

What do researchers learn when they do intervention research?¹

Nobody teaches anybody, nobody teaches oneself, but all human beings teach each other, mediated by the world (Freire, 1970)

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Abstract: This paper discusses intervention research from the perspective of the development of the researchers involved in an Extramural Program for teacher development in deprived communities in São Paulo, Brazil. Departing from Vygotskian (1930, 1934) ideas, it considers method as simultaneously pre-requisite and product of the study and emphasizes the role of collaboration (Magalhães 2006) as key throughout the process. This study gathered the recorded transcriptions of school meetings, workshops and preparatory meetings along the three years (2005, 2006, and 2007) of the research project analyzed through a dialogic investigation (Bakhtin/ Volochínov, 1929) of voice distribution, turn taking and traces of participation in the argumentative production of meaning about the issues under study. The results indicate that novice researchers moved from a peripheral participation (Lave & Wenger, 1991) to a central one, learned ways of questioning the other participants to prompt more elaborated replies and forms of presenting opposing views in a more critical way. It also showed that when senior researchers provided the novice ones with more responsibilities, they all tended to move beyond their possibilities to find ways of creatively participating in the joint construction of the Program.

0- Introduction

This paper aims at discussing research from the perspective of the learning process of the researchers who engage in educational context to develop a kind of research that focuses on the mutual/ reciprocal teaching-learning process of practitioners and university researchers. It deviates from the common discussion developed in many areas, which either focuses on the descriptive presentation and interpretation of the context under study or attempts to control all the possible variables in order to verify, confirm and/or refute hypothesis. In the research project discussed here these perspectives are neither the focus nor the intention of the researchers. On the contrary, researchers who engage in this project look for self and community development and try to find, in the academic world of research development, a means of dealing with the unacceptable and unfair conditions of the society they live in. So they hope to learn ways to improve their ways of participating in the activities for community growth, and of conducting their research in search for that.

The purpose of this study was to investigate intervention research from the perspective of the development of the researchers involved in an Extramural Program (PAC-Acting as Citizens Program²) for teacher development in deprived communities of São Paulo, Brazil. This program aims at creating opportunities for teachers to organize creative ways for structuring their classes.

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² Programa Ação Cidadã.

In order to develop this discussion, the following topics are addressed: the research group and the context of the Extramural Program where it develops the intervention research, the Socio-Historical-Cultural Activity perspective of Collaborative Intervention; the means of data collection, selection and analysis, the discussion of the results of the three activities developed in the project.

1 - The Research Group LACE³ and its Extramural Program PAC

In the last few years, Brazilian official research agencies have privileged and established that researchers have to be organized in research groups. As a response to this demand, the research group, LACE (*Language in Activities in School Contexts*), was officially structured as a research group in 2004; however, the collaborative⁴ research developed by the group members originated in 1991 when Maria Cecília Magalhães returned from her doctorate in the USA and started her work at The Post-Graduate Program for Applied Linguistics and Language Studies (LAEL⁵). The group works with educators' and students' development in a critical-collaborative-creative way. It includes investigation about subjects' constitution, forms of participation and production of meaning, permeated by language. In 2002, the research group decided to assume the Extramural Program for School Transformation: PAC. The group was then united both for theoretical-methodological discussion and for practical intervention in society.

PAC is an Extramural Program developed by PhDs, Doctoral students, MA students, undergraduates, participants, and fellow researchers (LACE research group) who see research as a tool-and-result of every day problems. As pointed out by Liberali (2006a), this project is mainly supported by an attempt to turn school into a place where different possibilities/options are produced for those kids and adults who have, as their life experience, contexts of violence, abuse and crime (Athayde and MV Bill, 2006). In other words, PAC aims at creating possibilities of playing with a world that has not been created yet in order to make it possible for it to become, that is, to start to be created. This leads to the development of citizenship, here understood as desirable citizenship (Kymlicka, 1995 and Gentili and Alencar, 2001), which is context-bound, and seen in opposition to legal citizenship, which takes all humans as equal and bearing the same rights and duties. That view of citizenship is embedded in Brazilian contexts of extremely different realities. So citizenship is anything, but equal, and transforming social conditions should involve transforming ways of considering what is ethical and how to act in an ethical perspective in these very contrasting conditions (Lessa, Liberali & Fidalgo, 2005).

³ Linguagem em Atividades do Contexto Escolar

⁴ Intervention research in Brazil is better known as collaborative research, since intervention is considered a negative word for reminding all generations of the actions that were performed by the dictatorial government during the repression years of military authoritarian rule.

⁵ Programa de Pós-Graduação em Lingüística Aplicada e Estudos da Linguagem.

In this context, the research group LACE develops the teacher education intervention program - PAC⁶, focusing on the “development of citizenship as a condition of those who do not simply accept what is provided to them but who also want to produce their own rights and duties interdependently” (Lessa, Liberali & Fidalgo, 2005). This program has developed different social projects such as:

- a) Meetings with teachers, students, parents, principals, coordinators and researchers to discuss school needs and dreams;
- b) Reading in Different Areas Project⁷ - LDA
- c) Multiple Worlds Project - MM
- d) Play –Learn Projects⁸ - AB

The chart below exemplifies how PAC projects have been developed across the years, some of which will be better described below.

Chart 1: PAC Activities throughout the years

2002	Visits to study possible types of work
2003	Meetings including researchers, principal, coordinators, teachers, students, parents, community leaders from different schools of Carapicuíba ⁹ ; Participation in school meetings.
2004	School 1: meetings to discuss citizenship education and Reading in different areas; School 2: course: <i>Dealing with differences</i> ; Caieiras ¹⁰ : a course for school coordinators.
2005	Reading in Different Areas Project (LDA): Regional Directory of Education of Carapicuíba – Teacher Support Teams for reading in different areas; Lectures in different state directories.
2006	Reading in Different Areas Project (LDA): Regional Directory of Education of Carapicuíba – Teacher Support Teams for reading in different areas: building autonomy; Multiple Worlds event.
2007	Reading and Writing in Different Areas Project ¹¹ (LEDA): one school in Carapicuíba; Learn-Play: five nurseries schools (development of principal and coordinators and Teacher Support Teams). Multiple Worlds Internet Exchange

⁶ For more details about the topic, consult Fidalgo and Liberali (2006).

⁷ Leitura nas diferentes áreas - LDA

⁸ Aprender Brincando - AB

⁹ Carapicuíba, a city in the outskirts of São Paulo, is considered one of the poorest and most violent regions of Brazil.

¹⁰ Caieiras is a small and poor city in the outskirts of São Paulo.

¹¹ Leitura e escrita nas diferentes áreas – LEDA, from 2007 on: writing also became part of this Project.

