The Challenge of Improving Homework Processes and Benefits: Insights from Two Intervention Research Sessions with Teachers and Parents of an Elementary School

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This paper is in line with our prior works conducted mainly on parents and teachers' points of view regarding homework. In Quebec, Canada, homework is perceived as a near-universal practice. However, school communities are strongly urged to engage in a collective reflection over homework at a local level in order to document the different avenues that could embrace the main stakeholders' concerns. This paper investigates how teachers and parents can act as agents of change in such a process. The research-intervention was based on Cultural-Historical Activity Theory using the Change Laboratory methodology. It draws upon the concept of expansive learning and suggests that participants agree with the nature of the problem and model together new solutions. The present study focuses on the transformative agentic actions that were put into place during two Change Laboratory sessions. This analysis deepens our understanding of teachers' role and expectations towards parents as well as parents' comprehension of the teachers' role and of their own role in the context of their child's homework. The authors conclude that there is a need to have teachers, parents and the school principal engage with one another to develop a common vision of the issues at stake.

Keywords: Homework, Teachers and Parents, Agents of Change, Transformative Agency, Change Laboratory.

Introduction

Over the years, in Quebec Canada, as in many industrialized countries, the controversy over the usefulness and quantity of homework has been a recurring topic in the public forum (Ballivy, 2008; Maisonneuve, 2009). Our definition of the term *homework* is based on Cooper (2001), a leading researcher in that field, and corresponds to the tasks assigned by teachers and carried out outside school hours. Recriminations regarding homework come from parents of all economic backgrounds. Immigrant families, split families, prolonged working hours in response to pressure for better productivity, and increased child participation in extracurricular activities are all factors contributing to the families' overload schedules that partly explain their call for help with homework (Deslandes, 2011). Questions about the relevance, utility and frequency of homework come from both families and children and some teachers (Cooper, Lindsay, & Nye, 2000; Hallam, 2004). Why is the question of homework still a controversy? How can we address the problem in a different way to engage actors in a shared and collective way to resolve the issue? In this paper, we present the results of two Change Laboratory sessions, a methodology coherent with the theory of expansive learning that fosters learning actions oriented toward a better way to coordinate and cooperate for the benefit of parents, teachers and pupils.

Reflecting on our previous research

In this article, we'll present the findings from some of our studies conducted at the elementary level that reflect parents' and teachers' viewpoints on homework and that are most relevant to the present work. The analyses carried out are based either on a quantitative or qualitative approach and sometimes, on a mixed approach. In a first study, we focused on some aspects of homework through analysis of family groupings (n= 465

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parents) based on family structure, parental education, and children's academic achievement. Parents reported that over one-third of elementary students spend 30 to 60 minutes per week-night on homework. Even though most parents were in favour of homework, findings showed that some families including those whose children were experiencing academic difficulties were more reluctant regarding homework. These same families perceived their utility less than others. Low educated families and families with children with learning difficulties, felt less competent to intervene adequately in homework (Deslandes, Rousseau, Rousseau, Descôteaux, & Hardy, 2008). In a second study, results showed that parents' involvement decreased from grades 4 (n = 239) to 6 (n = 167), which was hardly surprising as parents expected children to take responsibility for homework themselves. (Deslandes, 2009a).

A third study was conducted on elementary school teachers' perceptions with respect to homework. Overall, the majority of teachers seemed to take for granted the necessity to assign homework. Teachers viewed homework as important (Deslandes, 2009b). There seemed to be a consensus among the teachers that homework complemented learning in class. They believed it helps students to integrate what they learned during the day. Teachers felt they offered substantial help to students with difficulties by means of increasing their availability and adapting the material. According to them, homework time was important because it allowed parents to see what their child was doing and what difficulties he/she was experiencing. They considered that it was the parents' responsibility to make sure that homework was completed, to foster their child's autonomy development, to give priority to homework instead of extracurricular activities and, above all, to avoid playing the role of a teacher at the risk of creating confusion in the child. At the same time, they thought that homework allowed them to see what was acquired or not in terms of learning. Most of them said they were aware of their students' family conditions and they argued that homework was a means of engaging communication with the parents.

