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Introduction

Isolation is a frequently emergent issue in teachers' conversations about their experiences and concerns. Through these collegial conversations, teachers discover the power of collaboration for their own development and that of their students. The celebration of this discovery is described and documented in this paper by examining their discourse as they talk and write about their experiences in doing teacher research in a collaborative atmosphere. Using Sampson's (1993) poetic expression, teachers were "Celebrating the other".

The study of collaboration is only one dimension of a larger project on teacher research and professional development in a master's level enhancement program for in-service teachers. Teacher research was a core component of the enhancement program curriculum: participants were required to do a systematic inquiry project in their own classrooms. I was responsible for the basic orientation, methodology and content of the research dimension of the program, although the whole staff (coordinator, support teachers and university faculty) worked together in the planning, implementation and evaluation of all the program activities. [1]

Collaboration: Piaget's and Vygotsky's Perspectives

Collaboration has been studied mostly with children. For both Piaget and Vygotsky, social interaction plays an important role in the cognitive development of children, although it is necessary to specify the conditions under which it is really effective (Tudge and Rogoff, 1989). Piaget (1995/1965) points out the importance of sociological knowledge and social life for the development of logical reasoning: "since human knowledge is essentially collective and social life constitutes an essential factor in the creation and growth of knowledge, both pre-scientific and scientific". Meanwhile, Vygotsky's (1978, 1989) historical-cultural law of development of the higher mental functions, as well as his notion of the Zone of Proximal Development (ZPD), are clear projections of the way he understood the social nature of the psychological process. Thus social is not only another factor for cognition besides the psychological and the biological, as Piaget maintains, but the origin and an inherent part of the development of the human psyche. Both Piaget and Vygotsky claim that social interaction is essential for cognitive development; however, a clearer grasp of the role of social interaction in Vygotsky's theory is obtained by looking at its intellectual basis; that is, his commitment to apply Marx's historical materialism to the study of psychological phenomena. Hereby arises the importance of historical development of the psychological functions (genetic method), the social origins of mind, and the role of tools

as mediators of human activity. In this respect Lee (1987) remarks that Vygotsky's roots of these ideas came from his understanding of Marx, Hegel and Engels. Hence, his primordial intention was to write a *Das Capital* for psychology.

In the study of the role of social interaction on cognitive development, Piaget privileges interaction between or among equals assuring symmetrical relations of power, whereas Vygotsky privileges adult-child, or novice-expert partners to create a Zone of Proximal Development (ZPD) (Tudge and Rogoff, 1989; Tudge and Winterhoff, 1993). An important extension of the ZPD notion, from dyads to a whole classroom, has been realized by Moll and Whitmore (1993), which they call the "collective zone".

Another typical perceived difference between Vygotsky and Piaget is that concerning the mechanism responsible for cognitive change: cognitive conflict vs. collaboration. Cognitive conflict as a motor for reaching equilibrium has been associated predominantly with Piaget's theory (Forman and Cazden, 1985). As Tudge and Winterhoff (1993) and Bidell (1988) argue, followers of both have magnified their differences, hence overshadowing their communalities. For Piaget, individual operations as well as collective operations (co-operation) are necessary for achieving logical equilibrium: "individual and collective functions make appeal to one another in explaining the conditions necessary for logical equilibrium" (Piaget, 1995/1965, p. 154). Thus, co-operation cannot be eclipsed by conflict. On the other hand, Vygotsky's ideas on peer interaction and collaboration involve socio-cognitive conflict in all cases. We need to remember that he built his psychological theory on the concept of dialectics (contradiction and struggle of opposites) and Marx's historical materialism. Kruger (1993), working within the two frameworks, calls for a redefinition of both: Conflict and collaboration in a 'reasoned dialogue' including different points of view and their critical examination as crucial for moral-cognitive development in children.

Piaget's and Vygotsky's frameworks are much less used in areas outside cognition and in studying other subjects than children. John-Steiner (1996) and John-Steiner, Meehan and Kennedy (1996) study scientist collaborators from a Vygotskian perspective. Both Vygotsky's and Piaget's frameworks are used in the present study to understand peer-interaction among experienced teachers engaged in doing classroom research.