2008	Reading and Writing in Different Areas Project (LEDA): one school in Carapicuíba; Learn-Play: 20 nurseries schools, organized and recognized by the Municipal Secretary of Education of the City of São Paulo; Multiple Worlds Project.
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All of these activities enacted throughout the years were organized in Creative Chains (Liberali, 2006a; Liberali & Fuga, 2007) which imply joint efforts in an activity, producing meanings which will be shared afterwards with other new partners through the senses (Vygotsky, 1934) that they bring to a new activity. The new meanings are produced, carrying some aspects created in the first activity. It presupposes that features of the whole can emerge in the production of new creative outcomes and of its creators.

2 The Context for this study: LDA and AB

Two projects were the object of this study: LDA and AB.

Reading in different areas (LDA)

LDA is a collaborative project in education, taking as a starting point the problems with reading presented by Brazilian students and, specifically, the bad score of that community in the national tests. Its main objective is to work with the critical reading of the social genres (Bakhtin, 1953) that had the worse scores in the official exams for all school levels. Specifically, it aims to develop Teacher Support Teams – TST (Daniels and Parrila, 2004) to work in an autonomous way with reading in different subject areas.

In LDA, the TST comprises three or four teachers from each of the 24 schools that belong to the Program. The TST, which are supported by the researchers from LACE and the supervisors from the State Secretariat of Education (SSE), autonomously discuss and work, with their school staff, reading in different areas and ways of critically and transformatively acting in their communities. In order to do it, LDA develops a number of activities: workshops with researchers and TST; meetings with TST and school staff, mainly teachers; classes involving these teachers and their students; and the projects developed by students in their communities. Liberali (2006a) considers each of these activities pieces of the Creative Chain under consideration for this paper. Although one can still find instances of reproduction combined with attempts at creativity, the LACE's aim is the creative production of new cultural outcomes, having argumentation as the tool in this production of meaning.

The procedures used in the projects are as follows:

- Preparatory meetings with researchers, to work with the theoretical and practical aspects to be planned for the workshops;
- Workshops with researchers, supervisors, teachers, to work with reading and with TST development, to prepare for workshops in the *HTPC meetings*;
- *HTPC meetings*: TST, teachers, supervisors, coordinators, principal, and researchers, to develop teacher education procedures for the teaching of: a)

reading in different subject areas and b) critical participation in the communities;

- *Classes of Different Subject Areas*: to develop critical reading in different areas and critical citizenship in the community;
- *Citizenship Acting Event*: actions in and with the community to develop critical attitude towards their life histories.

Play-Learn (AB)

Play-Learn is developed in public nurseries and pre-schools in the poor neighborhoods of São Paulo, aiming to develop the principals', coordinators', teachers' and students' possibilities of working with language in *play* (Vygotsky, 1930) as the locus for learning different subject areas. This project has been developed through three segments: *Principals and Coordinators' Board (ED)*¹², *Children Stories (HI)*¹³, and *Bilingual Education (EB)*¹⁴. The major topic for discussion is how to create opportunities for planning tasks to "educate" the whole community (students, parents, caretakers, teachers, coordinators, principal, researchers) on how to perform the world through citizenship actions. The methodology for the segments includes:

- *Principals and Coordinators' Board* intends to develop the directing board (principal, deputies and coordinators - PDC) as teacher educators who will support teachers' projects with students and community. In order to do that, some activities are organized, such as: monthly preparatory meetings with researchers, monthly meetings with PDCs, meetings with school staff, events with participants working with communities.
- *Children Stories* plans to develop *teacher support teams* (TST) that will work with their colleagues to develop play through story telling as a locus for student development. The activities in this segment include: monthly preparatory meetings with researchers, monthly meetings to develop *teacher support teams* to work with language in *play* as a tool-and result (Newman & Holzman, 1993/2002) in learning activities; TST meetings with their colleagues;
- *Bilingual Education*¹⁵ is organized through classes conducted by a teacher educator and student-teachers¹⁶ in order to: a) offer deprived kids the opportunity to play in a foreign language as a means of developing multiple ways of organizing their cognitive processes and their identities in a more flexible way and b) create a vicarious experience for student-teacher to learn how to teach different subjects/themes in a foreign language. This project is conducted through monthly preparatory meetings with researchers, weekly meetings, classes with teacher educator and student-teacher work with kids; events with participants working with communities.

3- Socio-Historical-Cultural Activity Perspective of Collaborative Intervention

¹² Equipe Diretiva

¹³ Historias Infantis

¹⁴ Educação Bilíngüe

¹⁵ Although this segment also presents many instances to contribute to the development of the topic of this paper, when it was proposed to ISCAR, the segment was still in the beginning. So the data from this segment will not be used for the paper.

¹⁶ Students taking their undergraduate teaching degrees.

The choice for an intervention research departs from the Vygotskian relevance directed towards theoretical-methodological choices to research results. According to him (1930/2001:65), research is seen as: “...one of the most important problems of the entire enterprise of understanding the uniquely human forms of psychological activity. In this case, the method is simultaneously prerequisite and product, the tool and the result of the study”.

This idea clearly reveals the essence of a research perspective that involves the position of the researcher as an apprentice throughout the research process. Along those lines, Magalhães (2006a-f) emphasizes the role of collaboration as an essential issue for the development of all of those involved in the process. However, this is not a simple task. The organization and conduction of a research process, which is simultaneously tool and result, presupposes that the researchers will learn how to conduct it while they do it, and they will develop their expertise in collaboration with their partners.

This view of research focuses on historically dependent activities in which subjects interact with other subjects in specific cultural contexts. The concept of activity is seen as departing from the philosophical concept of mediation as developed by Hegel and Marx for the understanding of the social existence of man. As pointed out by Davydov & Radzikhovskii (1985), Marx's idea of labor activity was the starting point for Vygotsky's analysis of tool-mediated¹⁷ activity. These activities were ways for men to “purposefully transform natural and social reality” (Davidov, 1990:75) through a combination of actions. These combined actions satisfy a definite need of the subject, are oriented towards the object of this need, disappear as a result of its satisfaction and are perhaps reproduced in different conditions and in relation to a changed object (Leontiev, 1977).

Activities for critical education are involved with an evaluation and reorganization of pedagogical actions that allow participants to discuss, analyze and review the social and historical forces that permeate their actions and that, many times, would have prevented them from transforming the situations they experience (Grimmett, 1988). They are seen as powerful instruments for social mobility because they enable participants to build new perspectives and to conceive their actions according to democratic ideals and to professional dignity (Kincheloe, 1997 and Freire, 1970). Mostly, these activities seek to achieve critical understanding of one's actions and of their attitudes in social, cultural and political terms.

This perspective implies overcoming the authoritarian and dogmatic perspectives both of common sense and of scientific knowledge by constructing a new dialectical perspective of the object in focus. This dialectical construction involves the utterance that materializes new concepts at work in a specific activity, such as critical collaborative intervention research.

In general terms, LACE, grounded by the questions of Applied Linguistics, brings about a new work proposal whose major goal is to develop and intensify the discussion about language that shapes human actions. For doing so, it searches for support in other fields of knowledge aiming at developing a work system that

¹⁷ In this paper, artifact and tool are used as synonymous.

entails a political and pedagogical project that allows transforming actions to take place.

