Building a new role for Educational Psychologists through Guided Participation of Students of Psychology into communities of work learning.

Erausquin C. y García Labandal L.

Building a new role for Educational Psychologists through Guided Participation of Psychology Students into "Communities of Work Learning"

Authors: Professor Magister Cristina Erausquin, Magister Livia García Labandal

Buenos Aires University – Argentina

AIMS:

- To analyse mental models and activity systems throughout educative experience that "cross boundaries" between "academic world" of University and "actual world" of work. "Psychologists in modeling" learn to work with different Professionals and Social Actors in Educational Contexts through Guided Participation in Societal Practice.

- To analyze the heterogeneous process of construction of the Professional Educational Psychologist Competencies through "Communities of Practice" in specific settings, comparing them with the building of competencies involved in other different Areas of Psychologists Activity: Clinic, Social, Justice, Labour and Research.

- To identify strengths and critical knots in Cognitive Change of Mental Models (MM) at *Professional Undergraduate Apprenticeship in Educational Psychology*.

Three experiences of **Undergraduate Apprenticeship** narrated by different groups of Students of Psychology at Educational Contexts were analysed:

- one of *Applied Psychology in Education*, in institutions with Special Educational Needs schooling;

- another of *Research in Education*, for exploring the complex meaning of "integration activities" in Mainstream Inclusive Schools and the use of TICs in Special Educational Needs schooling;

- last of *Teaching Psychology Practice*, for becoming Psychology Teachers and Psychology Professors in Secondary School or University Courses.

CONCEPTUAL FRAMEWORK:

- "Contextualist shift" in psycho-educational agents (P. Pintrich),

- "Mental models" and Cognitive Change in Educational Contexts (M.J. Rodrigo),

- "Communities of Practice and Learners" (B. Rogoff, J. Lave & E. Wenger);

- "Socio-Cultural-Historic Activity Theory" and "Expansive Learning"(Y. Engestrom);

- "Reflection into, from and on practice, reflection of reflection on practice" **(**D.Schon);

- "Construction of competencies in Education" (Ph. Perrenoud);

- Vigotskian concept of "Zone of Proximal Development", to understand process of "professionals modeling" as well as process of developing minds and experience through schooling with " new units of analysis" (L. Vygotsky, 1934).

In the approach to "human practice in interaction" the socio-historic- cultural theory contributes with a dialectical perspective . The frame is based in Lev Vygotsky thought. In line to James Wertsch "action mediated by artifacts or mediation tools" (1) , mainly Yrjo Engestrom (2) concept of **"system of activity"** has inspirited our construction of a **"unit of analysis"** that can reflect the complexity and
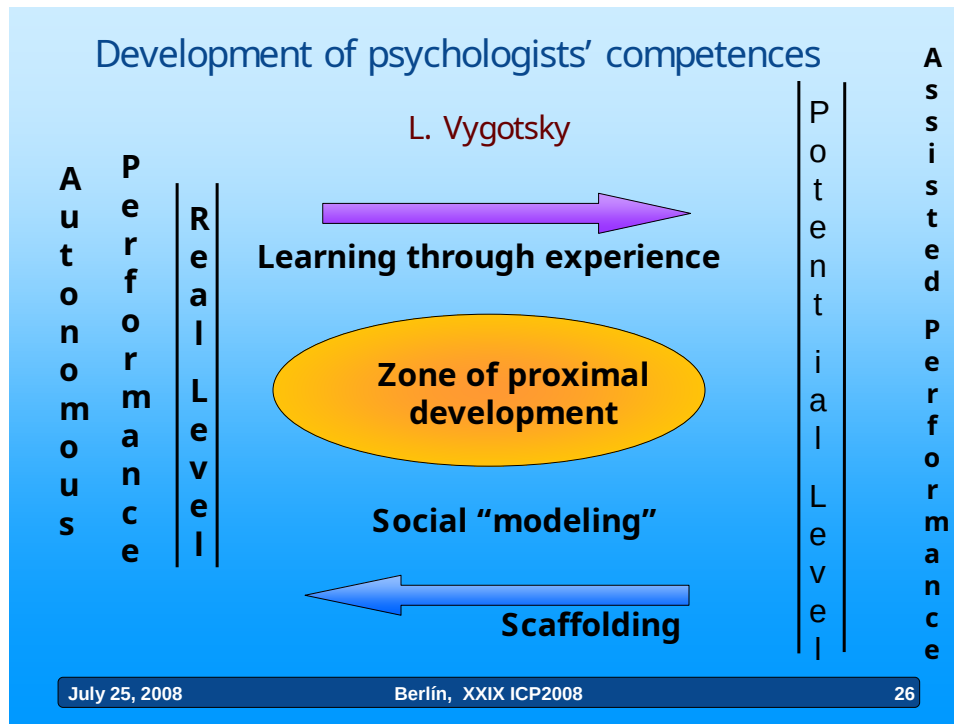
interdependence of dimensions in the issue of Psychologists Training. Yrjo Engestrom (2001) has studied the relation between microcontext, macrocontext and human actors in diverse settings of "Work in Change" and emphasized the role of **tensions and contradictions** in the possibility of changing the work by changing the context and changing the actors, through a process of "**internalization and externalization"**, plus the confrontation of models from a diversity of activity systems, the negotiation and translation of meanings, purposes, attitudes that can respect the differences by including them in new "task unities". These approaches implicate a change on modern dominant epistemology, that has built the "split conception" between body and mind, emotion and knowledge, society and individual (Baquero, 2005) (3).