In a fourth study, we studied the congruence between teachers' and parents' role construction and expectations about involvement in homework. Characteristics related to the child and the family were taken into account. The sample included 467 primary school parents and 48 teachers. The results suggest that parents with positive attitudes towards homework perceive their role in helping with homework as more important than other parents. Parents of children having learning difficulties felt less responsible when it came to verifying the completion of homework and understanding the tasks that the child must do. With respect to parents' expectations of teachers, there was no real difference except between traditional and non-traditional families, with the latter tending to have higher expectations. Compared to more educated parents, parents with less education believe more strongly that teachers need to consider family conditions when giving homework. Teachers, compared to parents, seem to have higher expectations towards parents, especially with regard to the importance of providing a physical and psychological structure, supervising, encouraging, providing feedback, giving direct aid, and so on (see also Cooper et al., 2000; Walker, Hoover-Dempsey, Whetsel, & Green, 2004). Along with previous research at the international level (e.g., Kay, Fitzgerald, Paradee, & Mellencamp, 1994; Hoover-Dempsey et al., 2001; Shumow, 1997), the authors added to the evidence of parents' need for effective strategies in helping with homework (Deslandes & Rousseau, 2007).

Finally, in a fifth study, Bergeron and Deslandes (2011) examined the expectations of parents of elementary students with respect to the information evenings at the beginning of a school year. The expectations are discussed in terms of welcoming, exchange of information and perceptions of the development of trust with their child's teacher. Data collection was conducted with eight parents of fifth grade in the course of two interviews with each participant, one before the group meeting, and a second one, a few days after. The results indicate that parents consider of utmost importance having information on strategies to support learning and homework at home.

As shown in the above studies, numerous factors contribute to the complexity of the homework issue, such as students' and families' characteristics, grade level, and parents' and teachers' beliefs, strategies, understanding of their role and mutual expectations. Despite the increase of knowledge regarding the homework theme, it still remains a contentious issue. In response to this context of controversy, the Québec Conseil supérieur de l'Éducation (CSE) produced a brief on that topic to the Minister of Education, Recreation

and Sport, in 2010. The objective was not to refute the relevance of homework because it has always been a near-universal practice in Quebec elementary schools (CSE, 2010). The purpose was rather to provide guiding approaches in the area of homework and to translate them into practice. In line with that recommendation, a governing board of a rural Quebec elementary school chose to include in its *Success Plan* as one of the measures to fulfill the goals of its *Educational Project* (Education Act, c-1-13.3, Section 36) a collective reflection on homework (see Deslandes & Lemieux, 2005).

In summary, our prior works have allowed us to identify tensions and contradictions among the perspectives of teachers and parents with respect to homework. On one hand, some parents are in favor of helping with homework and expect more information on how to intervene more adequately whereas other parents declare having a lack of time and a lack of knowledge to help their child. On the other hand, teachers mention having high expectations towards parents while they argue to being aware of the family conditions and their limited resources.

The purpose of this paper is to document and analyze a promising qualitative research approach that addresses complex topics like the homework issue and sheds a new light on the important quantitative and qualitative data collected and analysed over the years. By identifying and then resolving the dialectical contradictions, we hoped to enhance collective actionable knowledge of the problematic situation leading to change actions of the participants (Sannino & Engeström, 2017).

The two research questions that we addressed are:
1) Is there a common vision of the homework issue among the participants?
2) What are the possible actions taken or could be taken to resolve the issue?

Theoretical frameworks

Our analysis is inspired by the Cultural-Historical Activity Theory (CHAT) (Engeström, 1987, 2015) of which the theory of Expansive Learning is a key concept (Engeström, 2015). The Cultural-Historical Activity Theory (CHAT) (Engeström, 1987, 2015) was chosen as a theoretical lens because of its views of the interactions between people, their goal and tools or artifacts. CHAT uses a triangular represention of individual/social mediation that has six poles: subjects, object-oriented, tools, community, rules and division of labour. See Figure 1 for a visual illustration of an activity system on the homework topic.

Following Ilenkov (1982), the Theory of Expansive Learning sees contradictions as historically evolving tensions that can be detected and dealt with in real activity systems. In our previous studies (Deslandes, & Barma, 2016; Deslandes, Barma & Morin, 2015), we have shown that recurrent systemic tensions leading to contradictions can emerge at each pole of an activity system involving parents, children, school principal and teachers. We suggest an expansion of this area of knowledge at another level through a better understanding of how recurrent tensions
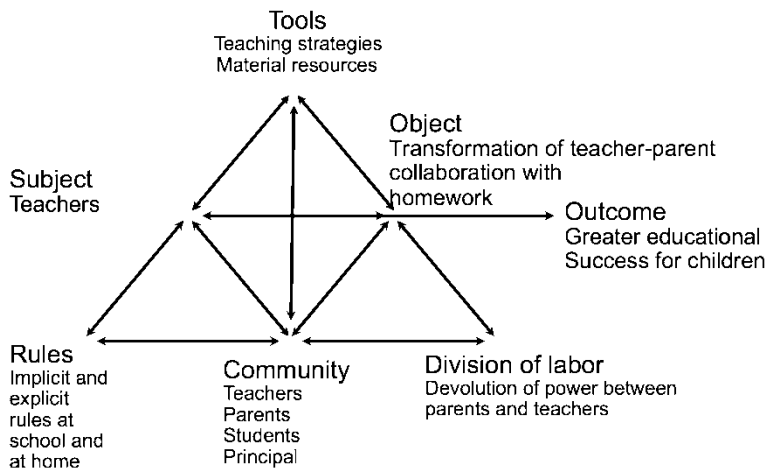