The integration of teacher research, here called Systematic Inquiry, as a core component of the enhancement program is a further advance in what is already an innovation in teacher education. Teacher research is considered an epistemological movement with direct implications for professional development (Anderson, Herr and Nihlen, 1994; Cochran-Smith and Lytle, 1993; Wells, 1994). As teachers engage in classroom inquiry they move from an epistemological dependence on 'expert' knowledge to a liberating epistemology of teacher-generated knowledge. At the same time they are building communities of inquirers and transforming their teaching. The staff of the enhancement program modeled a collaborative team for participants while encouraging them to work together and to support each other.

The specific purpose of this study was aimed at identifying and describing the collaborative situation in which teachers recognized peers' influences over their own transformative process in doing systematic inquiry in their own classrooms. This happened within an environment where

sharing and collaboration among peers and self-reflection on their practice were highly valued, facilitated and encouraged.

Research Approach and Methods

This study is framed within a developmental and process-oriented approach to the understanding of the socio-cognitive processes of teacher-researchers, and is rooted in both Vygotsky's and Piaget's genetic method for the study of higher mental functions. The methods for collection and analysis of data are essentially qualitative.

This study began as a curricular innovation that turned into a research project by the author. The integration of teacher research into the curriculum of the enhancement program was considered exploratory. It was based on an inductive method by which teachers' understanding and conceptualization of the principles of research grew from their experiences in doing their own classroom inquiry.

Twenty-four participants in the enhancement program (22 female and two male) consented to be part of the new research project. Sixteen were European-American and eight Hispanic; they were teaching in public schools from elementary through high school, mainstream and special education.

As the semester went by, we as staff tried to keep track of the teachers' inquiry projects, as well as their own perceptions and articulations of them. I took notes of the whole-group conversations and of the support-group meetings as I rotated through all of them during the year the program lasted. Oral presentations of the inquiry project and the master's presentation were tape recorded. Other sources of information were the teachers' work-in-progress reports and the self-reflective evaluation of their growth by attending the enhancement program.

Looking through all these data, I saw that celebration of collaboration was a very salient and consistent pattern of teachers' perceptions of their own experiences in the program. It became very appealing to focus on and closely examine their discourse related to this specific dimension: their perceptions of the collaborative process, especially peers' influences on the development on their own classroom inquiry.

Dimensions of Peer Collaboration

Although there were various occasions on which this group of teachers was prompted to express their experiences and feelings of collaboration, there were also several occasions when these teachers spontaneously celebrated their collaboration. Those commentaries referred to their peers in the support groups, especially the inquiry group, as well as the staff and assistant teachers at their schools. Most of the commentaries were of celebration and can be grouped into five dimensions: 1) affective support, 2) guidance/help, 3) sharing/learning, 4) different perspectives, 5) challenge. Actually, the challenges represented, for some of the participants, the need to face somewhat uneasy situations, although within an overall atmosphere of collaboration. Each of these types of celebration discourses includes distinct and personal ways of experiencing a

particular peer's influences. In Table 1 there are presented the five types of celebration discourse with their corresponding ways of experiencing collaboration.

Table 1: Types of celebration discourses of peer collaboration

1. Affective support	2. Guidance or help		3. Sharing/learning	4. Different perspectives	5. Challenge
	From SIG:	From staff:			
Validate ideas and actions	Ideas	Help for collecting information	Sharing methods and techniques to collect data	See things from different viewpoints	Being pushed
Contagious enthusiasm	Suggestions	Assistance in finding their own ways	Learning from others/learning together	See others' ways of teaching	Being questioned
Encouragement	Non-judgemental criticisms		Learning together/constructing meaning	Resistance to accepting a need for others' point of view	
Facilitation for taking risks	Responsiveness		Readings		Conflict with PST
Providing a safe and non-judgemental atmosphere			Articulation		Uncomfortableness - anxiety