In these contexts, the importance of language as a mediator in the construction of meaning in the interaction between researchers, practitioners and students stands out (Magalhães, 2006). It may also be considered as a tool-and-object of the teaching-learning activity, whose main reason is to meet the needs of the community participants so as to work with new knowledge, theories and didactical practices in their contexts of action, and to reach the idealized goal (Liberali, 2005).

According to Magalhães (2006: 223), “collaboration, in this conception, does not mean there will be no conflict, only that there are means of resolving it or of focusing on it to further learning and development during interactions.” Normally research is seen as an individualistic practice, which isolates researchers in a parallel universe from that of other researchers and other practitioners. This isolation eventually becomes a habit and participants start to feel insecure about exchanging opinions, discussing ideas and presenting points of view. Besides, there is also the problem of belonging to a group but not presenting differing views for fear of dispute, embarrassment or shame.

In opposition to that collaboration is understood in a Vygostkian way (Vygotsky, 1930/1978) as a process of participation in the construction of knowledge. The view of the Zone of Proximal Development (ZPD) as a region of conflict where the new and the old clash (as do all differing points of view) in order to build new concepts highlights the importance of collaboration for it involves the presence of the other as essential to the construction of new meanings. So, collaboration is directly linked to the idea of creating socially-situated contradictions.

Collaboration as the basis for intervention presupposes that people construct “zones”—the space between who they are and who they are becoming—that allow them *to become* (Holzman, 2002). In this view, the ZPD is the ever emergent and continuously changing “distance” between being and becoming. In constructing ZPDs, we do things we don’t yet know how to do; we go beyond ourselves (Holzman, 2002). Over the whole life, the ZPD is a place within the social situation of development, at which learning and development become mediated (Vygotsky, 1934: 27).

As discussed by Magalhães and Fidalgo (2007: 336-337), the

“Zone is not however unified; there may be more than one situation of conflict occurring at the same time and influencing the same outcome (...). While we were working to build trust and to confront ideas so as to challenge old meanings [in the teacher continuous educating program discussed] we were, at the same time, confronting our meanings as to the role we ourselves were playing in that educational context – would our roles be of experts or of outsiders? If experts, should we be more assertive in our questions? If outsiders, should we take a position of listeners? Collaboratively speaking, we ought to do a bit of both, stepping back and forth to build trust”.

Collaboration could also be connected to the idea of communities of practice as stated by Lave and Wenger (1991). When discussing different apprenticeships (Yucatec midwives, Vai and Gola tailors, US Navy quartermasters, meat-cutters, and non-drinking alcoholics in Alcoholics Anonymous), the authors pointed out that novice members normally join the communities and learn at the periphery. As they become more familiar with the activities of that community, they move more to the 'centre' of the particular community. Collaboration and participation in this perspective are integrated and full participation occurs as a result of "legitimate peripheral participation" (Lave and Wenger, 1991: 29). In more integrated collaborations, an emphasis on process, dialogue, and empowerment results in more flexible roles and division of labor (Mahn & John-Steiner, 2002).

These views of collaboration combine with the Bakhtinian concept of answerability-responsibility¹⁸. Bakhtin states that an utterance is produced by a dialogical relation with other utterances that are linked "in the chain of speech verbal communication" (Bakhtin, 1992: 319). It "refutes, affirms, supplements, and relies on the others, presupposes them to be known, and somehow takes them into account" (Bakhtin, 1992: 341) in a sort of never-ending chain, which Bakhtin calls "addressivity". In other words, the utterance is constructed while taking into account possible responsive reactions. At the same time, according to Clark and Holquist (1984), Bakhtin discusses responsibility as the action of responding to the worlds' needs that is accomplished through activities the subjects get engaged in. Answerability-responsibility includes the otherness, as a fundamental category of value that makes all actions and creations possible.

In the context of PAC, the intervention research conducted by LACE members is entitled Critical Research of Collaboration. In this intervention research, according to Magalhães and Fidalgo (2007), the understanding of the concept of collaboration is twofold. It occurs

- within a critical research paradigm for participants learning through participating in all moments of the research process (Bray, Lee, Smith and Yorks, 2000); and
- as a process of shared evaluation and reorganization of practices mediated by instruments in activities that may provide teachers and researchers with possibilities for questioning senses and creating new meanings to (re)construct knowledge, closely related to participants' needs.

These views of collaboration in the activities that compose PAC are not easily accomplished and this is the object of this paper.

4 - The means of data collection, selection and analysis

This study gathered the recorded and/ or annotated data of 10 preparatory meetings, 25 workshops, and six school meetings, distributed in the three years (2005, 2006, 2007) of the research project. The data was carefully selected based on the emphasis of this paper and on the type of participation conducted by the researchers. The chosen episodes presented in the paper refer to the following activities:

¹⁸ In Russian a single word: *otvetstvennost*.

- 4 preparatory meetings: 2 meetings from LDA 2005 (reports), 1 meeting from LDA in 2006 (reports and/or transcriptions), 2 meeting from LDA and AB in 2007 (reports and transcript)
- 4 workshops: 2 workshops from LDA 2005 (transcriptions) , 1 workshop from LDA in 2006 (reports and transcriptions), 2 workshops from AB (HI) in 2007 (reports and transcript)
- 3 school Meetings: 1 meeting form LDA 2005 (reports), 1 meeting from LDA in 2006 (reports and transcriptions), 1 meeting from AB in 2007 (reports and transcript)

It studies the position taken by two senior PhDs, three junior PhDs, two PhD students, two MA students and two undergraduate students¹⁹ in the conduction of PAC:

- two senior PhDs (SR²⁰), responsible for the coordination of the projects and segments: Fernanda Liberali (general coordinator) and Maria Cecilia Magalhães (LDA coordinator)
- three junior PhDs (JR²¹), responsible for the coordination and/or conduction of the segments : Rosemary Schettini, Alzira Shimoura and Mona Hawi;
- two PhD students (DS²²), responsible for the conduction of the segments and projects: Valdite Fuga and Monica Guerra;
- two MA students (MS²³), assistants in the conduction of the segments and projects: Sonia Fuji and Rosa Bronzon;
- two undergraduate students (US²⁴), junior assistants in the conduction of the segments and projects: Silvana de Oliveira and Viviane Klen Alves.

The analyses were carried out through an investigation of both voice and turn-taking distributions and argumentative procedures. Each text corresponding to the source under study (preparatory meetings, workshops or school meetings) was first analyzed by the lexical choices that defined the thematic content produced during the meeting. Then the voice distribution was analyzed in two ways: as per the reference in the reports to the people who introduced topics in the meetings, and as per the use of turns during meetings. After that, the number of turns taken in each of the transcribed meetings was analyzed and interpreted in the context of its production. Finally, selected parts of the meetings were made to study the traces of the researcher participation in the argumentative production of the meanings. Argumentative discursive characteristics (Toulmin, 1958; Perelman & Olbrechts, 1958; Dolz, 1996) were studied, based on: the presentation of points of view/ theses (including the topic studied and the criteria for evaluating it), the supports (grounding, warrant, backing), the counterarguments, the conclusion and/or deal.