Figure 1.
Activity Theory Model adapted from Engeström, 2010 to homework topic

— namely, contradictions — can be seen as useful to promote change at both the individual and collective levels (Engeström, 2015).

Most importantly, contradictions are the driving force of transformation. In light of our prior work, the issue of homework is internally contradictory. It leads us to use this controversial issue as a springboard to provoke discussion with the participants (Engeström, 1987; Kajamaa & Schulz, 2014). In that sense, the contradictions identified in our previous studies were introduced as «mirror data» in the first session in order to trigger discussions between the participants gathered together in two CL sessions.

As we have argued, the metaphor of expansion is fruitful as well as the theory of expansive learning because it puts primacy on communities as learners when they learn something that is not yet there like in our case, how to deal with the issue of homework. The methodological counterpart of the Expansive Learning Theory is the Change Laboratory (CL) method. A typical CL is divided into six main phases, and is therefore in coherent with Engeström's (1999) Expansive Learning Cycle. Typically, the Change Laboratory method comprises six phases: 1) questioning and criticizing the actual practice; 2) analyzing the situation; 3) modeling the new solution; 4) examining and testing the model; 5) implementing the model and 6) reflecting and consolidating.

For a researcher studying empirically, the challenge of the usefulness and quantity of homework in the public arena, is always revealing and it is useful to engage in quantitative data collection and analysis. Nevertheless, like in any kind of research, a grey zone remains. In our case, we wanted to engage in a closer relationship with teachers and parents to address, with a higher degree of proximity, the issue of homework. In our western society, the reality of family life has evolved tremendously over the years with for example, more single-parent families and blended families, more mothers active in the labor market, etc. (Deslandes et al., 2015) and new parameters are in place. Our goal was to document how a new methodological approach could bring forward a sustainable transformation regarding the issue of homework by collaborating with a variety of individuals concerned by the issue (Virkkunen & Newnham, 2013). In light of what was presented in the above section, addressing the issue of homework is complex. We were looking at a way to respect the complexity and multivoicedness of the different individuals involved and contribute to induce changes. The Change Laboratory (CL), a research-interventionist approach rooted in CHAT, stood out to bring to light the origins and systemic causes of a problem by raising questions about it, reformulating it and collectively envisioning a new goal when it comes to homework.

Furthermore, of uppermost relevancy in CHAT is the notion of transformative agency that looks for possible collective change actions (Haapasaari, Engeström & Kerusuo, 2014). It is mainly through talk or dialogue that changes first emerge in a collective interaction over time. This is why we have chosen to focus on the dialogue going on between the participants so as to observe the evolution of their discourse towards concrete developmental actions. One way to examine the potential transformation going on is through the identification of the expressions used by the participants (Haapasaari et al., 2014). Engeström (2001) identified six types of expressions through which transformative agency may be manifested: (1) resisting, opposing, rejecting the change or new suggestions; (2) criticising the current situation, (3) explicating new possibilities, (4) envisioning new patterns for the activity, (5) committing to concrete actions and (6) taking actions after a completed cycle. For instance, this discursive agency varies along with the phases in CL sessions as they evolve over time. In this paper, we are interested in the occurrence and frequency as well as in the evolution of these types of transformative agency through the first two sessions of a Change Laboratory.

