

PR-MSP Puerto Rico Math & Science Partnership

**Action Research: A Teachers'
Professional Development
Strategy to Meet the Needs of
Diverse Learners**

NATIONAL SCIENCE TEACHERS ASSOCIATION
San Antonio, Texas
April 12, 2013

PR Master ScienceTeacher

It's a supplemental NSF fund given to Puerto Rico Math & Science Partnership (PR-MSP)

The project is known as AIACiMa, an acronym for Alliance for Learning Science and Mathematics.



Canadá

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Panamá

Venezuela

Colombia

Perú

Brasil
Paraguay

Uruguay

Argentina

Reino Unido

Países Bajos

Alemania

Francia

Suiza

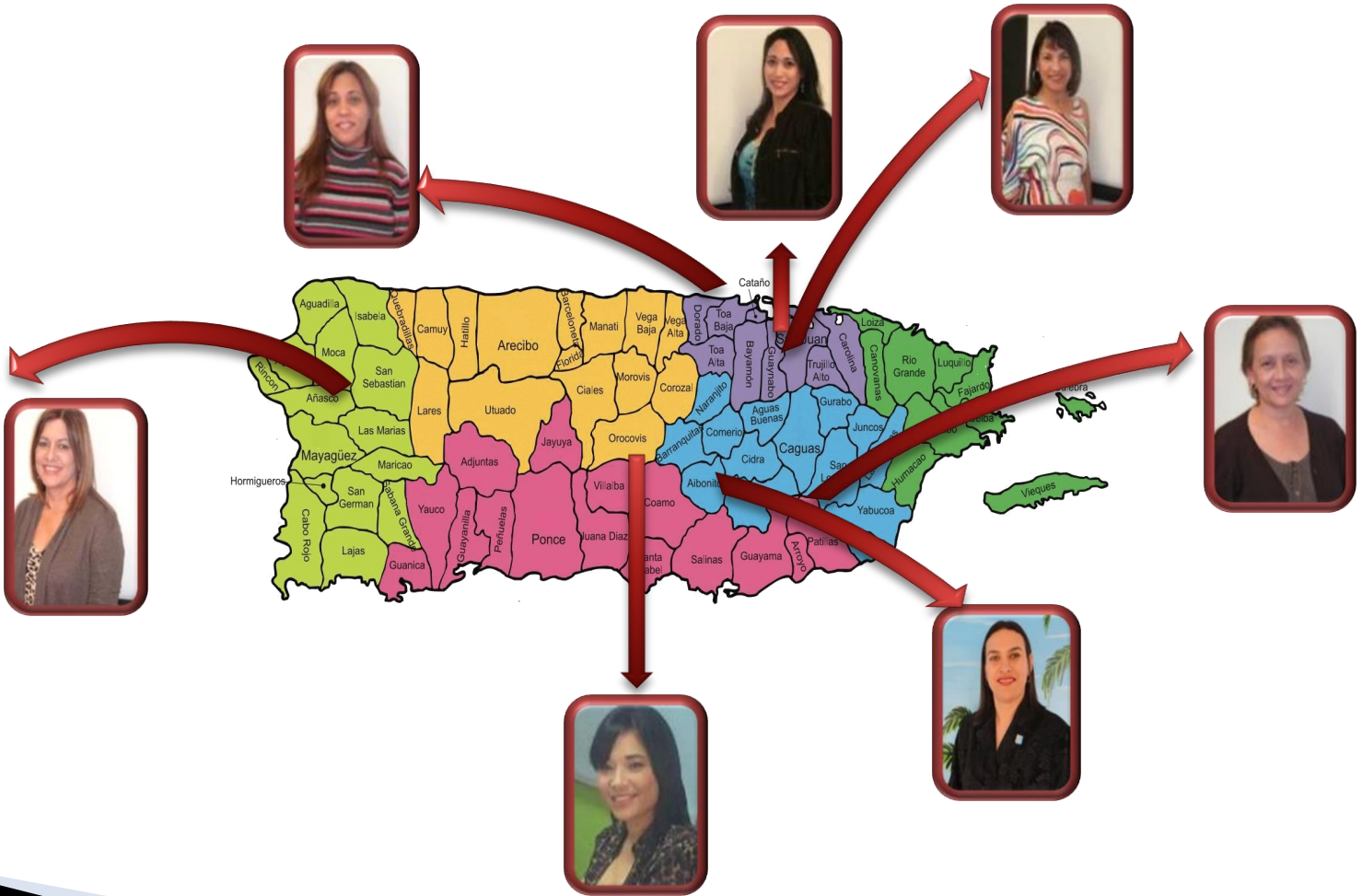
Andorra

Portugal

Angola



OUR FELLOWS



**ACTION RESEARCH
FOCUSED ON