5 - The discussion of the results of the three activities of the project.

The discussion of the data analyzed was organized based on the historical interpretations of researchers' participation in three different activities on the spot.

¹⁹ All the participants authorized the use of their names in this paper.

²⁰ senior researchers

²¹ junior researcher

²² Doctoral students

²³ Master students

²⁴ Undergraduate students

Preparatory Meeting (PM)

Preparatory meetings were planned as space for researcher to study, plan and evaluate their actions in the projects. They took place once a month and had different types of organization depending on the aim, focus, or needs of the group.

In 2005, when the LDA project was devised, not all the members of the group had had contact with reading, let alone with reading in different areas. The preparatory meetings aimed at the discussion of concepts such as critical reading of the world (Freire, 1970), genre (Bakhtin/ Volochínov, 1929 & Bakhtin, 1953), language capacities (Schneuwly & Dolz, 2004), the prototypical sequences (Bronckart, 1999) and their impact on the tasks prepared for reading in different areas. This situation led the senior researchers to develop preparatory meetings in order to discuss these topics while, at the same time, they started the preparation of the tasks and workshops to be conducted with the TSTs. At that time, the reports of the meetings described how Liberali and Magalhães presented the topics and asked about texts read on the subjects under study.

Specifically, in PM 2, the group was selecting expository/informative texts from scientific magazines and were supposed to separate narrative from more informative texts based on the characteristics under study. In order to do so, the JR, DS, MS, US were to present the text they found and justify their choices including supports from the theoretical text they had read. Whenever these participants presented the texts they had selected and their reasons for this selection, the SRs questioned their choices, and the whole group had to present viewpoints to either support their positions or counter-argue those of others. Many doubts were discussed and, in the end, the texts to be used in the workshop were selected. However, the issue discussion with the TST in the workshops was the sole responsibility of the senior researchers, who sent the slides to be shared by the whole group, but gave very few suggestions to change it.

In the second semester, the senior researchers had to travel to a conference, the First ISCAR in September, 20-24, 2005, and the JRs were to conduct the workshops in which the TST had to prepare the meetings to be conducted at the schools. In order to prepare for these workshops, Liberali prepared a plan for organizing the school meetings and discussed with the whole group how to use it with the TST. The discussion was intense and the reports stated mainly what each item required from the researchers while they were conducting the meetings. The slides for these meetings were prepared by the JR and sent, by email, to the whole group, which presented many suggestions.

This experience was very rewarding for the group. Although very insecure, the JRs and the other student-researchers became responsible for the activities and this gave them a sense of responsibility, which is essential for their future development as intervention researchers.

In 2006 the group of researchers further distributed responsibility. Each member became responsible for a group of schools and had to follow them up through the semester, as can be exemplified by the chart below. Because of this, in each preparatory meeting, the researchers had to make a report of their groups and of the

tasks and plans they were developing. This led to a more distributed participation during the meetings. Besides, since the TSTs were already involved with the process and had become more experts in the topics under discussion, the dynamics of the workshops changed to more mini-group discussions and workshop preparation. At that time, the TSTs were more involved with their colleagues' development and the center of the discussion was how to help them understand the concepts of reading and use them as tools to teach in their subject areas. The MS and US, who still had concerns about the topics, planned some questions to guide their participation in the workshops. In this sense, during the preparatory meetings, based on suggestions made by the senior researcher, the MS and US read both the tasks and its analysis done by the whole group and prepared questions to be used during the meetings. Simultaneously, JR and DS planned their roles in the conduction of the meetings. Their turns were frequently used to question theoretical points they thought relevant for the discussion to be carried out in the workshops.

Chart 2: Preparatory Meetings and workshops -2006

Schools	Planning days	TST members	School meeting days	Researchers in charge
2. Ke	18/08 Afternoon	S ²⁵ (Portuguese)	Wednesday 13/09 9h to12h	Hawi and Schettini
4. Ar	18/08 Afternoon	E (History) Z (Portuguese) N (Portuguese)	Thursday 14/09 17h to19h	Fernanda Liberali and Gláucia ²⁶
6. Te	18/08 Afternoon	L (Portuguese) M (Portuguese) MC (Mathematics)	Tuesday 19/09 10h to12h	Magalhães and Bronzon
7. As	11/08 Afternoon	R (Arts) B (History) AC (Geography)	Monday 11/09 12h40 to13h40	Hawi and Schettini

Source: LACE database

This movement towards more participation represents an important step also in relation to responsibility and addressivity. Each researcher became more involved and learned more about their roles, the essential concepts and the ways of conducting intervention.

²⁵ Only initials were used for the names of the teachers.

²⁶ Not all participating researchers were focused in this paper, as is the case with Glaucaia.

In 2007, some of the JR assumed the coordination of different segments of the project while the senior researchers had to organize the whole Extramural Program. At that time, the coordination was organized as follows:

Chart 3: PAC/ 2007 coordination

Program/ Project/ segment	Coordinator
PAC	Liberali
LDA	Magalhães
AB	Shimoura
AB: HI	Schettini
AB: ED	Hawi

This distribution of power involved more responsibility for everyone. For Liberali, it became essential to coordinate the whole program and support each coordinator in the conduction of the specific projects/segments in which they were involved. Magalhães had to assume, alone, the coordination of the LDA and the organization of the participation of researchers (both the newcomers and the ones who had been in the project in the previous year) in all the schools involved. Besides all the other participants who were still involved in this project, she also was assisted by the two MS, Fuji and Bronzon, who had already had some experience with the group in previous years and by Fernanda Cardoso (MA Researcher.) who entered the project that year, but was very experienced in the area and had visited the project some times in previous years.

Besides Magalhães and Liberali, the other researchers who took responsibility for some of the projects were: Shimoura – responsible for Play-Learn Project (AB) , Schettini – responsible for Children Stories Segment (HI), and Mora – responsible for Principals and Coordinators’ Board (ED).

When she took over the coordination of the AB, Shimoura was an expert in children education; however, she had to face enormous difficulties in moving from a participating position to the general coordination of a big project such as the one discussed. In order to do so, she planned the preparatory meetings very carefully and had pre-preparatory meetings with Liberali, in which they discussed the issues to be addressed by Shimoura in the preparatory meetings.

Schettini had never studied children education, but had turned to be an expert in TST education and conduction. So, she assumed the coordination of the segment and had Monica Guerra (DS), Ivaneide (MA Researcher), and Tina (MA Researcher) as her collaborators since they had plenty of experience in the area but none with the development of TST. She also counted on the participation of other researchers (MS and US) who were responsible for the different schools and TSTs. Similarly, Hawi assumed the coordination of the work with principals and coordinators since she had been a teacher in the LACE extramural courses for coordinators for a long time and knew how to discuss issues in this area. She was supported by MSs and USs who also had some experience in these extramural courses.