Method

Data collection and analysis

The present work corresponds to the first phase of a CL, that is, the questioning or charting the situation (Virkkunen & Newnham, 2013). Two CL sessions were conducted. The first CL session occurred in April 2016 and gathered all together 14 collaborators (2 researchers, 1 school principal, 11 teachers). The group of teachers was distributed as follows: 2 cycle-one, 3 cycle-two and 6 cycle-three, working at the same elementary school site, one school-principal and two research-interventionists (face-to-face and on Skype). The second CL session, conducted in November 2016, gathered nine participants, three teachers from the previous CL (2 cycle-two) and a new cycle-one teacher, three parents with children in grades 2, 3 and 5, the school principal and one research-interventionist on site. All participants

signed an ethical code form that aimed to ensure a climate conducive to the exchange of ideas while respecting the opinions of others, in a spirit of collegiality and in a co-constructive climate. At the start of the first CL session, the research-interventionist who acted as a moderator presented mirror data as a first stimulus, that is evidence-based data issued mostly from our previous studies presented above, in order to foster a reflection on the issue of homework. At the beginning of the second session, the research-interventionist used the participants' statements from the first CL session as mirror data and presented them to the group that included some parents. The main questions that guided the two CL sessions are: 1) As teachers and as parents, what homework practices have you put into place? 2) What are your expectations of each other? 3) What strategies could be developed and implemented to promote more effective parent-teacher collaboration with homework in view of greater educational success for children? Each of the two videotaped sessions lasted between 120 and 160 minutes. The data were transcribed by a well trained research assistant and the analysis was realized by the two researchers and a well-trained graduate student through the identification of units of meaning with a single idea per segment. The analysis was based on different types of expressions of transformative agency produced during the questioning phase.

Findings

Before presenting the findings, it is compelling to recall that the main objectives of the first sessions in a CL are to identify the stated needs. The participants must share a common representation of the problem that is addressed before bringing to light elements that could contribute to the evolution of the teacher-parent collaboration with homework. The role of the research-interventionist is to conduct the sessions so the participants express freely their views and emotions.

Findings from the first CL session

A glance at the six types of expressions in the first session (Table 1) shows a total of 300 expressions of agency with a higher percentage of explicating (43%) followed by criticising (38%). Resisting (9%) and envisioning (10%) corresponded to almost the same percentages. Not surprisingly, committing to actions was least frequent (1%) and taking actions expressions were not found.

Figure 2 illustrates the distribution of transformative expressions among the participants. As shown, both teachers and the school principal produced explicating and criticising expressions. Teachers, but not the school principal at this point, envisioned new patterns and manifested some discursive resistance (see Figure 2).

Table 1.
Participants' production of different types of expressions of transformative agency in the first CL session.