Affective support: Twenty out of twenty-four participants mentioned support as an important contribution of their inquiry group. This support was mainly in terms of validating ideas and actions, contagious enthusiasm in looking for ways to solve a problem at hand, encouragement, facilitation for taking risks, and providing a safe and non-judgemental atmosphere. Laura found out that cooperative group work was the perfect match for her learning style. She celebrates the support from her support group peers in doing her SIP, in these terms: "One of the biggest assets for me was the positive support and the assurance from my SIG pals [friends] that what I was doing was okay!" Meanwhile, Brandi used a colorful metaphor "Red Life Jacket" for referring to her inquiry group. Thus, no matter what tribulations she was going through, her peers were there

to 'save' and 'support' her. This metaphor was part of an ensemble of metaphors she compiled as a 'journey by boat on a river', to refer to her year in the enhancement program.

Guidance and help*:* About half of the participants recognized the guidance and help received from their own inquiry group and from the staff, and especially their peer support teachers. Precisely in this respect Joline wrote in her project report: "The enhancement program staff provided me with a rich foundation of information, directions, language, goals and challenges to get me on my way. I was encouraged and guided by the responses and suggestions from conversations with and connections made by my support group". Most of the teachers gave credit to their peer support teachers for helping them to collect their information and for assisting them in the process of studying their teaching.

Sharing/learning: Everyone in the group had something to say about sharing ideas, methods, procedures, activities, and/or learning from their peers while making meaning of their experiences together. They also realized that conversations among colleagues teaching at different academic levels can be interesting and beneficial. Lorraine, a high school teacher, wrote in the reflective evaluation of her inquiry group:

I have learned a lot about other areas outside of math, such as the peculiar relationship between poor readers and good artists (Margaret's inquiry project). This has given me new appreciation and interests for other teachers... I was given inspiring ideas, and even though I didn't use them all I hope to be able to in the future.

Roberta wondered about the benefits of being with other first grade teachers: "I feel like my inquiry group is supportive but I wonder how much more I might be getting if I were working with other first grade teachers".

To engage in an activity directed by another colleague allowed Rick to get important insights for his own inquiry project:

It wasn't until Laura's commentary that I changed the focus of my original question. Laura asked each of us to get a partner for a competition. Competition! the word alone struck fear in the hearts of many of my adult peers... Their anxiety surfaced all over... And I see it so present in adults. And it's obviously present with kids... Now I'm more concerned about how kids are feeling.

Laura in turn highly valued her peers for their experience on and articulation of the task or problem at hand. Articulation was a big concern for her: "The most important learning experience I pulled from that group was realizing that asking questions and learning from members of my group was an asset to my learning."

Different perspectives: Although most of the teachers' commentaries reflect their willingness to accept and take advantage of peers' suggestions and experiences, very few refer directly to the issue of multiple perspectives in terms of contrasting points of view regarding data interpretation, teaching and individual <--> others relations. Five participants pointed out the issue of different perspectives. They seem to have a common salient characteristic: their high level of articulation

and understanding of their own developmental process while doing their inquiry project. As Marilyn reflects on her classroom research, she recognizes that she was having problems in describing her project: "I was very murky when describing my own project. The feedback and questions the members of my group gave were invaluable for helping me interpret my data and look at them from a different perspective". Meanwhile, Lynn was very committed to finding evidence on how independent (individual) work should precede interdependent (group) work. She looked at others' perspectives about her project as things that she should have found out herself prior to their giving them to her: "Linda helped me to hear what I do not know. How can one know what one does not know without an outside point of view?"