This whole scenario of new responsibilities led to a lot of tension. Each person had to assume new responsibilities, which would depend on and determine other people's actions. This movement led to contractions in the activity of preparatory meetings that can be explained in a ZPD perspective as a region of conflict where differing concepts stressed the importance of collaboration in the production of new possibilities for the whole.

In the selected preparatory meeting, the group had had an email quarrel about the visits to different schools and many were very annoyed with the attitudes of others. In this meeting, Liberali assumed the responsibility for the conduction of the first topic of the meeting that had as its main theme the discussion of some theoretical concepts that were decisive for the development of the TST group and for the group's reflection about the problems it was going through. Some of the topics discussed were: a) what is a social activity?; b) what is Acting as Citizens?; c) What are stories?; d) what are expectations?; e) what is teacher education?. In order to introduce these issues in a more theoretical way that would then move to the problems the group was facing, Liberali used long turns to present some considerations that were already part of the discussions of the group but seemed to need some clarification. For instance²⁷:

Liberali: (...) So it actually is all about creating conditions for people to have access. We need to remember our objective: we are in activities that deal with the issue discussed, the understanding, the actual discussion and the action. So perhaps we have achieved a certain level as educators – which is understanding – but we have not achieved an effective discussion or transformation, nor have we achieved efficient action. (*point of view presented*)²⁸

MS1: So this is our objective then? (*question for confirmation*)

Liberali: As a group this is our objective. And it involves the whole group. We have to think the whole time... We have to understand what is happening, we have to discuss what is happening, we have to suggest ways to change and we have to act so as to put these suggestions in practice. And why? Because we need to consider that we are not standing still. We change. We are correct at times, but we also make mistakes. (...) (*presentation of supports with explanations*)

PM: / 10/2007

In the excerpt, Liberali is discussing the concept of *acting as citizens* and she says that they have probably managed to achieve understanding, though she doubts it. However, she states that they had achieved real discussion and effective transformation of their practices. At that, an MS wants to confirm her point about the objective of the group. It is very relevant to have this question since this MS was new in the group and is still in doubt at what some of the ideas shared by the group were. In a sense, these ideas became crystallized and nobody discussed them anymore for they had it in their minds that they all shared the same understanding. The contradictions faced proved them wrong. To clarify the idea for the researcher, Liberali gave examples and explanation of what this meant.

²⁷ The examples were translated from Portuguese into English by Claudia Winter, Ana Paula Cortez and Sueli Fidalgo. I thank them very much for this.

²⁸ Italicized comments in parenthesis correspond to the analysis.

The whole discussion moved from the theories studied to the problems faced and the conflict was elucidated. Then, Liberali used the speech of one of the participants to set up the “hot” topic, and to introduce the topic of collaboration.

Liberali: Of course. So, “collaborative action for knowledge construction”. What is a collaborative action? (*controversial question*) Schettini started the meeting saying that she was uncomfortable. I agree with a lot of the things that she said, but I disagree in one fundamental aspect (*presentation of point of view with opposition*). I think that everyone has to tell each other what they do not agree with, what they think is inadequate because I may be in a place in which I do not receive criticism and may be doing a lot of things wrong (*supports*). And I don’t think this is what we want to keep (*point of view restated*). We need to be critical all the time, all around. Now, how is this criticism going to be spelled out? We need to learn how to do this so that nobody will feel bad about it. (*support with explanation and suggestion*) Because in all this mess [reported in the meeting] if I were Norma, I would feel really bad. I would be feeling guilty: ‘I am guilty because I did not give anyone else the information.’ I think this is it. Collaborative action is not putting the other in the position of “devil”. All of us will always make mistakes. (*support with example and explanation*)

JR: But I want to tell you something. Monica L. went ahead because she knows the situation a bit better. That’s ok. But I didn’t see that email as the type of criticism that was mentioned here by Schettini or by the rest of you. But this is me. What I saw in that email was a report of what people had said. That’s all that I saw. (*presentation of point of view with support as an opposition to previous view*)

Liberali: So, then I will tackle the second point: I am negatively impressed by the type of descriptions made. (*use of new topic posed to introduce another support to previous view*) Think about it, everyone, I was not there and I don’t know what happened in any of the nursery centers. Actually, I don’t know anything. So I think that the problem is not that... I think that Monica L. did not want to be aggressive to Schettini or to Norma. (*support with example about description not made*)

Shimoura: It’s exactly what you are saying, that report does not bear any theoretical sustainability. If she is the person responsible for it, she should know. “No, Schettini, we forgot, and the date is there.” If the group does not know what is happening, then nothing will happen. It really did put Norma down on the sheet; she forgot. She had the obligation of knowing which day is the citizen agent [project]. (...). (*presentation of point opposing of view with support with examples*)

PM : / 10/2007

The flow of this conversation shows instances of argumentative language in a conflict situation. Participants had differing views, and were competing in discourse in the attempts to both present their views and understand those of others. The JR and Shimoura tried to make their points with support from impressions or examples, believing that their ideas could contribute to the group. The JR expressed her position trying to justify her view which was contrary to what some other members of the group seemed to believe. As an answer, Liberali used the support given by the JR to introduce another topic that was essential to the group: ways of making reports.

This topic had actually been the ignition for the problem since one JR believed that the ways a MA researcher reported her actions was (1) not appropriate and (2) did not represent what had actually occurred in the event reported. This led to a conflict and lack of action which, for part of the group, seemed to reflect lack of responsibility.

In the group no one seemed to feel insecure about exchanging opinions, discussing ideas and presenting points of view. The feeling of belonging in a way provided room for the participants to make their contributions, assuming positions and power in the relationship. However, the discussion presented shows how assuming responsibility and answering to it may be very hard.

Workshops

The workshops with researchers, supervisors, and teachers were planned as places to work with reading and play and with TST development. Besides, they were also used to contribute to the preparation of workshops for the school meetings. In these workshops, the TST, formed by teachers of different schools, gathered to discuss how to critically read different genres in their own subject areas (LDA) and how to use children stories as a starting point to work with play in the classroom (AB); to discuss teaching-learning approaches to discursively engage in social practices through reading; and to develop tasks to work in the communities with their students.

Normally, the workshops were organized to:

- introduce the researchers involved in the project and who were present on that specific day;
- recover the topic discussed in previous meetings;
- form group discussions about the topic of the day;
- make whole group presentation of small group discussions or plan tasks;
- close and plan the following workshop and other activities.

In LDA 2005, these workshops were mainly conducted by Liberali and Magalhães, SR, who were responsible for developing the whole group discussions and for guiding the small group discussions as well. In the conduction of the whole group discussion, the SR introduced the objectives, posed controversial questions, questioned the participants in order to lead them to support the ideas presented, as in the examples below.

