



Puerto Rico Math and Science Partnership (AIACiMa)

Presentation to the PRMSP National Advisory Board
Overview of Year One

Josefina Arce - Principal Investigator
August 20, 2004

Core Partners



- UPR-Río Piedras



- UPR-Mayagüez



- UPR-Cayey



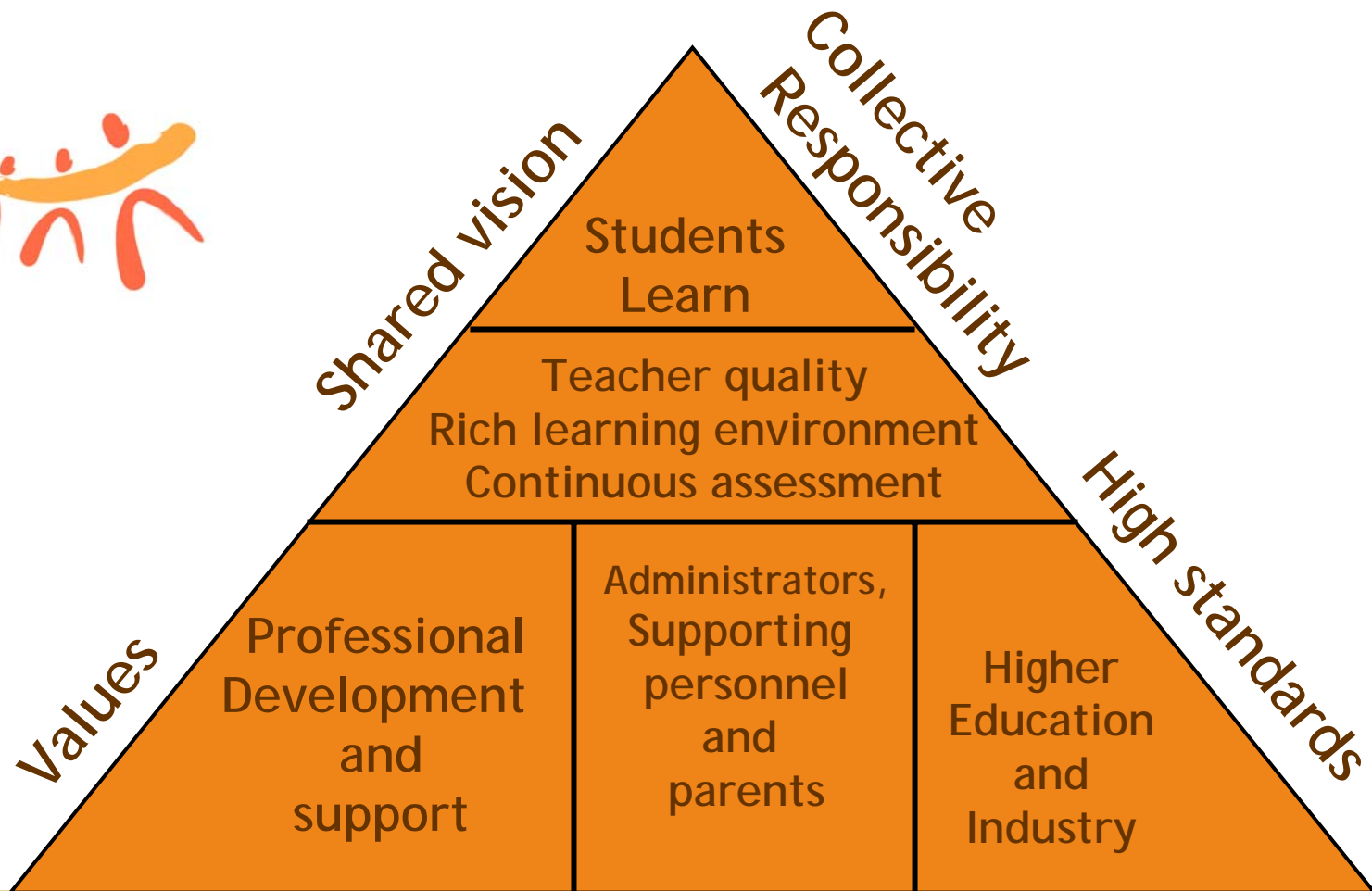
- UPR Humacao



- PR Department of Education



Our vision and values



Students learn M&S
with understanding



↑

Teachers use teaching methods and
assessment that promote learning M&S
with understanding

↑

Continuous professional development for teachers to
foster learning with understanding