Challenge: To be challenged, pushed or questioned beyond the comfort zone by their peers and/or the staff was appreciated and valued by most of the teacher-participants in the enhancement program. Conflict, in terms of disagreement on a given issue or situation, was very rare. Only two participants indicated having some kind of conflict with their respective peer support teachers, of which one was successfully overcome and the other simply ignored. One case of mutual challenge occurred between Lynn and Marilyn. Lynn, in insisting on having students do an independent project, refers to Marilyn's question: "Are students independent from each other or independent from me? Why hadn't I asked myself this question before?" Meanwhile, Marilyn points out Lynn's comment concerning an interview Marilyn did with her students: "Lynn noticed that perhaps my questioning was actually leading the kids to what I wanted". Janet recognizes the challenge and benefit in the way her SIG questioned her methods: "My inquiry group questioned my methods, which made me become more verbal about my beliefs in what I was doing. They were anxious to know what new discoveries I'd made each week, which encouraged me to continue to try new methods with my literacy program". Janet, after attending a course on conflict management, found out that conflict was not always negative. "I now feel that conflict isn't so much a negative thing, it can be positive and we can grow from that".

By and large, this group of teachers avoided discussing controversial issues or expressing disagreement on a given matter. The staff, aware of the importance of opposition as a motor for a real movement of ideas, tried once to bring up this theme for discussion in the whole group. Unfortunately, this conversation was not tape recorded; based on my notes I am only able to comment on it and paraphrase a few statements made by the participants. Paul, a member of the staff, introduced the topic by commenting how the staff value opposition as a motor for growing; and how superficial agreement conduces to a pseudocommunity. Several participants accepted the challenge and went ahead to express directly their disagreement with Paul or among themselves with regard to the topic they were discussing -- the same issue of conflict -- in very 'rational terms'. Others referred to the lack of opportunities to express opposition. However, for many others the situation became very uncomfortable and their level of anxiety increased in a very visible way. Laura refers to it: "Maryliz and I looked at each other and each time our anxiety was higher". Donna was so uncomfortable during the discussion that she finally exploded:

Why are we continuing doing this... I don't feel comfortable... I'm not coming here to fight... I don't want to be pushed down every time... I want a win situation... If I need fights I can have them in my school.

This first attempt to push opposition intentionally as a motor of movement of ideas was not completely successful. The staff did not attempt it again despite our awareness (Paul and I) that the process should be continued because in this way teachers can develop abilities to handle socio-cognitive conflict and take advantage by learning from it.

Collaboration Beyond the Enhancement Program

Although 'team teaching' and 'cooperative learning' have been increasingly used lately, most of these teachers do not refer to these strategies as collaboration. Only five out of 24 talked, with some degree of enthusiasm, about previous experiences of collaboration in terms of mentorship by one of their colleagues. On the basis of their 'positive' experience of collaboration in the inquiry group and in the program in general, teachers began to see possibilities and to act collaboratively in many situations and at various levels, such as with their team teachers and their school colleagues, in the fight against isolation. Debby commits herself in these terms:

As teachers we are so isolated. This won't continue for me. I will find other teachers to collaborate with. From the interview [for admission] to the final presentation we learned so much from each other because of our diverse personalities, backgrounds and philosophies.

These teachers also began to connect and translate their own experiences on collaboration into their classrooms. Laura expresses this connection neatly: "As I experienced (in the inquiry group) and became more knowledgeable about cooperative group work, I wondered if cooperative groups would work in a physical education class". Meanwhile, other teachers looked at collaboration between themselves and their students. Patricia, Marilyn, Brandi, Lorraine, Laura and Sally refer to their students as co-investigators in their classroom inquiry. Sally worked with her students in a science project and looked at collaboration: "There was more collaboration in my classroom because of the project... They [the students] are willing to share what they learned with me... I want them to take as much ownership of the project as possible".

By and large, these teachers' commentaries about peer collaboration project a feeling of success and a willingness to continue collaborating among themselves and with other colleagues in their schools, as well as to devise ways for promoting authentic collaboration and cooperation among the students in their classrooms.

Discussion

The inquiry project was, for all participants, their first experience in doing systematic and intentional educational research. The small-group or one-to-one interaction with peers on a regular basis in the inquiry group while they were doing their classroom inquiry was enthusiastically celebrated by the teachers in their conversations, reports, reflections, presentations, and evaluations of the program. Five different celebration discourses were identified: 1) affective support, 2) guidance/help, 3) sharing/learning, 4) different perspectives and 5) challenge. Their positive comments were so vivid and enthusiastic that there remained no place for mentioning or looking at negative aspects. The effect of novelty and the enthusiasm of others preempted any attempt to "spoil the party".