Liberali-... About the project again, what you're doing here today is to participate in a group, which will be a support group for schools, now we kind of have an idea of how this support group would work. The idea of the support group and that here you can build up things that you can use and develop with your co-workers in your schools, then it's not only doing the course and afterwards I use it in mine (my classes). The idea is that you, together with the other co-workers who are also doing the course, can form a group inside the school to work with these ideas there and you'd be a support group in this area of reading in different fields at schools. *(describes the objective of the project and explains its characteristics)*

WK 03/06/05

Most of the times the JR and DS helped in the small group discussions by posing question and/or simply following the discussion and whenever they thought there was a problem they called Magalhães and Liberali to help the group. In this sense their task was mainly to detect problems and ask for help. The MS and US, at this moment, acted as members of the TST. Many times, they faced the same doubts and asked questions or even answered questions posed to the TST. In other words, they participated just as the TST did.

During the SR's trip to the First ISCAR, things changed and the JRs and DSs had to assume more participation in the conduction of the workshops. These workshops were mainly used to prepare the school meetings and the JRs and DSs used guidelines for their participation. During these workshops, they created opportunities for the TST to question and expand the tasks they had previously prepared to use with their colleagues in their schools.

In the following example, the TST had to expand their ideas on the tasks planned and on the ways of conducting the school meetings. The group on focus was organized by history teachers. However, they were supposed to work with the whole school. In a certain way, this sounded very scary to teachers because they did not know about all subject areas and doubted if they could handle questions from their colleagues. Schettini posed the controversial question to raise the issue among the participants and, then, conducted the discussion on ways to plan the meetings, having a more flexible perspective.

Schettini- and if the guys of the mathematical areas ask for your help, what are you planning to do? (*controversial question, based on possible actions to occur during the school meeting*)

T 1- Oh, yes, we are still thinking about having a look at it. (*showing concern about the topic*)

Schettini- Because in this group everyone teaches history, but they are thinking about making a group for everybody. Everybody is here, right? (*supports her reason for questioning*)

T 1- Oh, yes, that's why I'm asking you, we are worried about teaching a content which is not related to our area. (*supports reason for doubting*)

WK 19/10/2008

Besides, in these meetings theoretical doubts also occurred. In the example that follows, Hawi questioned the tasks presented by the TST member and brought some theoretical considerations to the discussion while, at the same time, relating a task prepared by one teacher to that of another one.

T.: You can see that they are asking questions about the text... so... it would be better in... the textual organization section... referring to the text... these stick marks... they show each of the effects... they show why the boy wishes to... (not understood). In the first bubble you can see ... what does this bubble show? a character's speech... And the second? It shows a reaction... a character's emotion... it is important for people to identify this too... And the other one... shows thought... the person is...(describes actions)

Hawi : When you ask the fourth question there... note that the strips change sizes... what does this mean? (*controversial question*) If the teacher looks at the ability...

what ability is s/he looking at? “Recognition of the punctuation effect over sense making...” I want to make an exercise for my student to know what the bubbles mean... you took that part into account there... (*poses theoretical question and answers*)

T: (the cover?) Do we include it there?(*question for clarification*)

Hawi: yes, you do...(clarification) for example... the physics teacher can use a cartoon... do something related to your story... what are you doing? You are contemplating both the production context, the textual organization, linguistic aspects... as well as... then s/he uses a sentence in between inverted commas... why is it important that this section be in between inverted commas? (...) (*explanation based on theoretical discussion and examples*)

WK19/10/2005

In 2006, the movement towards more active participation of the JR and DS was consolidated. They took responsibility for conducting parts of the meeting when they presented the theme and guided the tasks. The MS and US also found a more effective role than that of simply recording/ videotaping. They were responsible to work with the groups of TST and they were supposed to ask questions to help the TST remember essential issues to be addresses when planning a lesson based on a specific genre.

In the example that follows, Fuga, a DS, questioned and guided the discussion in a small group. At this moment she assumed the responsibility for the topic to be debated together with Shimoura, a JR. The situation is similar to that experienced by Schettini in the previous example. Teachers are worried about how their colleagues would learn about reading in different areas. The TST member was worried about how to introduce so many theoretical concepts and how to deal with them in her school in a short amount of hours. Fuga and Shimoura guided them to think of possibilities for their plans and present new possibilities that they could not devise.

T: I would have to explain to them, what comic strip it is, what is the participant, the objective, the place, the content, what textual organization means, what a narrative, a description is. Because I am going to have history, geography teachers... (*teacher presents her opinion and justifies it*)

Fuga: So you are actually talking about the theoretical background that lies behind the unit you prepared. (*tries to directs position taken*)

T1: yes,..

Fuga: So your question is how you are going to work with everything in these two hours.(*researcher reposes the controversial question*)

T1: Yes.

Fuga: yes.

T1: that is what we are worried about. Because I have to work with this thing (*pointing to the part of the chart*) because it is very complex. Yesterday when we did a preview, I felt this.(*points to the chart*) (*point of view on the situation and reason*)

Fuga: the lack of this part.

T1:This was lacking and I felt anxious because in actual fact, when I showed this to them, I felt: “ Wow, how can they understand this now?” (*support with example*)

(...)

T 1: I had thought of a task for them to develop, but how could they if they had not seen [what we saw].. *(support with explanation)*

Alzra: And have you thought about anything? *(controversial question)*

T 2: in the systems

T 3 nods

Shimoura: Have you thought about any suggestion to solve this problem she is describing? (Addressing the other teachers) *(controversial question)*

T 1: No, because it happened last night. (...) *(justifying the answer)*

(...)

Shimoura: This is what I think: How would I work? It is just as you said. So you have a group who has seen it before and another one who has not. But those who have seen it before worked with a different genre, as you have just said. So you are going to work with something new, although some already worked with the project last year. Anyway, how can we work with this? ? *(controversial question is restated)* It is not an easy thing. You have been working with this for a year and a half, haven't you? How can they understand it (pointing to the chart) so quickly? If this is the only focus, they won't understand a thing for they won't be able to see it in practice. If they see the practice, they won't understand what lies behind it.

(describes situation stated to pose the problematic situation)

T2: what lies behind, yes. *(agrees)*

RE2: so why are we doing this? So my idea is: the thing should be interwoven. It would be important to present the project, who the group is, what its aims are.

"Why are we here doing this?" This is necessary, obviously, to contextualize. But I would do it this way: I would give them copies of the text, like you did (to a teacher) and Fuga said, and would ask:" what is a comic strip?" As you did in the beginning of the unit. To explore the situation of action. If you did it great, you take advantage of that. You can do it orally (...) *(presents suggestion with examples and explanations)*

WK 11/08/06

Similarly, Schettini and Fuji, an MS, discussed with teachers from different areas how to deal with the reading of cartoons. They tried to make it explicit to the teachers that their choice was appropriate because it related reading to the transversal topic (saving energy). Besides, they see the connection between reading, the transversal theme chosen for critical discussion and the correlation they can make with their subject area.

Schettini: so, ok, then, specify ... what citizenship action did you choose?