STUDENTS WITH
SPECIAL NEEDS**

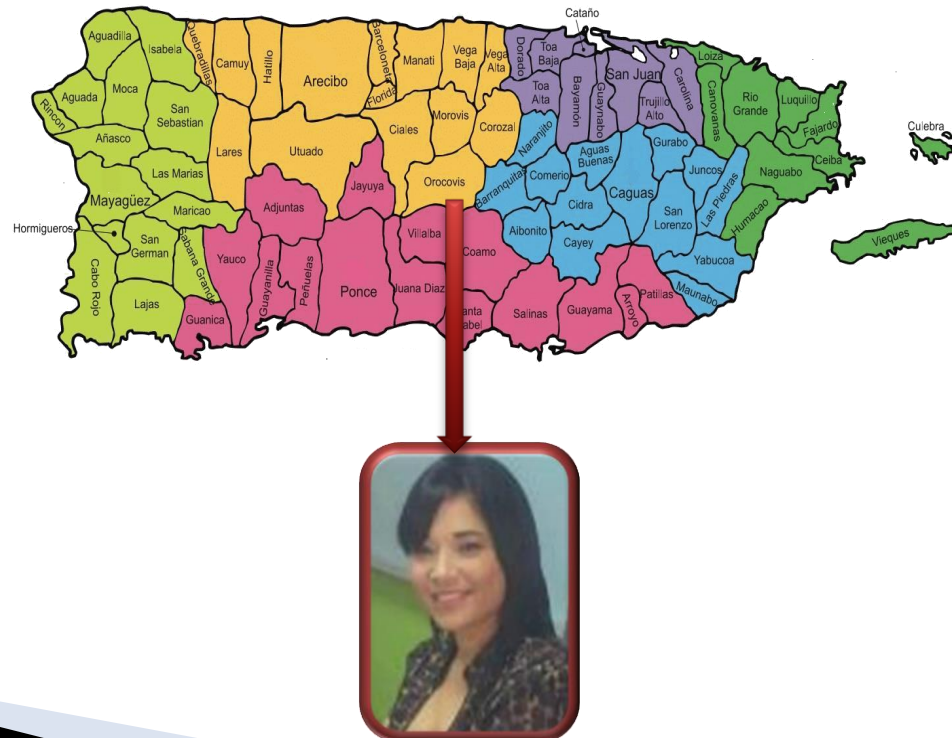
Action research...

- ▶ is a tool that is used to help teachers and other educators uncover strategies to improve teaching practices (Sagor, 2004).
- ▶ is considered a professional development opportunity because, frequently, teachers test a new instructional strategy, assess a new curriculum program, or evaluate an existing pedagogical method.
- ▣ In many research studies, participating in action research has been found to be the impetus for positive change exemplified by teacher improvement, self-reflection, and overall learning that enhances classroom practices (Ferrance, 2000; Johnson & Button, 2000; Ross, Rolheiser, & Hogoboom-Gray, 1999; Sax & Fisher, 2001).