We focus in "**cognitive change**", as they have been studied by María José Rodrigo (4) as development in educational settings. To distinguish from a more stable representation such as "schemas", Rodrigo used in 90s the concept of "mental model", created by Johnson Laird in 80s as a representation of the shared activity in the context or social stage. **Mental models** are *"psychological constructions, that are dynamic and temporal representations, based on a specific part of our beliefs and knowledge about the world, that are activated by the content of the task or the situation, and that depend on the subjective intention of the person, related to the event that he/she has to cope with"*(Rodrigo:1993).

To formulate, analyze and solve a problem that requests professional intervention of psychologist, undergraduate students and graduate Psychologists build a discursive configuration that supposes a mental model (MM). In former presentation, we pointed that the **"unit of analysis"** – "the very small unit in which you can divide a problem of study without loosing its essential nature" (Vygotsy, 1998) (5) – is in our Research *"the mental models that students of psychology build for the reflective analysis of problems situated in contexts, which need a professional intervention strategy from the psychologists in different fields of activity"* (Erausquin, Basualdo et al.2006) (6) . Psychologists in process of training display a **"participative appropriation"** of tools, knowledge and skills (Rogoff 1997) (7), building general and specific "competencies" for professional activities in different **"communities of practice"** (Lave and Wenger, 1991) (8).

A **competence** is something you know how to do, it´s a skill, but more than that, it is a strategic ability, necessary to face complex situations. It's not a procedure, a rule, a recipe, although it may include them, if necessary. *"A competence is a capacity of effective action toward a family of situations, that people can construct because they have the necessary knowledge and the ability to mobilize that resource in an appropriate way and in an opportune time, to identify and solve the problems"* (Ph. Perrenoud, 2004)(9).