(controversial question)

((difficult to hear)) (TST answers the question but it is inaudible for transcription)

Schettini: because we are the... pains of language... from the applied linguistic area, we... "create possibilities for"... something... so "creating possibilities for"... or "a space for discussion about the balanced use of water and electricity". *(asks for clarification / restatement with reasons based on the group affiliation to linguistics)*

T 2: creating... a space.. *(tries to clarify)*

Fuji: about the rational use of water and electricity... *(helps clarify)*

Schettini: it's all in the text... can you see? Can you see a link with... *(gives support)*

T2: Ah!ok... this..
 (...)
 T1: the theme would be water... ((several voices))... It has to do with cubic meters... *(gives support based on the specific topic under study)*
 Schettini: the HTPC²⁹ needs to be useful for the school... *(gives support based on the the need of the school)*
 ((several voices))
 Fuji: Ah... is there any waste? *(asks for clarification)*
 T3: because quite often there is also shortage ... *(gives support/reason)*
 T4: water shortage... there have been... moments in which there was lack of water for a week... *(expands support)*
 Fuji: Wow!...
 T2: in the dry period, we had water rationing measures, there was water shortage... In São Paulo, there is no rationing measure for water supply, is there?... *(expands support)*
 WK: 11/08/06

The examples from 2006 describe how JRs, Ds, Ms started to assume more turns and to question TST to conduct discussion in a more collaborative way. As discussed by Lave and Wenger (1991), novice members started to learn at the periphery and began to move more to the centre. The discursive practices show that more flexible roles and division of labor were being constructed.

In 2007, the whole group had a more specific role in the workshops, took turns and assumed parts of the tasks. The role of the conductor of the meeting who was responsible for triggering reflection among the TST may be exemplify by the way Schettini questioned the teachers about the reasons for them to be chosen as members of the TST. Teachers had been presenting positive reasons for being chosen and accepting the role of a TST member. However, Schettini wanted to make them reflect and present opposing ideas which would help clarify their new status and possible problems they would face by assuming this new status. Her way of posing questions and insisting on asking participants to support their answers demanded more elaborate replies which were essential for the development of the whole group and for sharing ideas.

(9) - Schettini: Some speaks differently; some say: "I don't know what I'm actually doing here." *(controversial question)*
 (10) -T3: I asked my coordinator this question. "Why me?" *(reports on experience of reflecting on the theme)*
 (11) - Schettini: Ok, so you have no idea, right? *(reposes the controversial question)*
 (12) -T3: "Aren't you always saying that you have high self-esteem? Well, this is the moment. (...)" *(gives support by reporting her coordinator's answer)*
 (13) -T4: I think that the support group is real support, isn't it? the support group has to be well formed, very close together so as to have a certain sense of complicity! *(presents her view of what TST is in order to support her choice)*
 (14) -Schettini: What else? *(questions deepen the discussion)*

²⁹ Weekly meetings for teacher education – time partially used for the conduction of the LDA and the TST projects in regular schools – the school meetings in this text.

(15) – T4 – Schettini, something like this, I don't really know what we can do for each other. These questions here, but that are not really here. (...) (*expands with reference to material distributed*)

(16) - T5: I believe that what we are doing is support someone who needs support. So, let's imagine that I'm going to give some suggestions of how to help someone who needs support and that I know how to help this person in their teacher education process. (*expands support with example*)

(17) –T6: I believe we are going to discover the unknown. (*expands support with expectation*)

W 09/03/07

Besides posing the controversial question, Schettini asked other questions to make teachers present their ideas in a more elaborated way and also presented the views of the group concerning the importance of each person's participation. Monica Guerra also helped to clarify and expand the ideas presented by Schettini, as in the following example. Through discussion, participants could get involved with the evaluation and transformation of their pedagogical actions. The combination of actions distributed among the participants, especially the questions of the researchers, was very suitable to guide the TST towards each specific participant's need - since they could bring to the activities their own aims concerning their specific students.

Schettini – (...) What is going to guide our actions now is “how”? How can we plan this activity, with a view to achieving that citizenship action that is the “big” aim? That citizenship action that is daily, with our students, based on the need for that context. How? (*recovery of the controversial question*) And then, there are four activities here that we have prepared and to which we will go back every now and then. For example, these questions. Do you think these questions, designed as they were, can they make my student understand why that reading was chosen? The content for their ages? The content linked to the knowledge areas and with the age groups. Do you think these questions will cover these issues? Let's think! “Who has ever been to the dentist? Who has never been to the dentist? Why do you go? Why do we need dentists?” Do you think these questions are dealing with this critical view? Are they enough for this critical view? (*use of example to question teachers' tasks and to expand controversial question posed*)

Monica Guerra - By considering the theoretical background in which you support your pre-school education in the subject areas. This is what Schettini wants to know. Is there room to discuss this kind of topic – about the dentist? (*clarification of controversial question within domains of specific preschool education*)

Schettini – That's it, we are thinking of this idea of citizenship action. So let's go! (*reference to the main topic of the controversial question*)

T 10 – I was actually thinking of how we could broaden it a little more. (*attempt to introduce suggestions in relation to the controversial question posed about tasks designed*)

Schettini – What could we broaden more? (*question for clarification*)

T10 – Everything you said. The presentation. I think all this needs some presentation. “What is the dentist? What is the dentist's role? Who has ever been to the dentist?” because there are children who don't even know who or what the

dentist is. And then if I say “Who has ever been to the dentist?”, they will say “Aunty³⁰, what is a dentist?” “What does he do?” So I think that first of all, we need this information. (*support with example and explanation*)

W – 10/07/07

The idea that there can be a movement from the periphery to the center is clear in the examples above. Similarly, the involution of turns by the SRs is important. While other participants assumed more important roles in the division of labor of the workshops, SRs moved to a more peripheral participation in these activities. They had a lot of work in discussing the workshops previously and reflecting on what happened later. However, in the meetings, they assumed the role of supporters and were asked to assume the conduction of meetings only in very few moments when a theoretical or a practical matter demanded. As a whole they got a less central participation in these activities. The discussions, the movement and the flexibility of researchers in the activity can be viewed as powerful instruments to conceive each action according to democratic ideals and distribution of power.

School Meetings

The participation of researcher in some of the school meetings was designed to give support to the TST when facing their fellow colleagues in their own schools. Since these teachers who belonged to the TST had no hierarchical position and some lacked self-confidence when dealing with very complex context of some schools, the idea was to create a situation where the researchers would collaborate to the actions of the TST, if necessary. The idea was for the TST to develop teacher education procedures for a) teaching reading in different subject areas (LDA) and b) using Children stories to introduce play (AB) and c) developing ways for critical participation in the communities (LDA and AB). These meetings were coordinated by the TST with the support of the researchers and/or supervisors from the Secretary of Education during both the preparation and the conduction of the meetings themselves.

The TST was totally in charge of everything that had been planned and developed in the meeting. The idea was for the TST to take the units they prepared during the workshops and discuss them with the rest of the school staff. Each TST chose a different way for conducting these meetings depending on the project, the context of their schools and theme of the year. Some prepared the meetings as a vicarious experience, that is, their colleagues would join them to read/play as if they were the students. In other words, the staff experienced the tasks prepared by the TST as if they were students. The TST also had discussion on the theoretical background of the work they were doing. Normally, it was in this part that researchers were asked to contribute.