↑

School environment that supports teachers to
teach for understanding

PRDE

Educational Region
staff

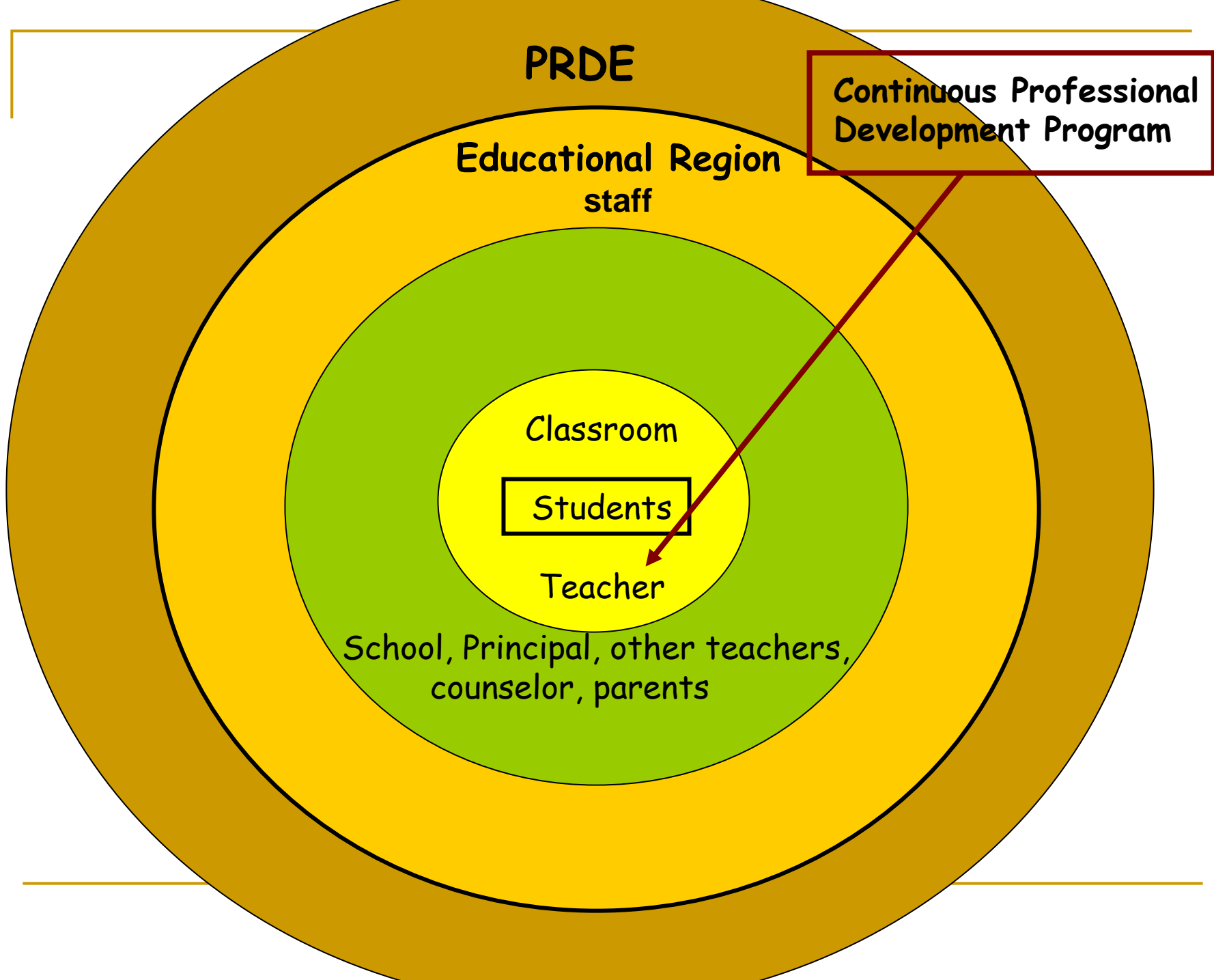
Classroom

Students

Teacher

School, Principal, other teachers,
counselor, parents





PRDE

Continuous Professional
Development Program

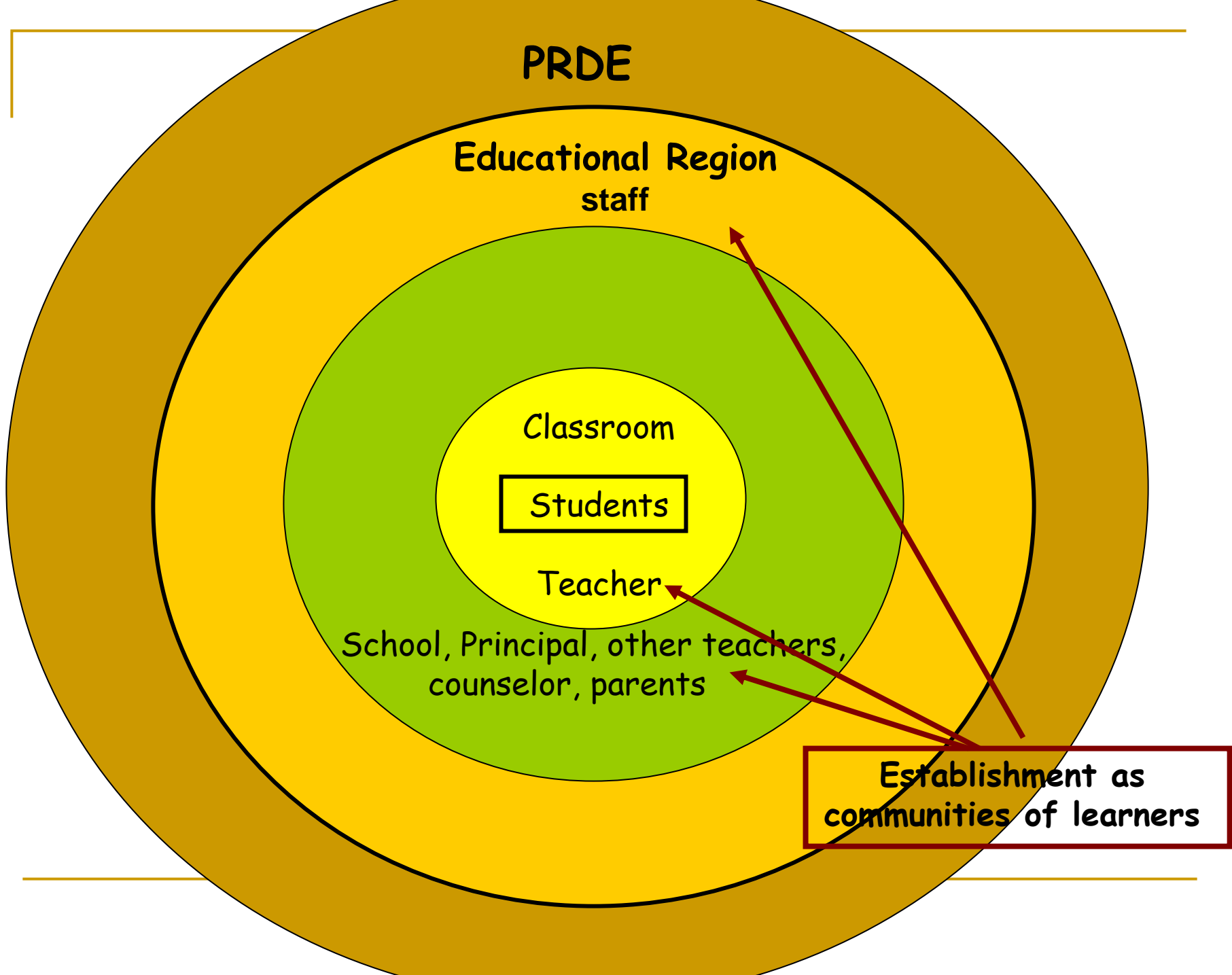
Educational Region
staff

Classroom

Students

Teacher

School, Principal, other teachers,
counselor, parents



PRDE

Educational Region
staff

Classroom

Students

Teacher

School, Principal, other teachers,
counselor, parents

