMFNPHwRbU
Production of a collective team text about what teachers should consider to organize work in early	Class of 07 May 2015.	<p>Construction of a collective text on Didactics based on remembering and memories, relating them to the film “<i>Como estrelas na terra</i>” (“Like Stars on Earth”) - Team Hit the Road</p> <p>For the preparation of this text, we use the chronological aspect as a parameter, so we will start with the memories of our friend <i>Hit the Road</i> ¹⁶, born on 22 September 1967, in São Paulo, where at the age of 8 he enrolled alone, in a period marked by the strength of the dictatorship in our country.</p> <p>From that time, he fondly remembers the June festivities in which, in addition to sweets, there were spaces for games, such as the “<i>cadeia</i>”¹⁷ (which he remembers with great enthusiasm).</p>

¹⁵ *Não serei o poeta de um mundo caduco.*

Também não cantarei o mundo futuro.

Estou preso à vida e olho meus companheiros.

Estão taciturnos mas nutrem grandes esperanças.

Entre eles, considero a enorme realidade.

O presente é tão grande, não nos afastemos.

Não nos afastemos muito, vamos de mãos dadas.

Não serei o cantor de uma mulher, de uma história,

não direi os suspiros ao anoitecer, a paisagem vista da janela,

não distribuirei entorpecentes ou cartas de suicida,

não fugirei para as ilhas nem serei raptado por serafins.

O tempo é a minha matéria, do tempo presente, os homens presentes, a vida presente.

(Carlos Drummond de Andrade)

¹⁶ Even though the material is public on the blog, we chose to substitute the names of the students.

¹⁷ Translated as “jail” it’s a typical game of June festivities in Brazil.

<p>childhood education.</p>	<p>Civic events with other schools were also permanent, due to the military moment. Regarding didactics, he was very fond of the disciplinary model, the clear rules and regulations, which, according to him, transmitted security. The teachers were all female, and none were under 40. Tasks were frequent, in which, when not carried out, the model of direct pedagogy of the time was further affirmed.</p> <p><i>Hit the Road 2</i>, born on 16 December 1985, in Bariri, where he studied in municipal and private schools. The memories marked in his thoughts carry the trees, the earth and the playgrounds present in schools. The model he experienced was more focused on constructivism, in which teachers worked with art, drawing and painting, clay, panels. The water and snacks were very good! All knowledge was a form of adventure, discovery, suspense and emotion.</p> <p><i>Hit the Road 3</i> was born in Piratininga, on 22 November 1993. He started his studies in 1997, at the age of 4 at a school that enchanted her. Remember that she participated in the making of the school curtains. Affection and attention are the senses that marked. Teacher Márcia took them to her home to have small parties and games. It was the joy of childhood. She remembers the martial band and the school parades that took place annually. The methods, as far as she remembers, respected the students' learning conditions, passing the contents according to their assimilation.</p> <p><i>Pé na Estrada 4</i>, nascida em 20 de março de 1994, na cidade de Bauru, iniciou os estudos em 1999 em escola pública. O que mais lembra é da contação de história em roda, de sentar em dupla, pinturas a dedo e as brincadeiras no “parquinho”. As professoras muito amigáveis com os alunos, em que aparentemente detinham uma abordagem humanista e pessoal.</p> <p><i>Hit the Road 5</i>, born on 11 May 1995, her studies started at 6 years old. She studied at the oldest school in Lençóis Paulista, which did not have a large park, but had a lot of space for the game of tag and trees to “bater cara”. Due to the lack of classrooms, she remembers having classes in an “improvised” room at the back of the school, where there was a small garden, with many “spring” flowers. There were teachers with didactics very different from each other: her teacher who spoke that saying that she hated “when a donkey speaks the other lowers its ear”; And another teacher, very close to the students, who taught them knitting and always took them for various walks.</p> <p>We noticed that what most accompanies us from our early years of education are memories and emotions. Emotions, senses and memories accompanied and accompany our formation process, which also happens in the film “<i>Como estrelas na terra – Toda criança é especial</i>” (“Like stars on earth - Every child is special”) by Aamir Khan, India. The directive process present in the film was also present in our reality, just as humanist teachers did, and the importance of these teachers is more than clear in our speech, which arises from sincere memories of a child. Affection, wisdom and care make all the difference, especially in the early years where we built our bases and wings so that in the future, we can reach higher flights</p>
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Source: Prepared by the authors based on the material made available on the Blog. Available: <http://aprendizagemcooperativaveracapellini.blogspot.com/?m=0>. Access: Jan. 2018.