A Guided Scientific Research: An Investigation by Students with Special Needs

Jadira Aponte



Research Question

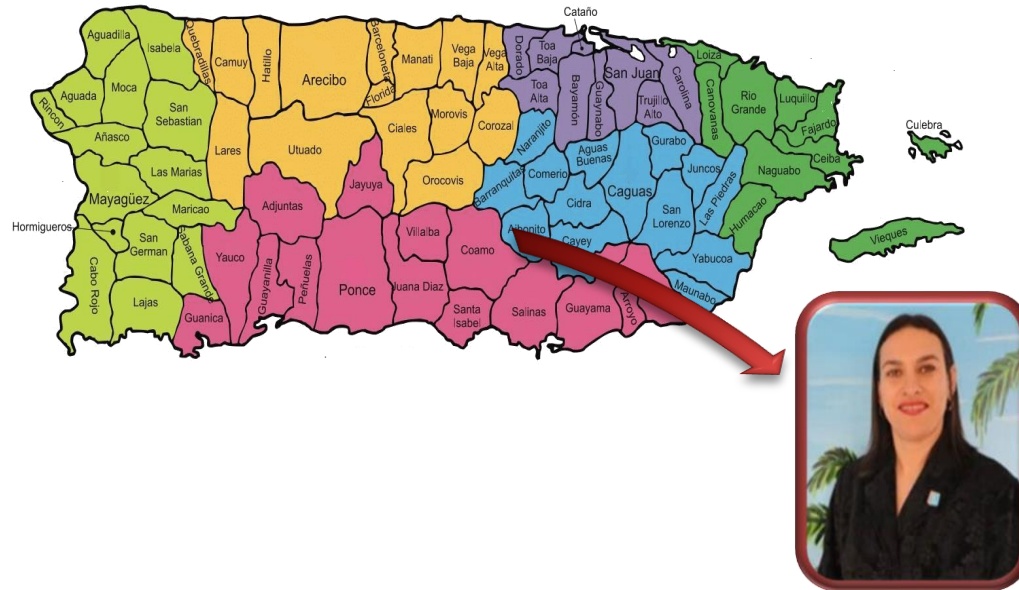
What is the effect of working together (peer coaching) in students with special needs to complete a scientific investigation?





Different teaching methodologies to enhance the learning of photosynthesis of seventh grade students

Lourdes E. Rivera González



Research Question

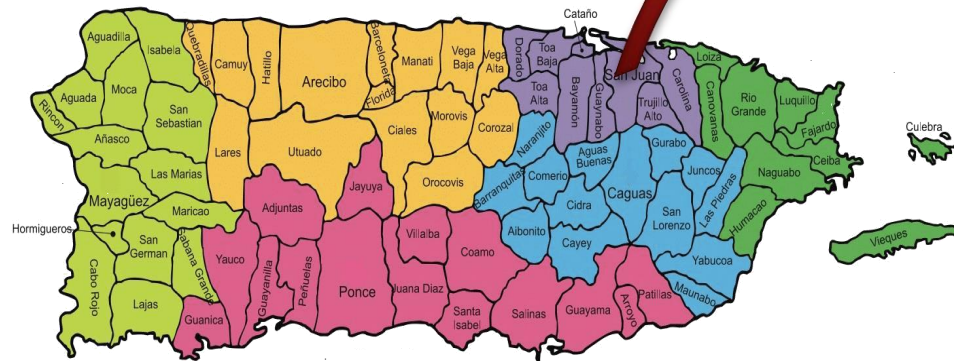
Which assessment tool is more effective to enhance the learning of photosynthesis of seventh grade students?





A Synectic Learning Model as an Effective Strategy in Teaching the Mol Concept to Students with Special Needs

Carmen Ruiz



Research Question

Is the synectic model an effective tool for enhancing conceptual understanding of the mol in students with special needs?

Poema Cinquain:

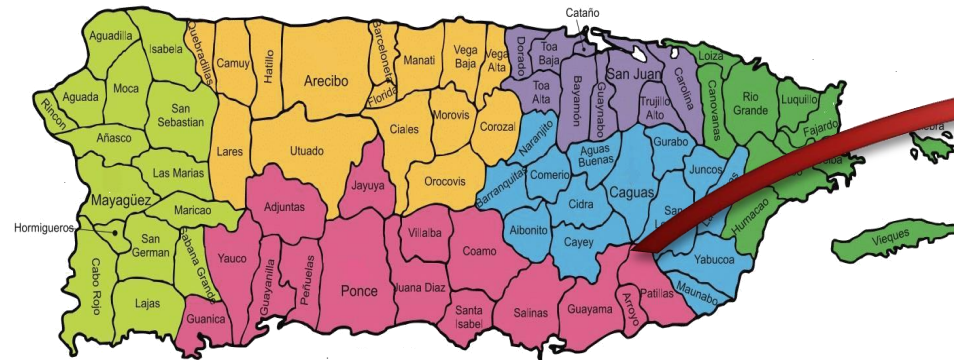
Mol
Unidad, cantidad
nos provee exactitud
magnitud física fundamental
 6.02×10^{23} partículas





Using the technological tool Photo Story 3 for Windows as a motivational resource to improve academic achievement of Students with Special Needs

María L. Ortiz Hernández



Research's question

- ▶ Is the technological tool Photo Story 3 for Windows a good motivational resource to improve academic achievement of Students with Special Needs in the skills of reading and writing science comprehension?





Technological Module Integration to Improve the Academic Achievement of ADD/ADHD Students.

Sandra Beltrán



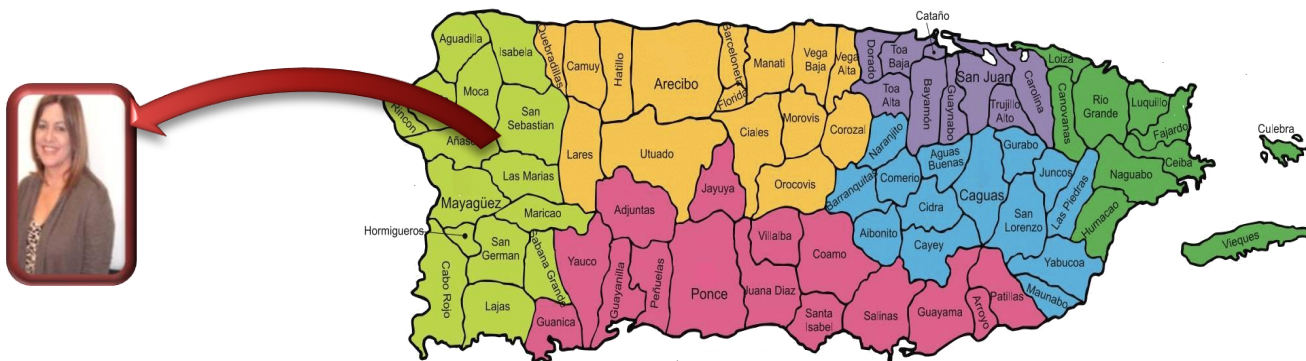
Research question

- Is the integration of technology effective to improve the academic achievement of ADD/ADHD students, in the somatic Cell Cycle unit?



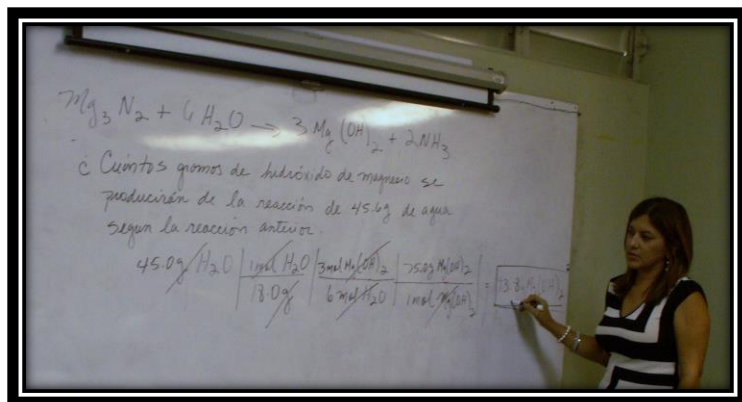
Students with Special Needs' Cognitive Process Solving Stoichiometry Problems

Myrna Hernández



Research Question

Is the structured solving problem approach effective to improve the capacity of students to solve stoichiometry problems?





In situ lab with *Danaus plexippus* lifecycle

Minnette Rodríguez Harrison