At any rate, thanks to the qualitative, inductive and process-oriented approach of the present study we were able to discover different dimensions of peers' influences, as perceived by participants, in addition to the cognitive dimension: affective support, reciprocity, broadening of views, challenge, articulation, learning from and learning with other peers, to mention the most salient.

The very fact that these teachers acknowledge and value guidance, help, intellectual challenges and learning from colleagues represents a quantum leap from the ingrained do-it-yourself ideology or what I have called the "cognitive individualism" (Torres, 1996) inherited from their own education and socialization. From this individualist ideology, the self, or the individual, is 'self-contained' and 'self-sufficient'. In this respect Sampson (1993), inspired by Bakhtin's dialogism, criticizes the "self-contained ideal", as a kind of "celebration of the self". To do so

We need to think of the self as a kind of bounded container, separate from other similarly bounded containers and in possesion or ownership of its own capacities and abilities. In order to ensure this container's integrity, we need to think of whatever lies outside its boundaries as potentially threatening and dangerous, and whatever lies inside as sufficiently worthy to protect. These beliefs establish a possessive individualist view of the person and the assumption of a negative relation between self and other, both or which understandings permeate much of Western civilization (p.31).

On the contrary, these teachers were "celebrating the other". For most of them this first experience of collaboration provided them with the necessary evidence of its benefits while doing highly demanding intellectual work. For others, this experience ratified their belief in peer collaboration, and gave them the opportunity to reflect on and articulate such experience. It is important to recognize here that the success of this collaborative experience is not isolated from the increasing interest in looking at education in general and teacher education in particular from a socio-cultural perspective. This represents a turn to Vygotsky and other great thinkers whose ideas are compatible and/or complementary, such as Mihael M. Bakhtin, another Russian, and Paulo Freire, a Brazilian educator.

Whereas challenge is acknowledged and valued as a stimulating and positive demand within a collaborative atmosphere, conflict or open disagreement on a given matter among peer-teachers is shadowed with negative meaning and therefore avoided, rejected or faced with anxiety or uneasiness. Thus, some of the participants were obviously incapable of handling socio-cognitive conflict caused by disagreement, and of growing and learning from it. The difficulty of accepting a diversity of perspectives, opinions and thinking styles became quite apparent. It seems these teachers have perceived no convincing reason to do so and consequently they have had no chance to develop abilities to use disagreement and argumentation successfully and to grow from them. Florio-Ruane and deTar (1995) also found it difficult to handle conflictive talk among teacher candidates, either for them or for the moderator of their conversations. Once the moderator reframed the conversation they moved beyond the conflictive talk and engaged in collaborative conversation. Although they still challenge participants' perspectives, it is now within a "believing context": "There can be substantial challenging of the viewpoints aired by the speakers and the published authors, but challenge occurs in a 'believing' context and as part of a search for common ground in the pursuit of answers to difficult questions" (p.35). These authors

also consider it important and necessary to scrutinize those issues of ideology that seem potentially explosive, but they wonder how to "integrate argument with conversations" and to do so "safely and critically". Johnson and Johnson (1979), within a Piagetian framework, also regret teachers' and students' lack of skills to handle controversy productively for increasing cognitive conflict and "epistemic curiosity".

Although with a different purpose, there is a common observation among Florio-Ruane & deTar, Johnson and Johnson, and some teachers in the present study: teachers do not show an ability to handle open disagreement and controversy. Although conflict is more salient in Piaget's theory and collaboration more salient in Vygotsky's theory, both theories help us to the role of socio-cognitive conflict in the development of teachers. However, Vygotsky's "law of cultural development" - from sociocultural to intrapsychological function -- becomes a key element in understanding why teachers tend to celebrate collaboration and avoid conflict.