Establishment as
communities of learners

PRDE

Educational Region
staff

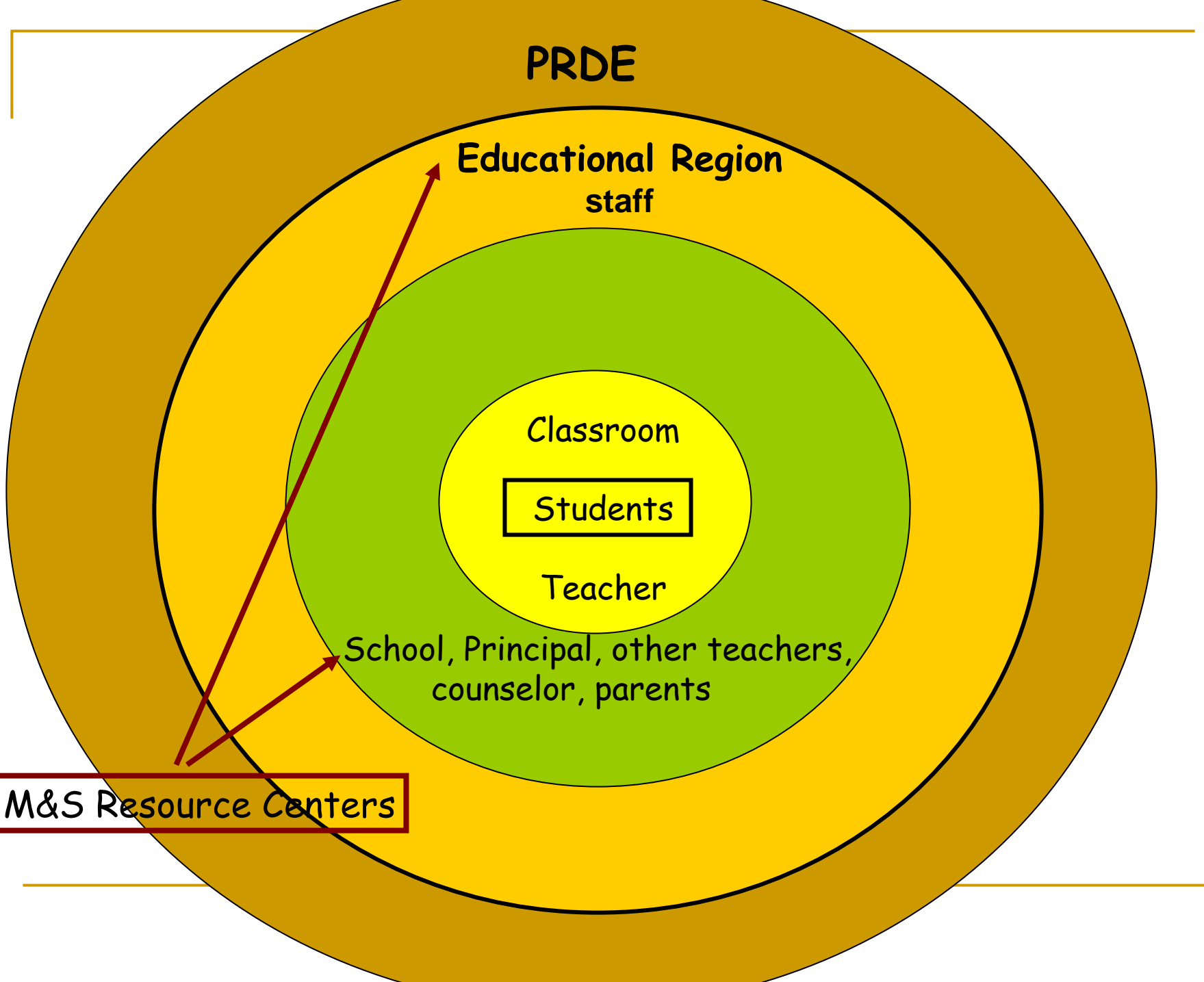
Classroom

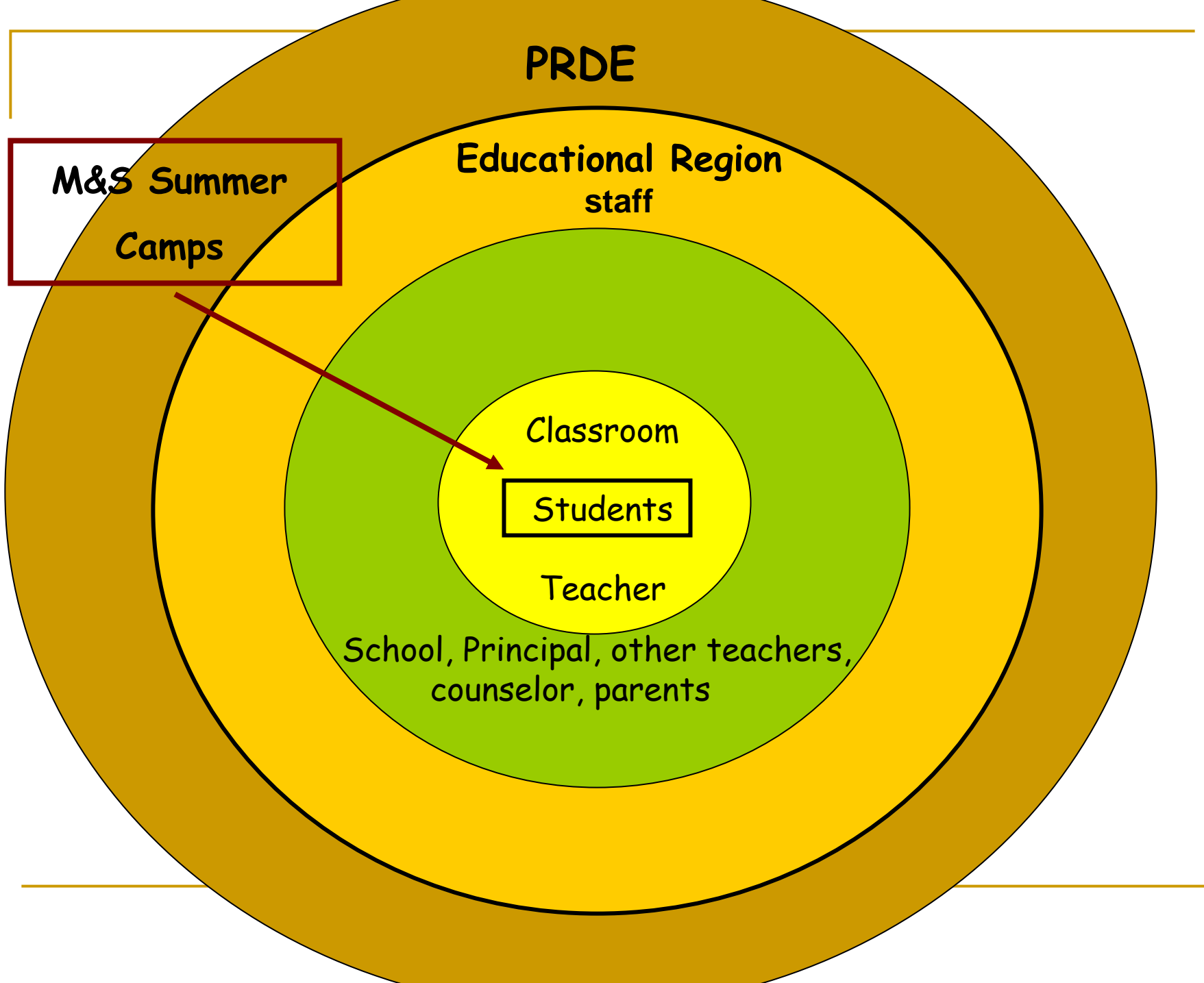
Students

Teacher

School, Principal, other teachers,
counselor, parents

M&S Resource Centers





PRDE

Educational Region
staff

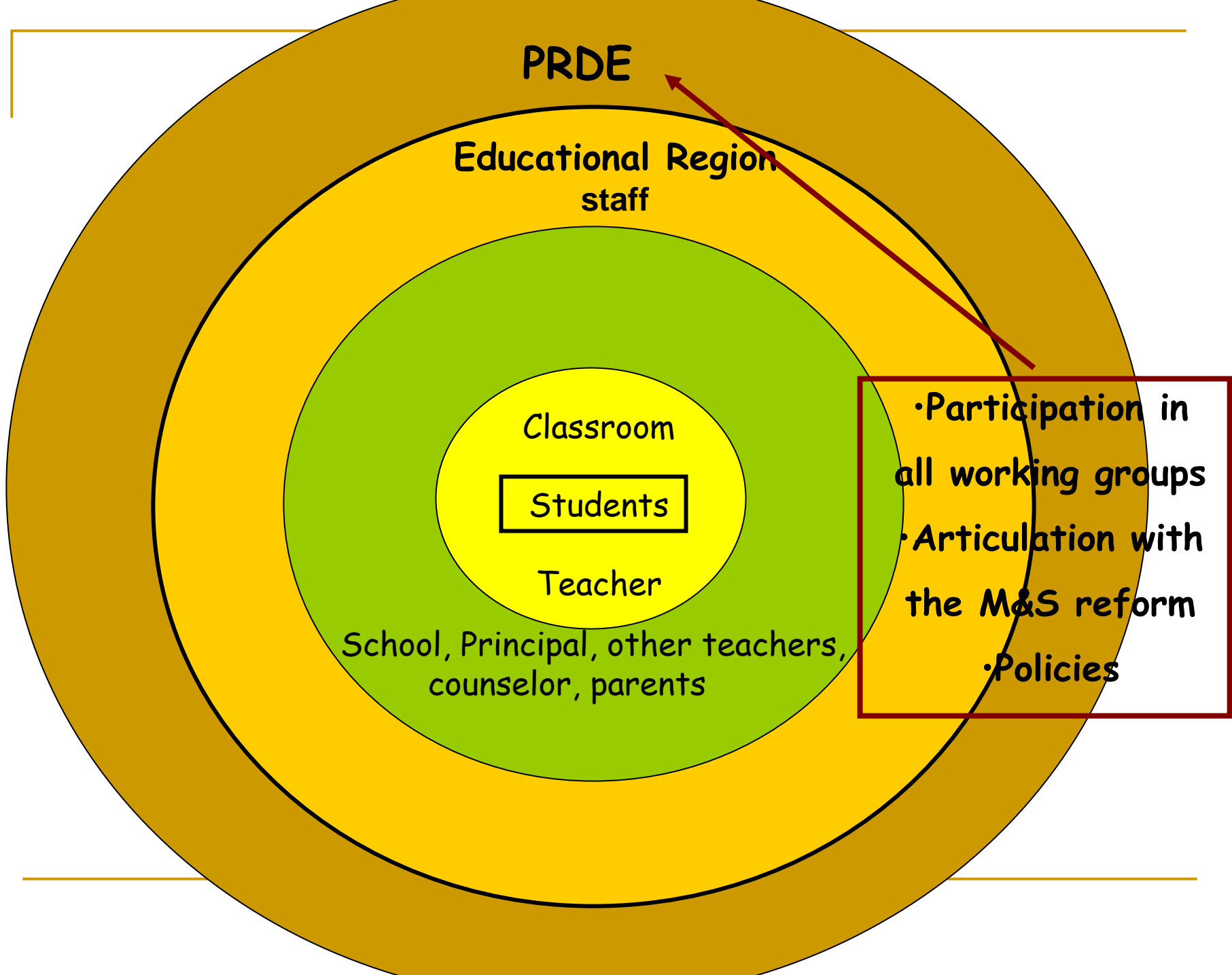
M&S Summer
Camps

Classroom

Students

Teacher

School, Principal, other teachers,
counselor, parents



PRDE

Educational Region
staff

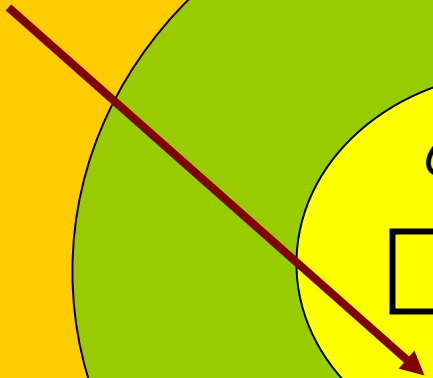
Classroom

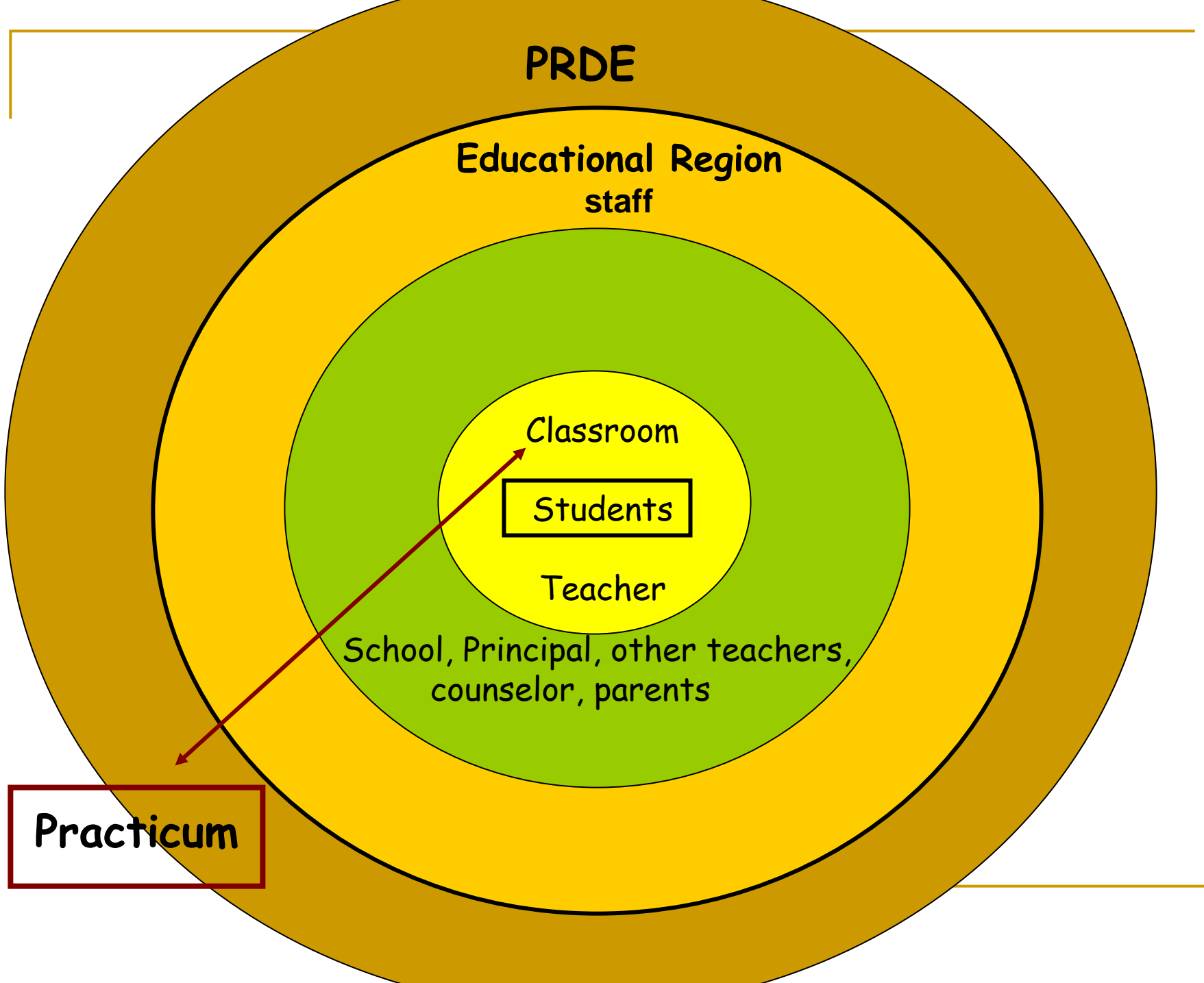