It is remarkable a **"contextualist shift**" in the current Educational Psychologists conceptions of "learning" (Pintrich, 1994) (10), no more only a mental and individual event, but a complex activity, involving mind an body, emotion and cognition, interpersonal exchange.
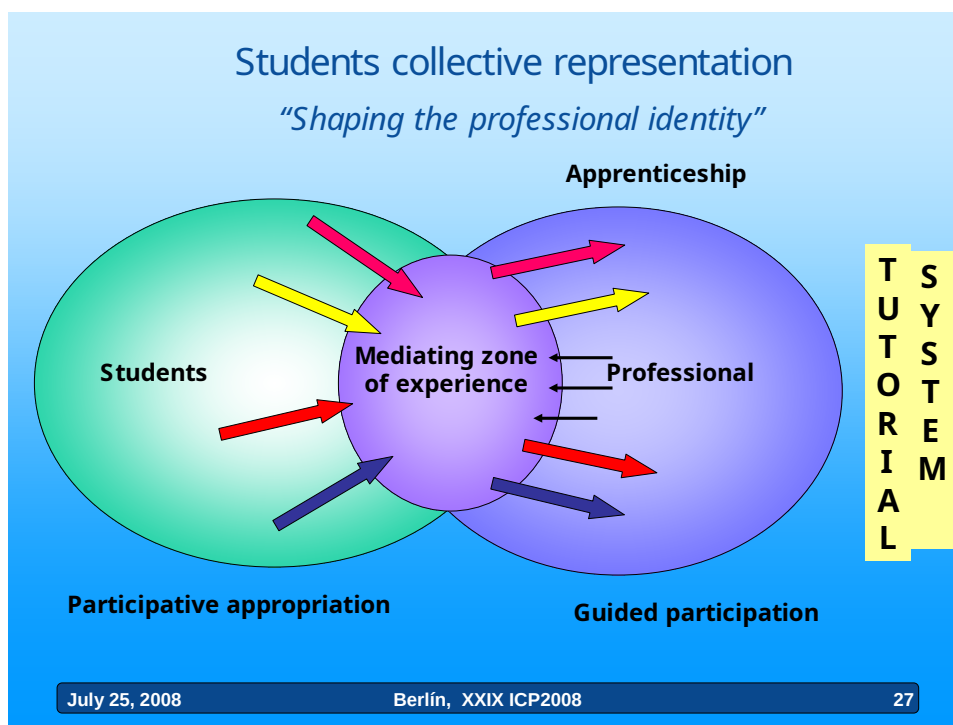
Development of psychologists' competences

L. Vygotsky

Autonomous Performance Real Level

Learning through experience

Zone of proximal development

Social "modeling"

Scaffolding

Potential Level

Assisted Performance

RESEARCH PROJECT, QUESTIONS AND PREVIOUS WORK

- *General purpose* of Research Project is to study mental models (MM) of "Students becoming Psychologists" at University for analyzing and solving problems situated in contexts of Professional Psychologists Practice, Research in Psychology and Teaching Psychology Practice. These were the former questions:

- Are Psychology theories "real" tools that Psychologists actually "use" to understand multidimensional objects of study in their practice?

- Are conventional "pedagogical devices" at University an adequate way to develop "Psychologists in modeling" appropriation of a "box of tools" (Foucault) for developing professional competence?

- How much contributes the meaningful learning of Psychology to analyze and solve relevant human problems in different stages?

- What kind of devices could increase the skill to transfer knowledge to new domains of problems?

In previous works tools for data collection and categories were used to analyze Mental Models of:

- Psychologists in modeling at Undergraduate Apprenticeship.
- Recently Graduate Psychologists, Social Assistance Professionals.
- A Comparative Study of School Psychologists and School Teachers in the same stage.
- Tutors and Mentors of Psychologists Practice in Undergraduate Apprenticeship.
- Psychology Teachers in modelling at Undergraduate Apprenticeship.

Law, Companies Administration, English Teaching.

Students collective representation
"Shaping the professional identity"

July 25, 2008   Berlín, XXIX ICP2008   27

METHODOLOGY:

The draft is supported by descriptive ethnography with quantitative and qualitative data analysis . Questionnaires about Situation-Problems from the perspective of Psychologists Intervention in Education were given to two hundred Psychology Students at the beginning and at the end of their Undergraduate Apprenticeship. Narrative writing introduces beliefs and knowledge as a personal experience crossed by culture and history**.** *Narration highlights narrator subject as much as situation in which he/she is embedded***.** The "unit of analysis" (Vygotsky, 1934) defined for understanding information offered by students narrations in this piece of research project is: "Mental models of Psychology Students for professional intervention on problems situated in Educational Contexts of Psychologists Activity". It is composed by **4 Dimensions:**

I)   Situation-problem in educational context of Psychologist Activity,

II) Intervention/Action or Research/Action or Teaching/Action of Psychologists,

III) Tools used in Psychologists Activity,

IV) Results of Psychologists Activity and Attribution of Causes.