| Participants	Resisting $f(\%)$	Criticising $f(\%)$	Explicating $f(\%)$	Envisioning $f(\%)$	Committing to actions $f(\%)$	Taking actions $f(\%)$	Total
Teacher 1	3 (10)	10 (34)	12 (41)	4 (14)	0 (0)	0 (0)	29 (100)
Teacher 2	1 (20)	0 (0)	4 (80)	0 (0)	0 (0)	0 (0)	5 (100)
Teacher 3	1 (5)	4 (21)	9 (47)	3 (16)	2 (11)	0 (0)	19 (100)
Teacher 4	6 (14)	18 (43)	10 (24)	7 (17)	1 (2)	0 (0)	42 (100)
Teacher 5	1 (3)	13 (45)	14 (48)	1 (3)	0 (0)	0 (0)	29 (100)
Teacher 6	0 (0)	7 (58)	2 (17)	3 (25)	0 (0)	0 (0)	12 (100)
Teacher 7	0 (0)	4 (31)	9 (69)	0 (0)	0 (0)	0 (0)	13 (100)
Teacher 8	0 (0)	10 (33)	15 (50)	5 (17)	0 (0)	0 (0)	30 (100)
Teacher 9	2 (13)	4 (27)	8 (53)	1 (7)	0 (0)	0 (0)	15 (100)
Teacher 10	7 (14)	19 (39)	20 (41)	3 (6)	0 (0)	0 (0)	49 (100)
Teacher 11	3 (7)	21 (50)	16 (38)	2 (5)	0 (0)	0 (0)	42 (100)
School principal	2 (13)	3 (20)	9 (60)	1 (7)	0 (0)	0 (0)	15 (100)
Total	26 (9)	113 (38)	128 (43)	30 (10)	3(1)	0	300 (100)
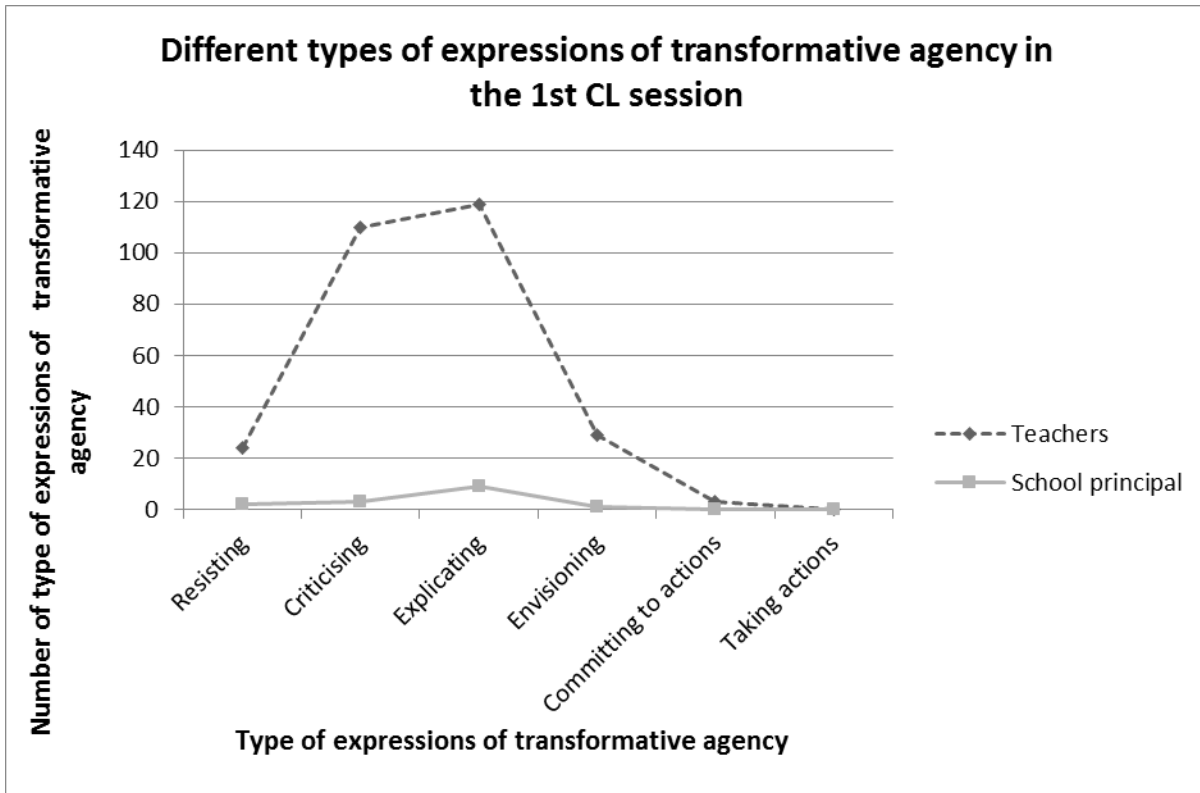
Figure 2.
Types of expressions of transformative agency distributed among the participants in the 1st CL session.

Explicating expressions, as stated by the participant teachers (*subjects*), were mainly directed at their expectations with respect to parental involvement in homework and oriented towards the *rules* and *division of labor* poles. For instance, as a *rule*, teachers expect parents to read for 15 minutes at a time. They also expect parents to make sure traces of their work are written on the sheets. Teachers also explicate the different possibilities of parents' getting in touch with them (*tools* pole) (See Table 2 for examples)

Criticisms or change-oriented expressions were directed to the *community* (parents) and concerned also the *rules*, *division of labor* and

tools poles. Families' non traditional structure and mothers' low educational level as well as negative past school experience and children with learning difficulties elicited several criticisms with respect to parents' expected level of involvement (*rules* pole). Teachers admitted that the different homework assignments deadlines between the cycles (*tools* pole) represent some adaptation from parents with many children (*division of labor* pole). They deplore that parents sometimes do the homework themselves (*division of labor* pole). But having a double role as a teacher and as a parent, helps them to understand parents' responsibilities with homework helping (*division of labor* pole).

Table 2.
Examples of types of expressions of transformative agency in the first CL session.

Types of expressions	Examples
Explicating	*There is a mathematical homework that is more than just practice; our vision […] is to allow parents to have some kind of follow-up on what the child is doing in class* (rules pole) (T-3). *The parents are asked to make sure traces of the work are written on the sheets* (division of labour pole). (T-6). *We are very open to meet them and to talk to them on the phone, by e-mail too* (tools pole) (T-10).
Criticising	*The mother who had learning difficulties, who did not do well in school, just can't feel at ease doing homework* (rules pole) (T-11). *It is certain that with their children going to school now, the homework practices have completely changed* (rules pole) (T-11) *The wages in the community are rather high but not all the mothers have a high school diploma. That's why our school has a low SES status (rules pole) (SP).*
Imagining, Envisioning	*We have been working together for a long time and we have changed and changed and we are constantly asking ourselves questions* regarding homework (object) (T-1).
Resistance	*Since January, it's over. Because my child is in the first grade, so I suffer homework* (rules pole) (T-9). *Do we really have to standardize the wording regarding homework*? (tools pole) (T-5)
Committing to actions	*I keep the students during a school «catch-up» period because homework must be completed, it is not a choice, it is an obligation (division of labor* pole) (T-4).