For formative evaluation the following aspects were contemplated:

- self-assessment - an important feature of CL - of each Team Plan, that is, weekly;
- evaluation by the team's peers and the teacher, generating a quantitative and qualitative role that, through an average and the various feedbacks, allowed each student to have a critical, reflective and formative analysis;

- feedback from the teacher of all activities carried out/produced by the work teams, enabling students to recognize the objectives achieved during the learning process and those that needed appropriation;
- double test on the recommended book - consisted of a challenge in the elaboration of a proposal for organizing pedagogical work in early childhood education, considering reading the book and a practical activity carried out in an early childhood school;
- individual test - containing discursive and mainly objective questions, since upon completion of graduation students are faced with competitions, when the experience with an objective evaluation will have been relevant. Furthermore, for CL, individual assessment is a way of promoting responsibility.

Figure 2 shows an example of self-assessment by students on the “Hands-on” team, whose names have been hidden. It is possible to observe that the self-assessment was critical, deconstructing the myth that the student, when self-assessing, will give him a maximum score, even without reaching the criteria for doing so.

Figure 2 – Self-assessment of students on the “Hands-on” team¹⁸

Auto Equipe: Mão na Massa.	Avaliação			
Trabalho TGD		9	9	9
Fichamento Livro Rosita.		7	8	8
Análise do Filme		8	7	7
Perguntas (Sexualidade)		10	10	10
Média		8,5	8,5	8,5

Source: Team Blog “Hands-on”

In this way, all evaluative activities were equally considered, a fact that makes it possible to minimize stress in students, as is common when taking only individual tests.

Based on the activities developed in the discipline during an academic semester, we can infer that the CL promotes teacher formation, as recommended in § 3 of Article 3 of Resolution no. 2, of 1 July 2015, which defines the National Curricular Guidelines for initial formation at a higher level, as it seeks the “[...] formation of teaching professionals [...] that promotes the

¹⁸ We reads on the table image: From top to bottom – Self-assessment team: “Hands-on”; TGD Work; Summary of the Book Rosita; Movie analysis; Questions (sexuality); Average.

emancipation of individuals and social groups, attentive to the recognition and appreciation of diversity and, therefore, contrary to all forms of discrimination”¹⁹.

In addition, in Art. 5 item IV, the Resolution highlights that the formation of higher education professionals must include: “pedagogical dynamics that contribute to the professional practice [...] enabling the conditions for the exercise of critical thinking, the resolution problems, collective and interdisciplinary work, creativity, innovation, leadership and autonomy”²⁰; and in item VI, the “competent use of Information and Communication Technologies (ICT) for the improvement of pedagogical practice and the expansion of the cultural formation of teachers and students”²¹.

Thus, the experience reported here enabled us to experience participative, collaborative and supportive pedagogical alternatives through cooperative work, which contributed to the initial formation of undergraduate students in Pedagogy and to the continuing education of teachers and interns in higher education.

Final considerations

Concerning the contribution of this methodology to the professional development of higher education teachers, some aspects deserve to be highlighted. The first concerns the concern with the curricula of all undergraduate teaching degree courses at the College and, in this sense, it was sent to the Faculty's board a propose to create a study committee on curricular flexibility, which culminated in the Ordinance of the Director of FC.C.BRU no. 033, of 23 March 2016²². This initiative aimed to study different possibilities of curriculum in higher education, aiming to improve methodologies that, most of them, no longer serve the current generation of students.