A *Multidimensional Matrix of Analysis of Psychologists Professionalisation* (MMAPP) was applied to examine and to analyze shifts that happened between pre-test and post-test in Students Mental Models and difference concerning to contexts and roles approppriation in Students of Undergraduate Courses of Psychology of Undergraduate Apprenticeship at Buenos Aires University, during 2008.

4

RESULTS:

Professional knowledge and professional competence are co- constructed between contexts of work and study. The historic role of Educational Psychologists, related to segregated "special" schooling and IQ assessment, is changing towards a "contextualist shift" in learning conceptions. But changes are different for different roles appropriation and for different mental models dimensions, with strong tension between "clinical models" in Psychologists formation – founded in a unique and universal matrix of development and focusing on individual de-contextualised mind as the place of learning and the source of thinking- and deep needs of new perspectives in inclusive education.

- 1 - **Mental Models in Activity Systems of Undergraduate Apprenticeship** of **Applied Psychology in Education**, in institutions with Special Educational Needs schooling. Strengths in Conceptual Change in Situacion-Problems– comparing with the Global Sample of 150 subjects in Undergraduate Apprenticeship of Clinic, Labour, Justice, Community, Education and Research Activity -: a) the focus of the problem analysis is in a complexity of factors and relations, articulating different dimensions or components meaningfully in the boundary of Clinic and Educational approach; b) display of broader perspectivism in the dis-centering from a unique point of view; c) specificity of Psychology view but articulated with other disciplinary point of views; d) more historicity in the problem construction; e) focus on inter-subjective dynamic and conflicts between people. Critical Knots: a) psychosocial networks beyond the schooling or the subject and linked with them are few; b) ethical dimension of problems are absent. Strenths in conceptual Change in Professional Intervention – the same comparison -: a) decisions and actions are drawn in inter-agency, with co-construction of the problem and the actions; b) multidimensional activity with increasing development of a process of intervention; c) the action in addressed to individual, groups and institutional devices simultaneously; d) the activity includes help people with the problem as well as investigating the problem; e) pertinence of the activity, theoretical analysis and specific competencies, f) strong involving with distance and balance.

- 2 - **Mental Models in Activity Systems of Undergraduate Apprenticeship** of **Research in Education**, for exploring the complex meaning of "integration activities" in Mainstream Inclusive Schools and the use of TICs in Special Educational Needs schooling. Strengths in Conceptual Change in Situacion-Problems– comparing with the Global Sample of 150 subjects in Undergraduate Apprenticeship of Clinic, Labour, Justice, Community, Education and Research Activity -: a) stronger development of hypothesis for explaining the problems in a context of investigation, with a diversity of combinations of factors inter-related; b) articulation and balance in a conceptual hierarchy of diversity of historic lines of antecedents concerning to the problem and also concerning to the activity system facing and going through the problem analysis and problem solving; c) analysis of outcomes and attributions concerning to the research and its development. In the matter of intervention activity in research field, a) strategic thinking in time organizing and network of outcomes and aims with permanent analysis of theory-method consistence. Critical Knots: a) weak interdisciplinary articulation in the joint construction of problems; b) psycho-social networks in the weft of the problem analysis, and c) ethical dilemmas concerning problems.

- 3 - **Mental Models in Activity Systems of Undergraduate Apprenticeship** of Teaching Psychology Practice, for becoming Psychology Teachers and Psychology Professors in Secondary School or University Courses. Strengths in Conceptual Change in Situacion-Problems– comparing with the Global Sample of 150 subjects in Undergraduate Apprenticeship of Clinic, Labour, Justice, Community, Education and Research Activity - a) understanding and appropriation of the Teacher Role in schooling process and its difference with Educational Psychologist role, mainly meeting with Teaching Task and its relationship with Students Learning; b) focusing the core of teaching-and-learning problems in the middle of inter-subjective and conflictive relationships in young people groups at schools; c) complexity, multidimension and perspectivism in problem analysis. Critical Knots: a) Specificty of Psychology Teaching, beyond the difference between Psychologists and Teachers; b) historicity of the problems, investigation, activity system reconstruction with units of analysis crossed by time and by research. In the matter of intervention, the teacher seems to be alone, lonely decision only regarding the students, rather than other agents or social actors – other teachers, parents, managers, school or health devices, including the Psychologists -.