* T: teacher   **SP: school principal

Findings from the second CL session

The objective of the second CL session was really to find out parents' expectations regarding homework and their collaboration with teachers while including the contribution of some volunteered teachers who had participated in the first Cl_session. Exactly 234 transformative expressions were coded. Criticising represented 50% of the expressions while explicating dropped to 21% and resisting to 6%. However, envisioning expressions rose in frequency (18%) and some taking actions expressions were invoked (4%) (Table 3).

Figure 3 shows the distribution of transformative expressions among the participants during the second CL session. As shown, parents and teachers were quite active in expressing criticising. Even though at a lower level, their explicating expressions were similar for both groups of participants. As compared to parents, the school principal and the teachers produced higher number of envisioning new ways or new patterns. Only teachers and parents uttered some resisting expressions. At this point, none of the participants were active in producing expressions of committing to actions. However, a few taking actions expressions were reported by the teachers. (see Figure 3).

A great part of the criticising expressions from the parents (*community*) were related to their lack of time (*rule* pole), lack of understanding of the terms used to refer to homework like exercices, lessons, reading, (*tools* pole), and of the parameters delineating their role (*division of labor* pole). The parents acknowledged the fact they could not remember all of the information given to them at the teacher's first meeting with groups of parents (*rule* pole). Some of their criticising expressions were oriented toward the *object* (homework) because they themselves as students disliked doing homework. Parents also criticised the gap that exist between the second and the third grades and the dispersed curriculum making their role in helping with homework even more challenging (*rule* pole).

Teachers reiterated some of the criticisings expressed in the first session regarding the lack of clarity of the parents' role in helping with homework (*division of labor* role), some parents' noninvolvement with respect to homework (*rule* pole), the challenge for the parents associated with the the homework deadlines that are different throughout the grades (*rule* pole) and the fact that some parents complete their children's assignments (*division of labor* pole). Explicating expressions came mostly from teachers (*subject*) going over their practices in terms of workshops aiming at developing the students' autonomy mainly from grade 4 and up, and their good will in wanting to better equip parents in helping with homework (*division of labor* pole). The school principal explained the parent's role in terms of

supervising and facilitating behaviors (*rule* pole). (See Table 4 for examples of comments)

Envisioning new patterns was raised by teachers and by the school principal. The *tools* and the *community* poles invoked most expressions of envisioning transformative expressions. The school principal reminded that they are on their way to standardize the « correction codes » throughout the grades, that it would be possible to go through the same process with the various terms referring to homework (*tools* pole). He also mentioned that they could prepare 1-minute capsules addressed to parents on how to help their children (*tools* pole) and they could better clarify parents' role with homework when meeting groups of parents (*tools* pole). They could also request an educator or a specialized remedial instructor to do home visits in order to assist parents in helping with homework (community). Some teachers, just as the school principal, could see the possibility of having a third group meeting with the parents that would focus on homework. Resisting new ways of doing things came for instance, from parents who did not want to be obliged to attend a third group meeting on homework (*tools* pole), from a teacher who wanted to wait until the next year before making any changes regarding homework terminology (*tools* pole) and from the school principal who apprehended the CL process (*object*). As for their taking concrete actions, some teachers revealed having already made changes in homework by suggesting some tools to parents on how to help their children with Social Universe (*tools* pole).

Table 3.
Participants' production of different types of expressions of transformative agency in the second CL session.

Participants	Resisting f (%)	Criticising f (%)	Explicating f (%)	Envisioning f (%)	Committing to actions f (%)	Taking actions f (%)	Total
Teacher 1	1 (3)	19 (50)	9 (24)	7 (18)	0 (0)	2 (5)	38 (100)
Teacher 2	1 (3)	15 (52)	5 (17)	5 (17)	0 (0)	3 (10)	29 (100)
Teacher 5	2 (40)	2 (40)	1 (20)	0 (0)	0 (0)	0 (0)	5 (100)
Teacher 12	1 (4)	14 (61)	4 (17)	3 (13)	0 (0)	1 (4)	23 (100)
School principal	1 (2)	16 (35)	10 (22)	17 (37)	0 (0)	2 (4)	46 (100)
Parent 1	0 (0)	7 (54)	4 (31)	2 (15)	0 (0)	0 (0)	13 (100)
Parent 2	5 (12)	25 (60)	7 (17)	5 (12)	0 (0)	0 (0)	42 (100)
Parent 3	2 (5)	20 (53)	10 (26)	4 (11)	0 (0)	2 (5)	38 (100)
Total	13 (6)	118 (50)	50 (21)	43 (18)	0 (0)	10 (4)	234 (100)