The CL practice reported here promoted the use of technological innovations that started to include teaching practice; this integration is recognized by the Organization for Economic Cooperation and Development - OECD (2004) as necessary in the curriculum, as it enables learning, in addition to preparing students for the challenges of the 21st century. They state that

¹⁹ “[...] formação dos profissionais do magistério [...] que promova a emancipação dos indivíduos e grupos sociais, atenta ao reconhecimento e à valorização da diversidade e, portanto, contrária a toda forma de discriminação”

²⁰ “dinâmicas pedagógicas que contribuam para o exercício profissional [...] possibilitando as condições para o exercício do pensamento crítico, a resolução de problemas, o trabalho coletivo e interdisciplinar, a criatividade, a inovação, a liderança e a autonomia”

²¹ “uso competente das Tecnologias de Informação e Comunicação (TIC) para o aprimoramento da prática pedagógica e a ampliação da formação cultural dos(das) professores(as) e estudantes”

²² Available: <https://www.fc.unesp.br/Home/Administracao/secaograduacao/portaria-033-2016.pdf>. Access: Jan. 2018.

teachers in training do not use DICT in the classroom with the regularity that would be pedagogically desirable.

In order to integrate technologies into classroom practices, it is necessary to:

[...] give the teacher an opportunity to take ownership of the technology domain, at the same time that it analyzes its potentialities and limitations and develops pedagogical practices with the monitoring and guidance of the group in formation. Thus, the teacher shares advances and mistakes with other professionals who are going through the same situations and receive guidance from the educators to overcome the difficulties and challenges resulting from the experimentation of new practices (ALMEIDA, 2007, p. 160).²³

Another aspect to be highlighted was the articulation with the coordinators so that all the Teaching degrees offered at UNESP would comply with CEE Resolution no. 111/2012, updated by CEE Resolution no. 154/2017, which establishes Complementary Curricular Guidelines for the Formation of Teachers for Basic Education in the Undergraduate Courses of Pedagogy, Higher Normal Education and Teaching Degree Courses, offered by higher education institutions linked to the state system. Such articulation stems from the evaluation of the narratives of the undergraduate students who presented difficulties in the textual production (the theme addressed and defended in the Deliberation).

In addition, the practice with the CL has made it possible to recognize that teachers cannot accommodate themselves in their traditional organization of pedagogical work, although sometimes one or another student reports a preference for expository classes and directives, and/or encounters resistance among their teaching peers, it is necessary to have the courage to implement new practices, because if we want a different basic education, the first step must be taken at the University, a privileged *locus* for the production of new knowledge.

Thus, this proposal challenges us to seek coherence between speech and practice, in addition to pursuing the inseparability between theory and practice. According to what Paulo Freire (1996, p. 34) already said, “teaching requires the embodiment of the word by example”²⁴. The teacher who actually promotes learning does not accept “do what I say and not what I do”. He knows that the words that lack the embodiment of the example are almost worthless. There is a need for a testimonial practice that confirms what is said instead of dismissing it (FREIRE, 1996).

²³ [...] dar oportunidade ao professor de se apropriar do domínio da tecnologia, ao mesmo tempo que analisa suas potencialidades e limitações e desenvolve práticas pedagógicas com o acompanhamento e orientação do grupo em formação. Assim, o professor compartilha avanços e equívocos com outros profissionais que estão passando pelas mesmas situações e recebem orientação dos formadores para superar as dificuldades e desafios decorrentes da experimentação de novas práticas (ALMEIDA, 2007, p. 160).

²⁴ “ensinar exige a corporeificação da palavra pelo exemplo”

With regard to the project's contributions to the formation of undergraduate teaching degree students, we highlight that at the end of the course, the 35 students were invited to make an assessment of the course by *googledoc*. In the item “student-student relationship”, mention is made of CL, according to examples of reports: “[...] students help each other [...] because it is cooperative learning”; “Teams work in an organized manner respecting differences”; “The relationship is friendly”²⁵.

Based on all the activities developed in the discipline, we can say that, for students, working with the CL meant opening new horizons in relation to their future teaching performance, envisioning participatory, collaborative and solidary pedagogical alternatives. The experience of CL in their formative process has awakened them to the need to take the lead in the classroom, conduct their learning process, discover paths to knowledge in an autonomous and committed way. This exercise will have been of great importance when, already formed, they face the challenges of education in contemporary society and all the transformations that are presented in the social, political, economic field and that, inevitably, are reflected in the educational field.

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²⁵ “[...] os alunos se ajudam [...] por ser aprendizagem cooperativa”; “Equipes trabalham de forma organizada respeitando as diferenças”; “a relação é amigável”

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