



Representación de la
UNESCO ante el MERCOSUR

Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura

Linking teachers and researchers: two programs of teacher professional development

María Paz Echeverriarza
UNESCO Montevideo

[http:// www.unesco.org.uy/educacion](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



Representación de la
UNESCO ante el MERCOSUR

Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura

“Acortando Distancias” (shortening distances)



Open call: scholarships for teachers
Volunteer researchers/laboratories
Minor funds for lab expenses



Representación de la
UNESCO ante el MERCOSUR

Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura

“Acortando Distancias” (shortening distances)



- 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).

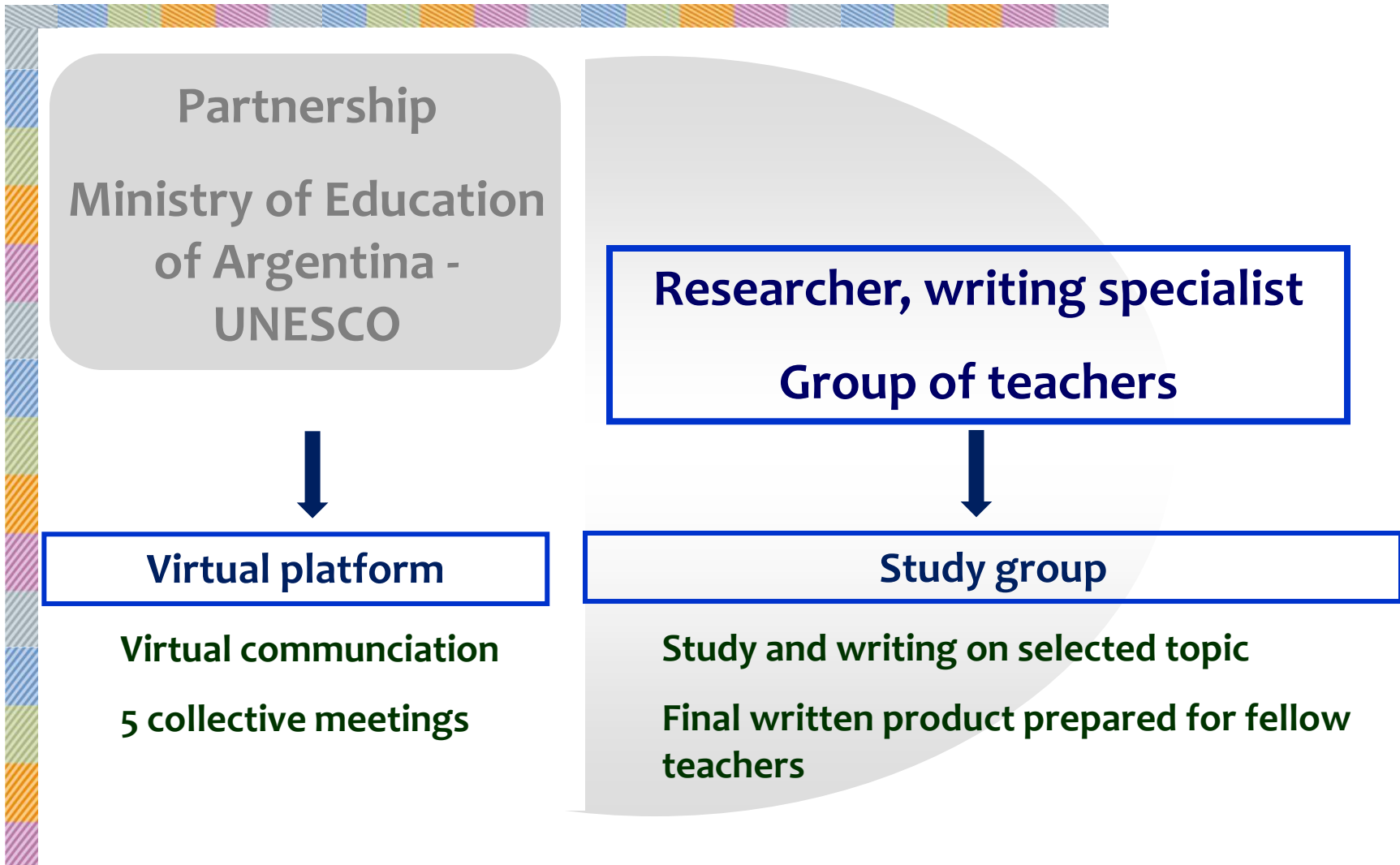


Representación de la
UNESCO ante el MERCOSUR



Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura

“Docentes Aprendiendo en Red” (teachers learning in networks)





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.



Concluding remarks (1)

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.