Table 4.
Examples of types of expressions of transformative agency in the second CL session

Types of expressions	Examples
Criticising	*It is a challenge for parents with 4 or five children, with dictation on Monday with a teacher and on Day 3 with another* […] (*rules* pole) (T-2). *I understand them, I hated going to school. I hated doing homework* (*object*) (P-2). *It is not true that in November, once at home, the child does not know what is expected as homework* (*rule* pole) (SP).
Explicating	*I love the idea of the workshops because if students have questions, they can ask them to the teacher (division of labor pole)* (P-1). *I'm not there to judge parents but to help them (division of labor pole)* (T-1)
Imagining, Envisioning	*To use the same words throughout the grades to refer to homework is possible (tools* pole*)* (D). *I think that I can do it in another way to reduce the gap between the second and third grades (division of labor* pole*)* (T-12). *To have students work in teams reduces my workload at home (division of labor* pole*)* (P-2).
Resistance	*If I'm being offered some help without any obligation, and if I need it, I'll attend the meeting (rules* pole*)* (P-2). *Since January, it's over. Because my child is in the first grade, so I suffer homework (rules* pole*)* (T-9). *If the child has understood, I allow to use his/her parent's method but I don't allow him/her to explain it to the rest of the class (tools* pole*)* (T-5)
Committing to actions	*Parents have already had some explanation at the first group meeting; I already explained to them on how we do it and on how to help with homework (Division of labor* pole (T-12).

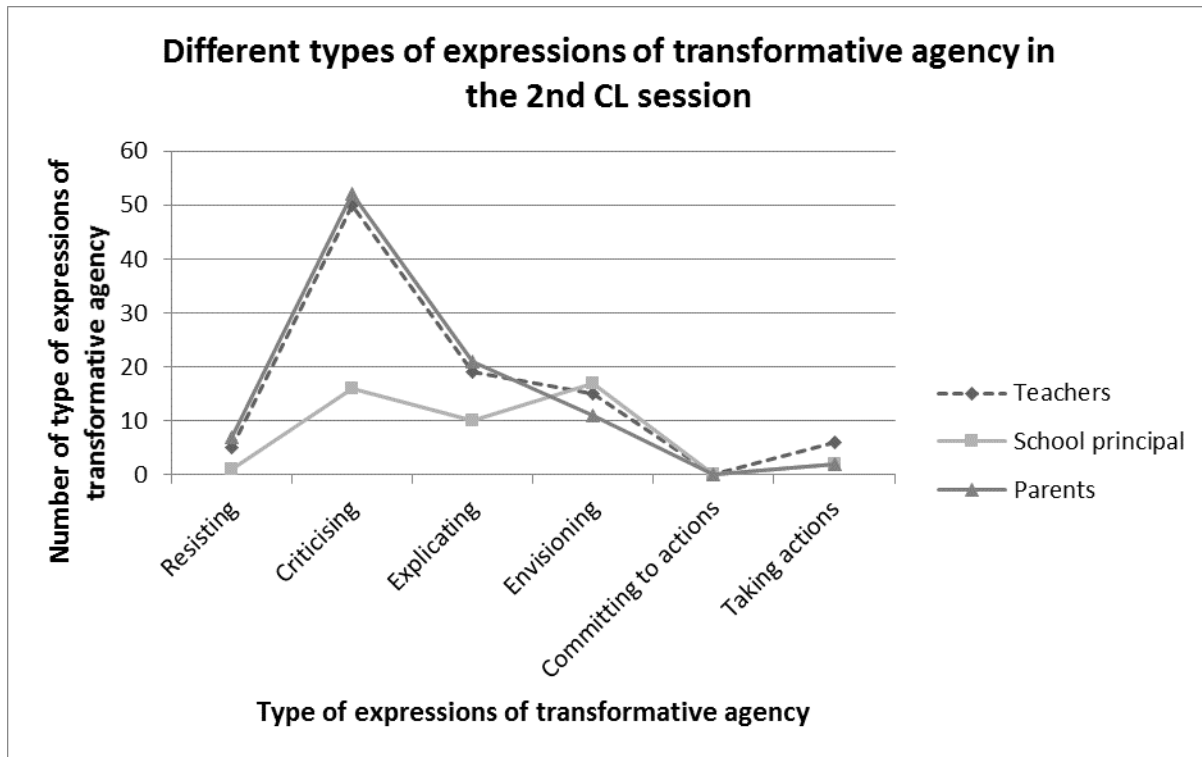* T: teacher   **SP: school principal   ***P: parent

Figure 3.
Types of expressions of transformative agency distributed among the participants in the 2nd CL session.