The reports on the school meetings of 2005 state that researchers’ participation varied tremendously depending on the TST and school where the meeting took place. In some schools the researchers were introduced and explained the project before the task actually took place. In others, the TST made the whole presentation and the researchers were invited to speak only when doubts appeared or to say a

³⁰ In Brazilian pre-school contexts, the teacher is sometimes referred to as “aunty”.

few words at the end. In these situations, senior or junior researchers normally took the position as the ones responsible for talking on behalf of the group. Many times, the principals or coordinators also asked the researcher in charge about issues concerning specific problems of each school that were not directly related to the topic under study.

The participation of researchers in 2006 was very similar; however, some of them were already familiar to the school staff (they had been there in the previous year and/or were collecting data in some classes during that year) and could count on a less formal relationship during the meetings. Besides, the JRs were much more confident to introduce the concepts and ideas of the group as in the example below. However, in certain aspects, researchers assumed the TST positions and took their roles when it was not necessary. Since the teacher seemed a bit confused or ashamed of introducing the topic, Schettini took the turn to introduce the topic of the discussion to be held. Although she stated she did not want to spoil his presentation, she assumed the role of the person responsible to state the objective and procedures to be taken. Similarly, Hawi expanded the presentation giving more details. In a way, they both took the floor from the TST and, instead of waiting for them to ask for help, they took over the role of the conductor. This shows an instance of the process of learning to leave the central position they had just assumed in the workshops. This movement of getting to the center and moving to the periphery is quite difficult and can be viewed in the example presented.

T1: Well, the general aim, you know, are general aims, which is to gain knowledge from different areas by means of reading. In the case presented here, it refers to the water bill. In this case, this is what I used; the rest are specific objectives – and in this case, the specific objective would be to work with the unit of volume.

(presents the task used as example to introduce the topic)

Rosi: G., just a minute, I don't want to interfere, but I think it is necessary to clarify that this activity that they all completed together is common for all the subject areas; what we did is common. After that, each teacher will prepare the unit for their own subject, to work with their own content areas – G. and his group have chosen Math. So, up to now, everyone does the same thing, everyone is working with an action situation, with the textual organization, and with the linguistic aspects. After that, everyone is probably thinking: “ok, and what about my own area?”; well, now we have the subject area division. *(states the purpose of the discussion and the procedures to be taken)*

Hawi: For example, G. is going to use this in the fourth quarter of the school year; so he is using it according to the content that he has to cover according to the requirements of the Ministry of Education, which is already in his year plan, the plan which you made at the beginning of the year and so on. *(restates the procedures to be taken by giving an example)*

In the schools meetings that occurred in 2007, similar positions were taken. However, researchers understood their position as more collaborative than conducive. In the example below, the TST and even some of the researchers were facing trouble in dealing with the explanation and use of the concept and relationship between social activity, play and children story. At that moment, Shimoura assumed the discussion in order to help clarify the discussion. She

interrupted the discussion to try to clarify the concept of social activity and used different names and examples to help TST understand the concept.

Shimoura – Let me tell you something. Let us change something. Let me interrupt you for a minute. Let change the expression “social activity” for “social situation”. Perhaps it will make more sense, ok? It is not wrong to change because some authors do treat this as social situation, ok? So, let’s think: What is a situation? It might be easier to talk about this than about an activity. (*suggests changing the word and explains why*)

T5 – I think I understood, sort of. For example, in the Math lesson. The teacher organizes a type of fair (or small groceries store) with the things, counts the money, and what the parent can and will or will not buy. So this is in the classroom. And when they [the children] go to the groceries story they will see the same things. So they will be able to see what money can buy. So they are acting in the world. (*gives example to try to check her own comprehension of the concept*)

Shimoura – I’ll take it from there, because it is a good example. There are several things to add to in your example. Let’s think of what she said and let’s think of the following: in the world there is something called an open fair, right? (*uses T5 example and questions about participants’ reality*)

T4 – Yes, there is

T2 – yes.

Shimoura – Ok, there is the open fair. There are food fairs. There are equipment fairs. There are arts and craft fairs; book fairs, aren’t there? (*presents example*)

T4 – Right.

Shimoura – Aren’t there these things? Education fairs. When there is a car equipment fair, all the manufacturers attend, and so do all the engineers, etc., right? Why am I speaking of people who visit the fairs? Because she said that there needs to be the other in this situation, isn’t that so? So, let’s think, We go to the book fair. We go to the Biannual Book Fair [in Sao Paulo]. Is this a social situation? Can we think of the book fair as a social situation? Why? Because it is in the world. Because in this fair, I will interact with other people. So, we need to know, what I can see there? Where it occurs? At the Biannual Book Fair Pavilion, When does it occur? Ok? Is there an audience for this? Who are the participants? Who can go? Who usually goes to book fairs? Because there must be book stands – the people who are interested in exhibiting books. The large publishing houses and bookstores. They keep thinking of the public who will attend, don’t they?

(*explains relating example to concept*)

(...)

The participation of researchers in the construction of knowledge of the whole group in the different activities of the Creative Chain (Liberali, 2006) has to be very flexible. They move from center to peripheral positions and vice-versa all the time and this involves socially-situated contradictions. These contradictions produce a collective ZPD as a region of conflict where peripheral and central participation becomes the object and tool of the learning process of all researchers. Moving to the periphery and having to take a central position are equally hard positions to learn for gathering and sharing power is not only a question of competence but of self and others’ understanding and reliability. This process highlights the importance of collaboration for it involves answerability-responsibility as a central

concept. Having to experience these situations researchers are called to perform beyond their possibilities (Holzman, 2002).

6 – Concluding Remarks on the Production of Shared Meanings in the Creative Chain

The results of the study indicate that novice researchers moved from a peripheral to a central participation position, assuming a greater number of longer turns in the discussions. Besides, all the researchers seemed to have learned ways of questioning the others to prompt more elaborate replies and forms of presenting opposing views in more critical, though friendly, ways. The study also showed that when senior researchers provided the novice researchers with more responsibilities, they all tended to move beyond their possibilities to find ways of creatively participating in the joint construction of the Program. Moreover, all researchers engaged in a process of learning to be flexible about moving from periphery to center and vice-versa during the different activities of the Creative Chain.

This group of researchers believes that becoming an intervention researcher who works for the conscious development of the individuals' responsibility of being and acting in the world involves reciprocal transformation which implies that the answerable-responsible being is not only responsible for his own actions but also for the others. Learning to become intervention researchers, thus, is not seen as an easy task. In the process of participating in intervention research projects, learning is connected to increasing responsible participation in activities of the group which "concerns the whole person acting in the world" (Lave and Wenger 1991: 49).

This whole discussion leads to Freire's assertion (1970:78) in the epigraph of this paper:

"nobody teaches anybody, nobody teaches oneself, but all human beings teach each other, mediated by the world".

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