Students

Teacher

School, Principal, other teachers,
counselor, parents

Mentoring
during the
first two
years





PRDE

Educational Region
staff

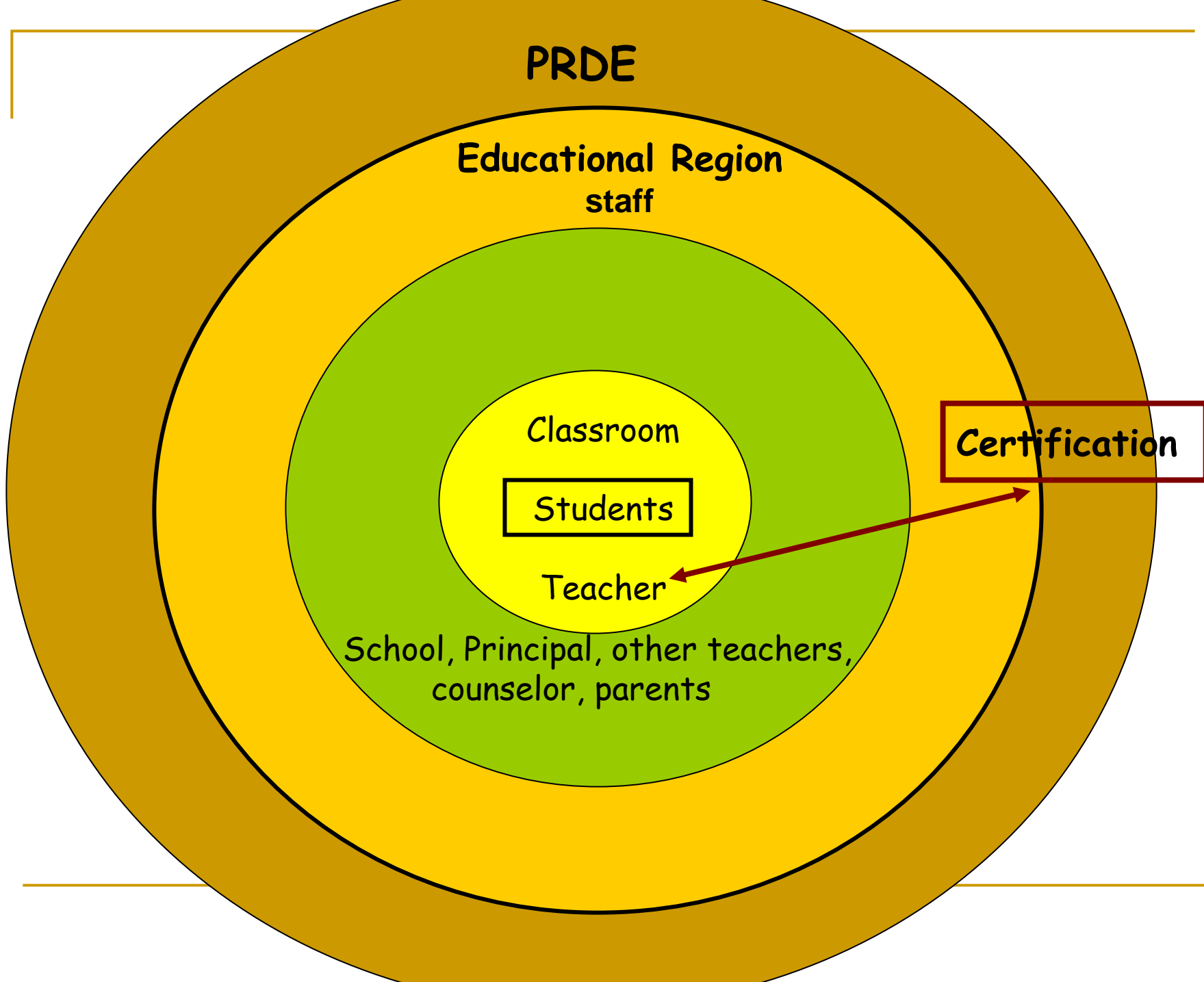
Classroom

Students

Teacher

School, Principal, other teachers,
counselor, parents

Practicum



PRDE

Educational Region
staff

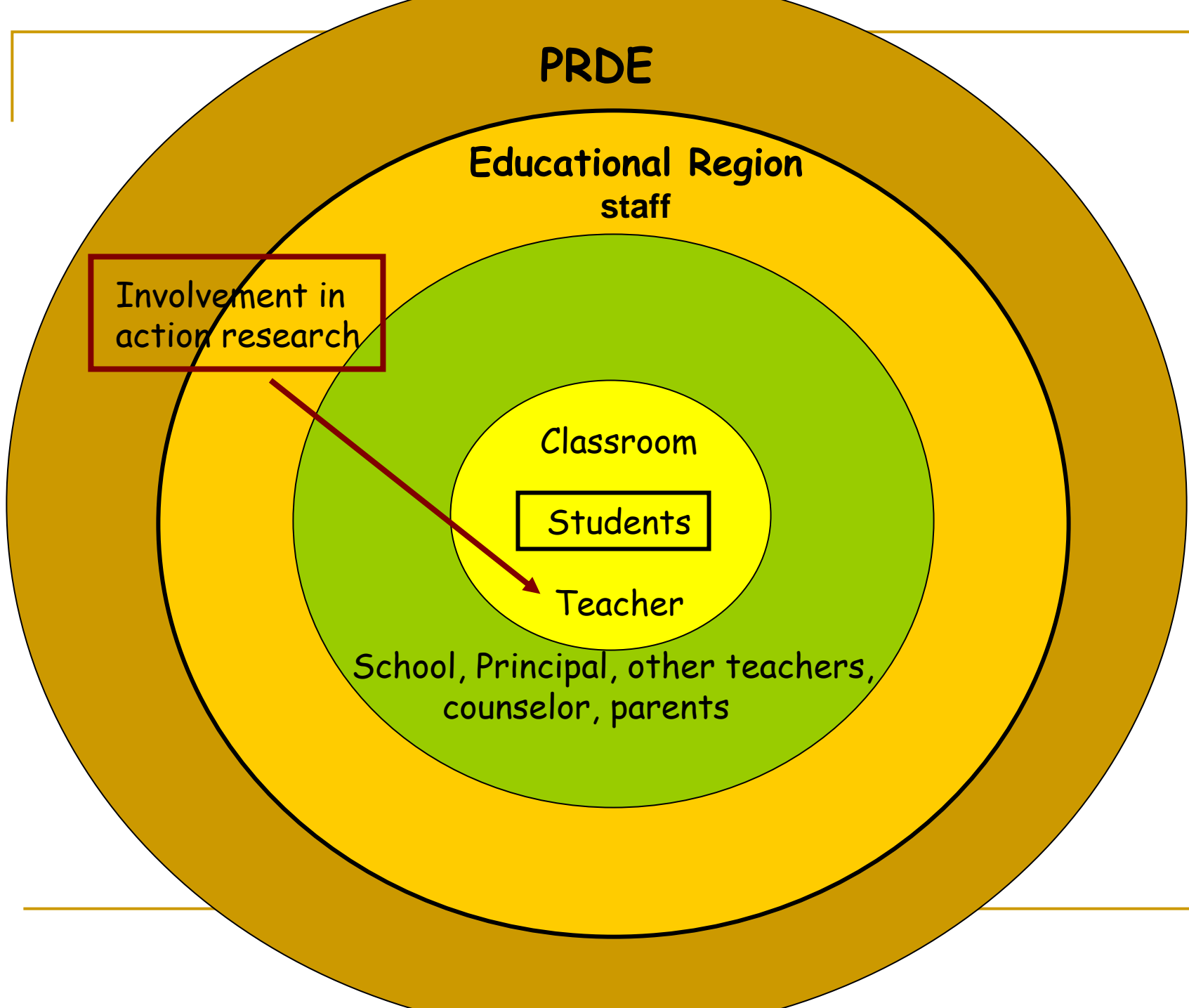
Classroom

Students

Teacher

School, Principal, other teachers,
counselor, parents

Certification



PRDE

Educational Region
staff

Involvement in
action research

Classroom

Students

Teacher

School, Principal, other teachers,
counselor, parents

PRMSP Goal #1



**Higher Student Achievement
Through Challenging Curricula
and Teacher Empowerment**

PRMSP Goal #2



**Increase and Sustain K-12
Math and Science Teachers
Through a Professional
Education Continuum**

PRMSP Goal #3



**Improve Knowledge Base on M&S
Teaching and Learning by
Means of Assessment,
Evaluation, and Research**

PRMSP Goal #4



**Create Sustainable K-20
Partnerships that Leverage
Maximum Support for K-12
M&S Education**

How are we achieving
these goals?