Discussion and conclusion

In this article, we presented an analysis of the spoken discourse within two CL sessions in order to highlight how teachers and parents can act to get to know each other better and understand each other's realities in a change process in the field of homework. The research-intervention was based on Cutural-Historical Activity Theory (CHAT) using the Change Laboratory methodology (CL) (Virkkunen & Newnham, 2013). It draws upon the concept of expansive learning (Engeström, 2015) and suggests that participants agree with the nature of the problem and model together new solutions.

During the first CL session, the teacher and the school principal participants described their current practices and their expectations regarding parental involvement in homework. Their concerns were in line with the findings from our prior works that were first presented at the start of the session as mirror data in order to stimulate a collective vision of the homework issue, induce problem-solving and improve parent-teacher collaboration.

In the second CL session, teachers from the first CL volunteered to participate and some parents representing different family characteristics (non traditional and large size families and families with children having learning difficulties) were invited. The idea of inviting some parents could be considered as a turning point in the process as a participant teacher, toward the end of the first CL session stated: *I realize while discussing with you that we should not take parents' vision for granted and that it would be fun to have a group of parents discussing with us* (T-8).

The participants' dialogue was coded according to the six types of transformative expressions: resisting, criticising, explicating, envisioning new patterns, committing to concrete actions and taking actions. Examples of the discussed topics for each of the components of the activity system were also presented. As illustrated in Figures 2 and 3, and in accordance with Haapasaari et al. (2014), our findings indicate that the most frequent expressions of transformative agency were those of explicating in the first session and of criticising in the second one, thus calling for changes in the present situation. There was

evolution of the transformative agency as the frequency of envisioning increased and that of criticising decreased. Three taking actions expressions were identified. As expected, the transformative expressions were related mainly to the *rule*, *division of labor* and *tools* components of the activity system.

All in all, the CL process was pragmatic and realistic with respect to envisioned improvement suggesting standardization of the terms used to refer to homework, the possibility of having a third group meeting with the parents, of creating 1-min. capsules on how to help their child with homework and to be posted on the school website and to have a certain number of home visits in order to better equip parents in helping with homework.

At the same time, transformative agentive actions allowed us to uncover the basic inner contradiction linked to the *object* itself: that is homework and the collaboration between teachers and parents in the context of homework. Is there really a need to transform the type of collaboration with homework? Or isn't it just a question of practical adjustments and clarification of the guidelines addressed to parents regarding their involvement that is appropriate to their child's grade level and that respects conditions aiming at developing their autonomy and their sense of responsibility? Obviously, there is a need to harmonize throughout the grades the homework policies including the schedule and deadlines and to adopt a common terminology regarding homework. There is no doubt that this study outcome is the most significant contribution to the international discussion on homework.

The methodology that was used, the Change Laboratory is one that could be a powerful method for others working to foster collaboration and negotiation of common understandings of parents and teachers in other contexts. The utilization of the Theory of Expansive Learning components of CHAT Theory to frame the work with parents and teachers, and then as a lens for the data analysis, offers potential for other researchers to consider drawing on this theory in their work. As a limitation, we must mention the necessity for all participants to agree to participate in the exchange of ideas with courtesy, honesty, and respect of the others' ideas as well as their openness to new ideas and their engagement in a collective reflection to improve the conditions of educational achievement. It is also imperative to continue the expansive cycle in order to put into practice the first steps of the envisioned solutions and then to reflect on the process. Some solutions will have to be prioritized and then modelled by the stakeholders in the next Change Laboratory sessions. Putting into place CL sessions may seem fastidious but through our analysis, we have realized that there is a great need for teachers, the school principal and parents to sit together so they learn to exchange with one another. That small step is crucial for the implementation and sustainability of an innovation to counteract top down solutions that are not rooted in a shared understanding of a problem. Overall, the Change Laboratory is an example of a simple intervention and research process that can be used at a micro or at a macro level when looking for not only radical changes but also practical and pragmatic improvements concerning a given issue.

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