CONCLUSIONS:

Strengths: The increase of perspectivism and dis-centering from a unique perspective of the three samples show the enhancement of the competence for problem analysis for problems solving of students of Psychology throughout their Undergraduate Apprenticeship situated in context of professional intervention. This is strongly correlated with an increase of complexity in analysis of problems and articulation between actors, factors and dimensions, including intersubjective and psychosocial networks (Erausquin et alt.2007).

Different profiles are developed in the different Areas of Psychologists Activity and in the different activity systems of Undergraduate Apprenticeship in which is situated the process of learning how to become a Psychologist prepared for working in Education. *Heterogeneous shifts* take place in the units of analysis of the problem: where the problem is situated and which is its extent. The enhancement is not homogeneous neither in the different Areas of Psychologists Practice nor in the different settings and roles of Educational Psychology Activities. *Heterogeneous shifts* also take place in the recognition that the agency of the intervention is the joint activity displayed by Psychologists and other professionals. This enhancement is not homogeneous in the different settings and roles. Social and institutional *systems of activity* that order and structure the professional actions are relevant for determining that diversity. We learn to work working, although we don´t know at the beginning how to do it (Vygotsky, 1924). Who learn have a chance to build how to do something with others. While they find out how their role can be, they choose one from many ways, likely different to professors, teachers, adults or tutors´one, including one that there isn´t yet there, in the previous environment, that they have to learn while they are constructing it (Engestrom, 1991)

- **REFERENCES**
- Vigotsky, Lev (1934*): "Development of the higher mental functions"*..Moscu:Progress Publishers. Crítica. Grijalbo ,México 1988

- Wertsch, J. (1999) *Mind in action.*. Buenos Aires. AIQUE.1999.
- Engestrom Y.(1988) "Seeking the zone of proximal development in physician's work activity", in *Hildebrand et al. eds.* Proceedings of the *1ˢᵗ. International Congress on Activity Theory*. Berlin.
- Castorina A. and Baquero R. (2005) *Dialectic and development Psychology*. Amorrortu Ediciones. Buenos Aires.
- Rodrigo, M.J. (1994) "Etapas, contextos, dominios y teorías implícitas en el conocimiento escolar". En: Rodrigo, MJ. (ed.): *Contexto y desarrollo social,* Madrid. Síntesis.
- Rodrigo, M.J. y Correa N. (1999) "Teorías implícitas, modelos mentales y cambio educativo", en Pozo I. y Monereo C. (comps.) *El aprendizaje estratégico.* Aula XXI. Santillana. Madrid.
- Vigotsky (1986) *Thought and language.* Cambridge MIT Press. Buenos Aires, 1977.
- Erausquin C, Basualdo M.E. et al.(2004) "The apprenticeship in "communities of practice": a cognitive contribution to model a professional psychologist" *28ᵗʰ International Congress of Psychology (ICP 2004)August 8-13, 2004.*
- Erausquin C. et al.(2000) "To become a psychologist. Construction of Practice Communities as contexts of academic learning". *27ᵗʰ International congress of Psychology,* Stockholm, Sweden, 23-28 July 2000.
- Rogoff Barbara (1997) "Los tres planos de la actividad sociocultural: apropiación participativa, participación guiada y aprendizaje". En Wertsch y otros (eds.) "*La mente sociocultural. Aproximaciones teóricas y aplicadas*".Fundación Infancia y Aprendizaje. Madrid. España. 1997. "Children´s learning in the "zone of proximal development", *New directions for Child Development,* San Francisco, 1984.
- Lave J and Wenger E (1991) *Situated learning,* Cambridge, MA.
- Perrenoud Philippe (1997) *Construire des competences dés l´école.* France.
- Perrenoud Philippe (2001) *Développer la pratique réflexive dans le métier d´enseignant. Professionalisation et raison pédagogique.*
- Pintrich, P. (1994) "Continuities and discontinuities: future directions for research in Educational psychology". *Educational Psychology 29 137-148.*

Mediational Expanded Basic Triangle
(ENGESTROM, 1991)