Linking teachers and researchers: two programs of teacher professional development

María Paz Echeverriarza
UNESCO Montevideo
http://www.unesco.org.uy/educacion
Background

Teacher training

- done at separate teacher training institutes
- not connected with research community
- limited contact with science process
- lab experience often demonstrative

In-service training

- mostly limited to courses directly related to the school curriculum
“Acortando Distancias” (shortening distances)

Partnership
UNESCO + PEDECIBA

Coordination

Research laboratory
Teacher intern - Researcher

One-month research internship

Open call: scholarships for teachers
Volunteer researchers/laboratories
Minor funds for lab expenses
“Acortando Distancias” (shortening distances)

Partnership
UNESCO + PEDECIBA

Coordination

Research laboratory
Teacher intern - Researcher

Final workshop
One-day event for all participants
Teachers give poster presentations
3 plenary lectures by researchers
Results

- Internships gave teachers the opportunity to become a member of a research group for one month.
- This immersion experience made it possible for teachers to reconsider their opinions about and attitudes with regard to science and scientists.
- Many teachers changed their approach to teaching science.
- Most teachers shared their experience and materials with colleagues.
- Links were established between teachers and researchers/research labs (“communities of practice”), beyond the immediate goals of the program:
- Detailed evaluation of the experience (including in-depth interviews of all participants) helped validate the program, now incorporated into national policy (Agencia Nacional de Investigación e Innovación).
“Docentes Aprendiendo en Red”
(teachers learning in networks)

**Partnership**

Ministry of Education of Argentina - UNESCO

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**Researcher, writing specialist**

Group of teachers

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**Virtual platform**

Virtual communication

5 collective meetings

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**Study group**

Study and writing on selected topic

Final written product prepared for fellow teachers
Examples of topics

- Insecticides: the good, the bad, and the ugly of plague control
- Brain and memory
- From gene to protein
- The theory and reality of evolution
- The building of an organism
- Taxonomy: from Linnaeus to cladistics

Note: evaluation of this program is under way.
Principles that guide student learning should also guide professional development of educators. The content of professional learning must come both from research and practice.

People tend to teach the way they are taught, so changes in personal experiences of learning are important for the teaching profession.
Concluding remarks (2)

Part of the effort entails working more intensively on fewer topics to allow quality, not just coverage. “Less really is more.”

Teachers are more willing to enjoy the benefits and rewards of collaboration when it is perceived as pertinent and challenging.