References

1. Anderson, G.L., Herr, K. and Nihlen, A.S. (1994). *Studying your own school: An educator's guide to qualitative practitioner research*. Thousand Oaks, CA: Corwin Press.
2. Bidell, Thomas (1988). Vygotsky, Piaget and the dialectic of development. *Human Development*, 31, 329-348.
3. Cochran-Smith, M. and Lytle, S. L. (1993). *Inside/outside: Teacher research and knowledge.* New York, NY: Teachers College Press.
4. Doise, W. and Mugny, G. (1984). *The social development of the intellect*. Translated by A. S. James-Emler and N. Emler. New York, NY: Pergamon Press.
5. Florio-Ruane, S. and deTar, J. (1995). Conflict and consensus in teacher candidates' discussion of ethnic autobiography. *English Education*, 27, 11-38.
6. Forman, E. A. and Cazden, C. B. (1985). Exploring Vygotskian perspectives in education: The cognitive value of peer interaction. In J. V. Wertsch (Ed.), *Culture, cognition and communication: Vygotskian perspectives*. New York, NY: Cambridge University Press.
7. Johnson, D. W. and Johnson, R. T. (1979). Conflict in the classroom: Controversy and learning. *Review of Educational Research*, 49, 51-70.
8. John-Steiner, V. (1996). Women's collaborative interactions. In D.I. Slobin, J. Gerhardt, A. Kyratzis and J. Gao (Eds.) *Social interaction, social context and language. Essays in honor of Susan Ervin-Tripp*. Hillsdale, NJ: Lawrence Erlbaum Associates.
9. John-Steiner, V., Meehan, T. and Kennedy, C. (1996). Collaborators' joint reconstruction of shared experiences. Paper presented at the American Association for Applied Linguistics 1996 Conference, Chicago, IL, March 23-26.
10. Kruger, A.C. (1993). Peer collaboration: Conflict, cooperation, or both? *Social Development,* 2, 167-180.
11. Lee, B. (1987), Recontextualizing Vygotsky. In M. Hickman (Ed.), *Social and functional approaches to language and thought*. New York, NY: Academic Press.
12. Moll, L. C. and Whitmore, K. F. (1993). Vygotsky in classroom practice: Moving from individual transmission to social transaction. In E. A. Forman, N. Minick and C. A. Stone (Eds.), *Contexts for learning: Sociocultural dynamics in children's* development. New York, NY: Oxford University Press.
13. Piaget, Jean (1995/1965). *Sociological studies*. Edited by Leslie Smith. Translated by Terrance Brown et al. New York, NY: Routledge.

14. Sampson, Edward E. (1993). *Celebrating the other: A dialogical account of human nature*. Boulder, CO: Westview Press.
15. Torres, Myriam N. (1996). Cognitive individualism: An impediment to teachers' collaborative intellectual work. Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY, April 8-12.
16. Tudge, J. and Rogoff, B. (1989). Peer influences on cognitive development: Piagetian and Vygotskian perspectives. In M.H. Bornstein and J.S. Bruner (Eds), *Interaction in human development.* Hillsdale, NJ: Lawrence Erlbaum Associates.
17. Tudge, J. and Winterhoff, P. (1993). Vygotsky, Piaget, and Bandura: Perspectives on the relations between the social world and cognitive development. *Human development*, 36, 61-81.
18. Vygotsky, L. S. (1978). *Mind in society: The development of the higher psychological processes*. Cambridge: MA: Harvard University Press.
19. Vygotsky, L. S. (1989). Historia del desarrollo de las funciones psíquicas superiores [History of the development of the higher psychological processes]. In A. Puzirei and L. Guippenreiter (Eds.), *El proceso de formación de la psicología Marxista: L. Vigotski, A. Leontiev, A. Luria* [The process of formation of the Marxist psychology: L. Vigotsky, A. Leontiev, A. Luria] (M. Shuare, Trans.). Moscow, Russia: Editorial Progreso.
20. Wells, G. et al. (1994). *Changing schools from within: Creating communities of inquiry*. Toronto, Canada: OISE Press; Portsmouth, NH: Heinemann.
21. [1] Invited paper, International Conference "The Contemporary Practices of Psychology and Heritage from Piaget and Vygotsky" in Riga, Latvia, October 26-27, 1996.