During Year One we concentrated our efforts mainly on:



- preparing the physical facilities that are housing the offices of PRMSP at each one of the five Core Institutions,
 - identifying the specific human resources to carry out the proposed activities and hiring them,
-

During Year One we concentrated our efforts mainly on:

- creating all the working teams,
 - establishing PRMSP as a learning organization,
 - selecting the first cohort of schools,
-

During Year One we concentrated our efforts mainly on:

- starting the formation of the schools as communities of learners,
- selecting and training the trainers for the PRMSP teachers' Professional Development Program,



During Year One we concentrated our efforts mainly on:

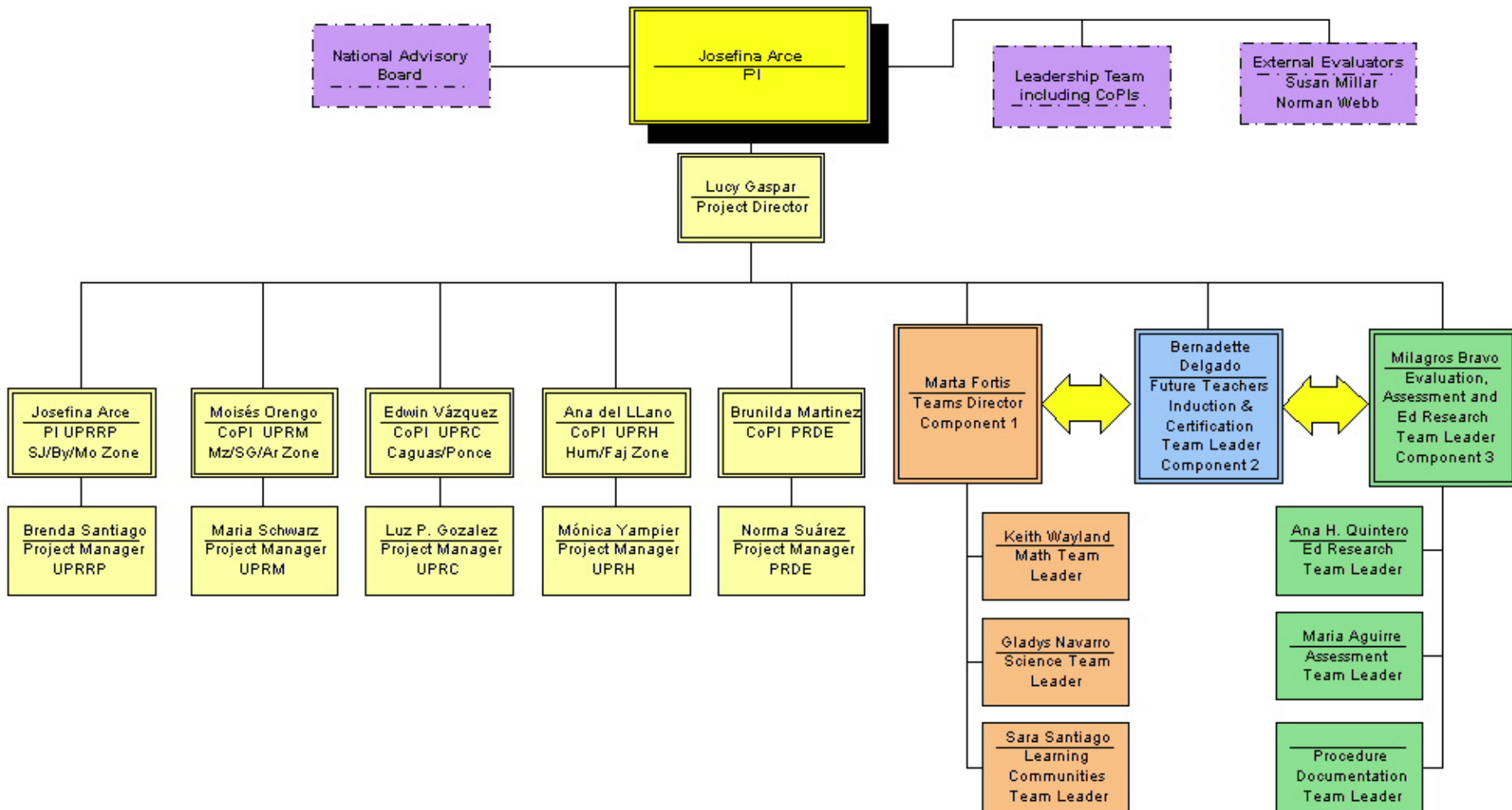
- implementing the Summer Professional Development program for the first cohort of PRMSP M&S teachers,
-

During Year One we concentrated our efforts mainly on:

- Coordinate with supporting partners and offer the first Summer M&S Camps for 6-12 grade students
- Offer the first Summer Research Program for preservice teachers



Puerto Rico Math & Science Partnership Organization Chart



Leadership Team

Josefina Arce, PI, Professor of Chemistry, UPR-Rio Piedras

Brunilda Martinez, CoPI, Undersecretary of Education for Academic Affairs

Moisés Orengo, CoPI, Dean of Arts and Sciences at UPR-Mayagüez

Edwin Vázquez, CoPI, Associate Professor of Biology, UPR-Cayey

Ana M. del Llano, CoPI, Professor of Biology, UPR-Humacao,

Keith Wayland, CoPI, Professor of Mathematics, UPR-Mayagüez

Lucy Gaspar, PD, former science teacher and Principal

Marta Fortis, Teams Director, Professor of Education, UPR-RP

Milagros Bravo, Coordinator of Evaluation, Professor of the Graduate School of Education, UPR-RP

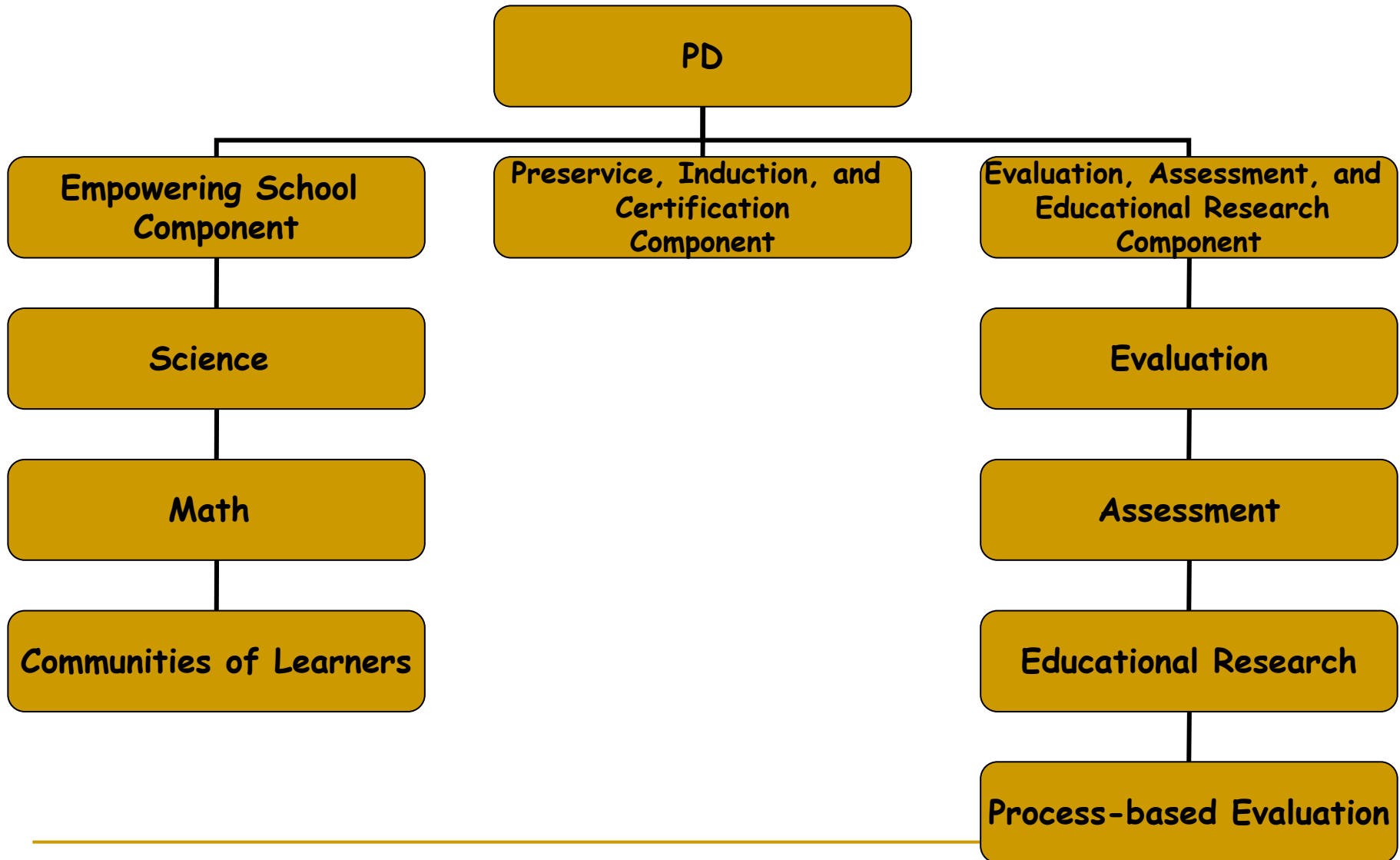
José Altieri, former PRDE Assistant Secretary for Academic Affairs, now Superintendent

Teresa Vega, Assistant Secretary for Academic Affairs

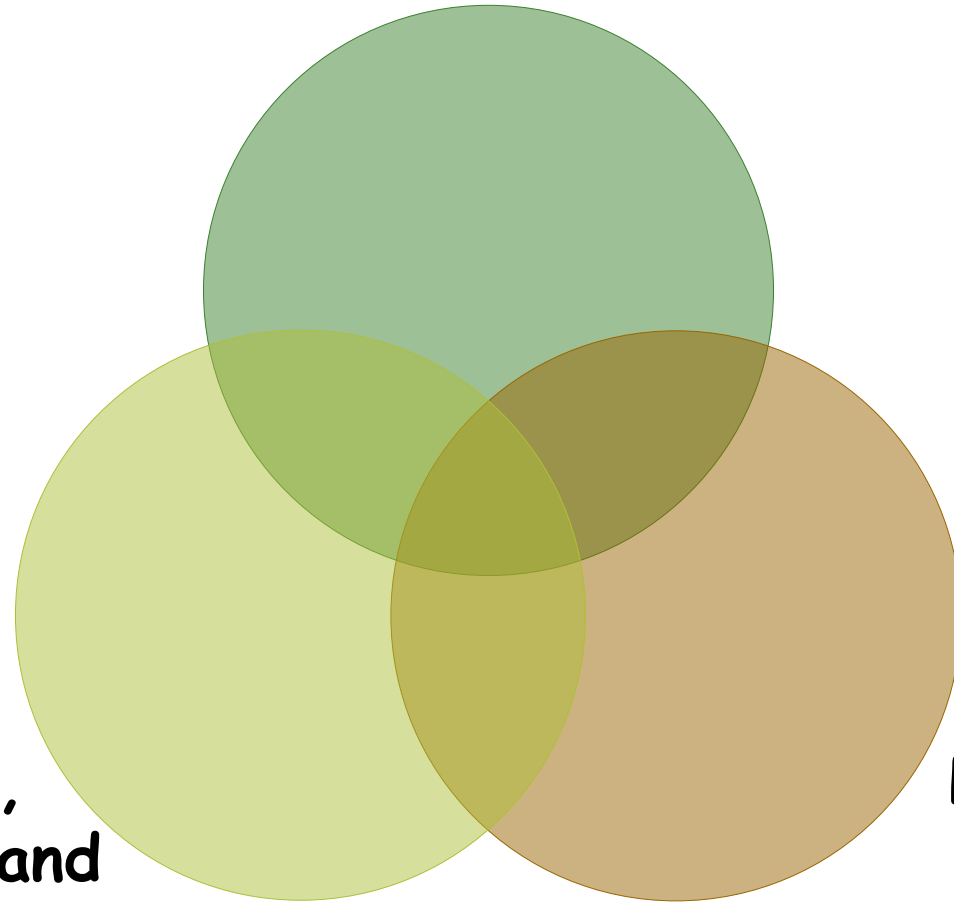
Myrna Fúster, PRDE Director of the Institute of Professional Development for Teachers

Raúl Marrero, Math Teacher, Pablo Colón Berdecia School

Organizational structure



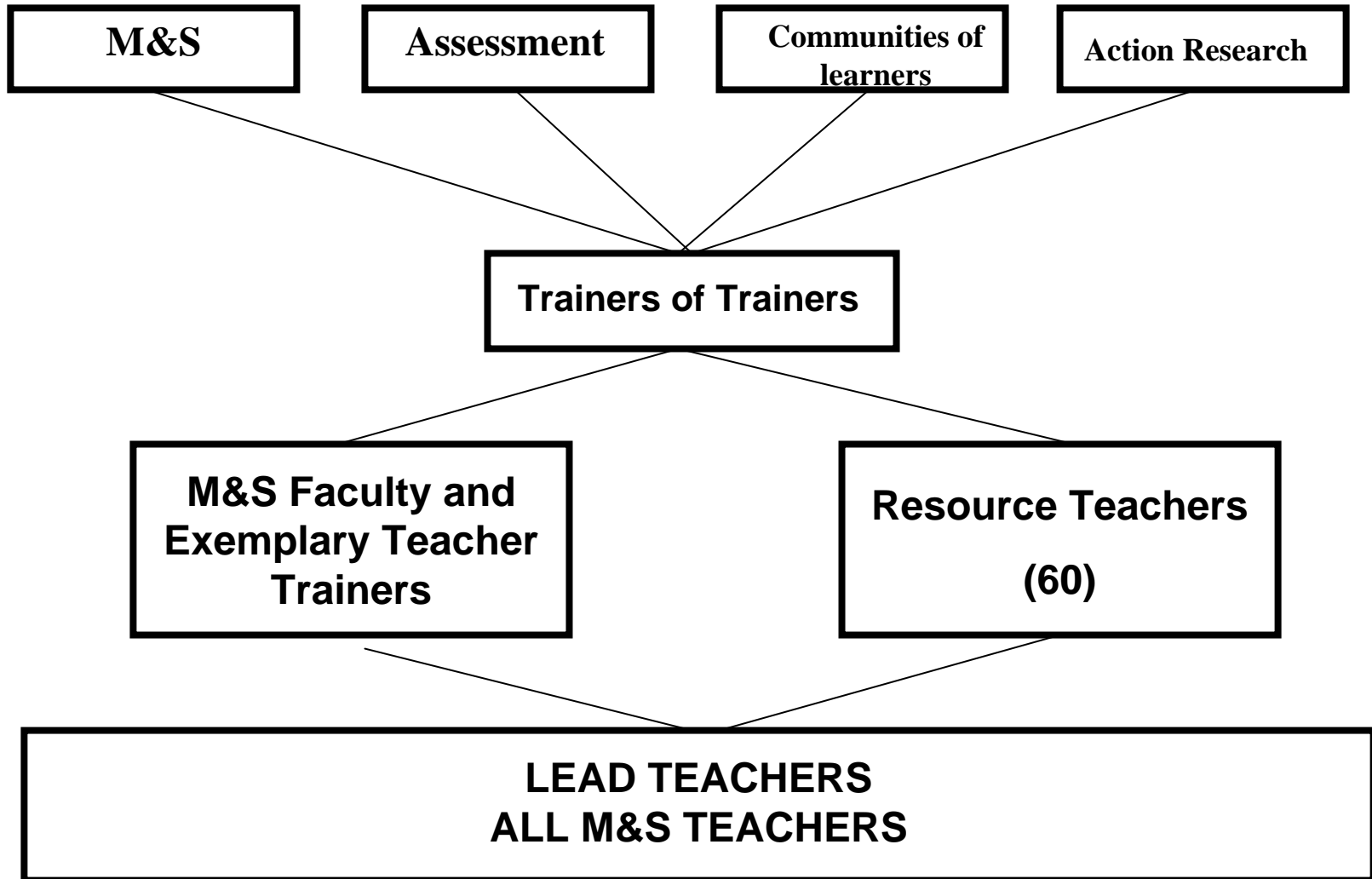
Empowering Schools



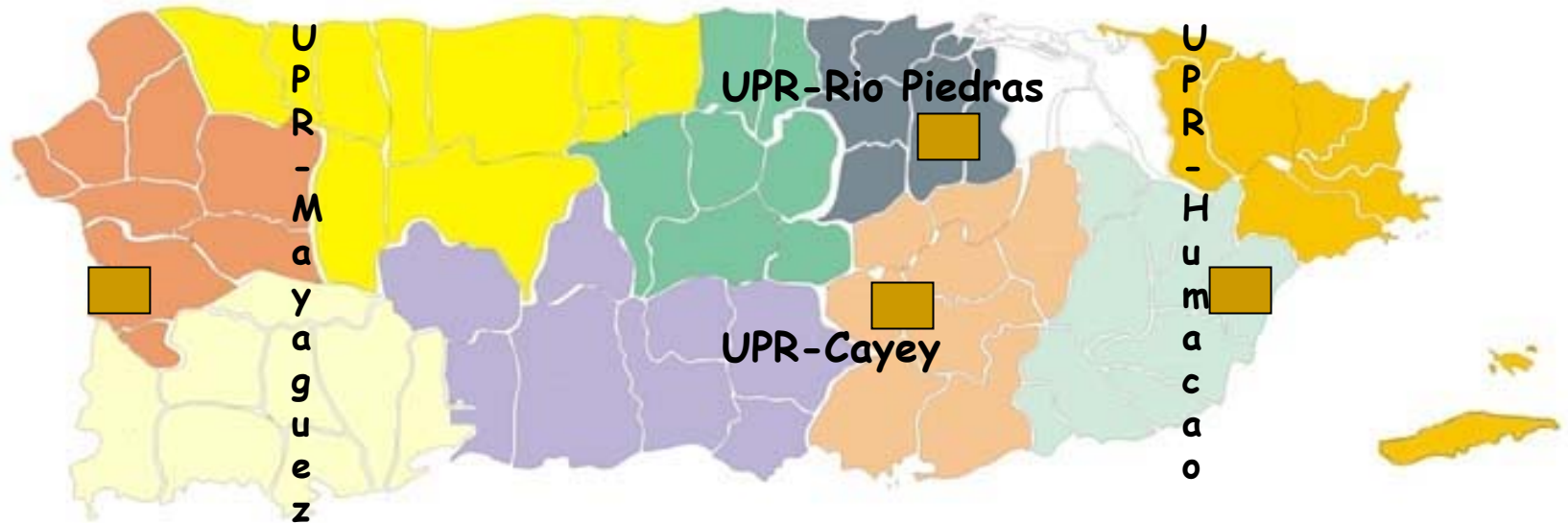
**Evaluation,
Assessment, and
Educational Research**

**Preservice,
Induction,
certification**

To provide authentic professional development



Educational Regions and Core Higher Education Institutions



MAYAGÜEZ
ARECIBO
MOROVIS
BAYAMÓN
SAN JUAN

FAJARDO
SAN GERMÁN
PONCE
CAGUAS
HUMACAO

UPR-M	45 Schools
UPR-RP	45 Schools
UPR-C	35 Schools
UPR-H	36 Schools

To improve communication and for follow up of Professional Development Program

All PRMSP Schools will receive:

- Desktop Computer with webconference software
 - Printer/fax/photocopier/scanner
 - Web camera
-

PRMSP activities impact students directly and indirectly

- Improving the M&S content they receive in their schools in a learning-centered environment
 - Participating in M&S summer camps giving context to what they are learning in their classes
-

Summer Camps for 6-12 students

- Inter American University-Bayamón
Water Quality Assessment and Ecosystem Health for junior and senior students.
 - UPR- Río Piedras
Nanotechnology Research Camp for junior and senior students
 - Hacienda Buena Vista in Ponce- the Conservation Trust of Puerto Rico
Science and Natural History at Hacienda Buena Vista for six grade students
 - Pontifical Catholic University :
Strengthening Knowledge and Skills in Science, Mathematics and oral communication through Environmental Science Experiences for junior students.
 - La Cabezas de San Juan Natural Reserve- the Conservation Trust
Math and Sciences in Ecology for six graders.
-











Do You Satisfy Where You Live?



Do You Satisfy Where You Live?



Do You Satisfy Where You Live?





