

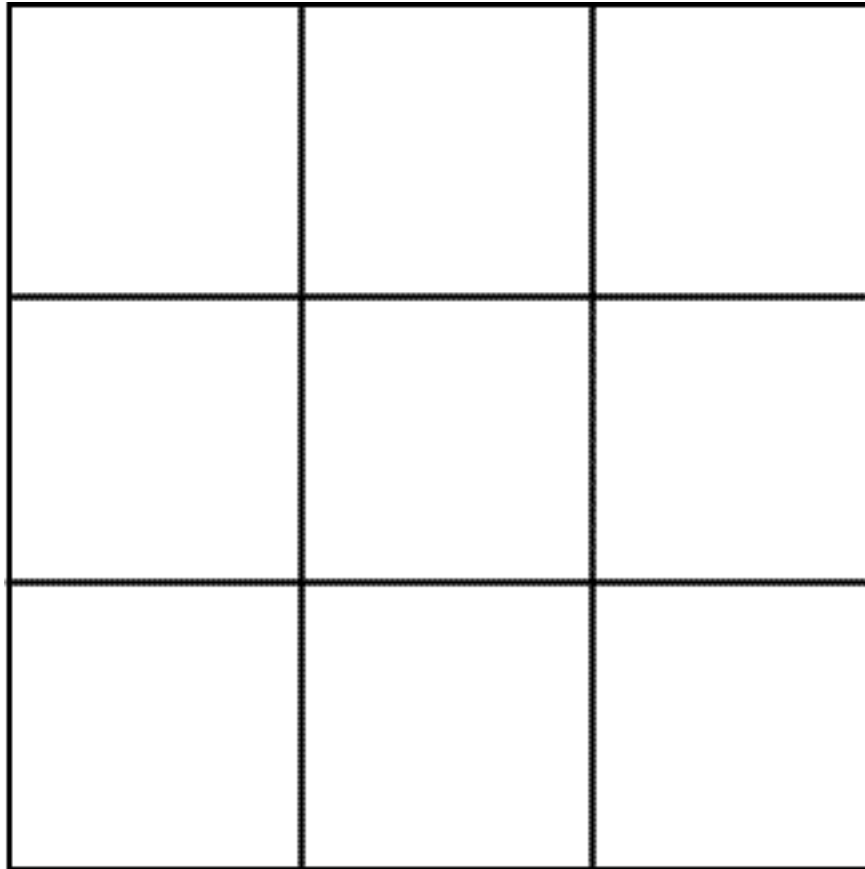
Let's Get Learning!

**Using adult learning activities
to increase teachers' knowledge of
content, development & pedagogy in math
& other disciplines**

Lisa Ginet & Donna Johnson

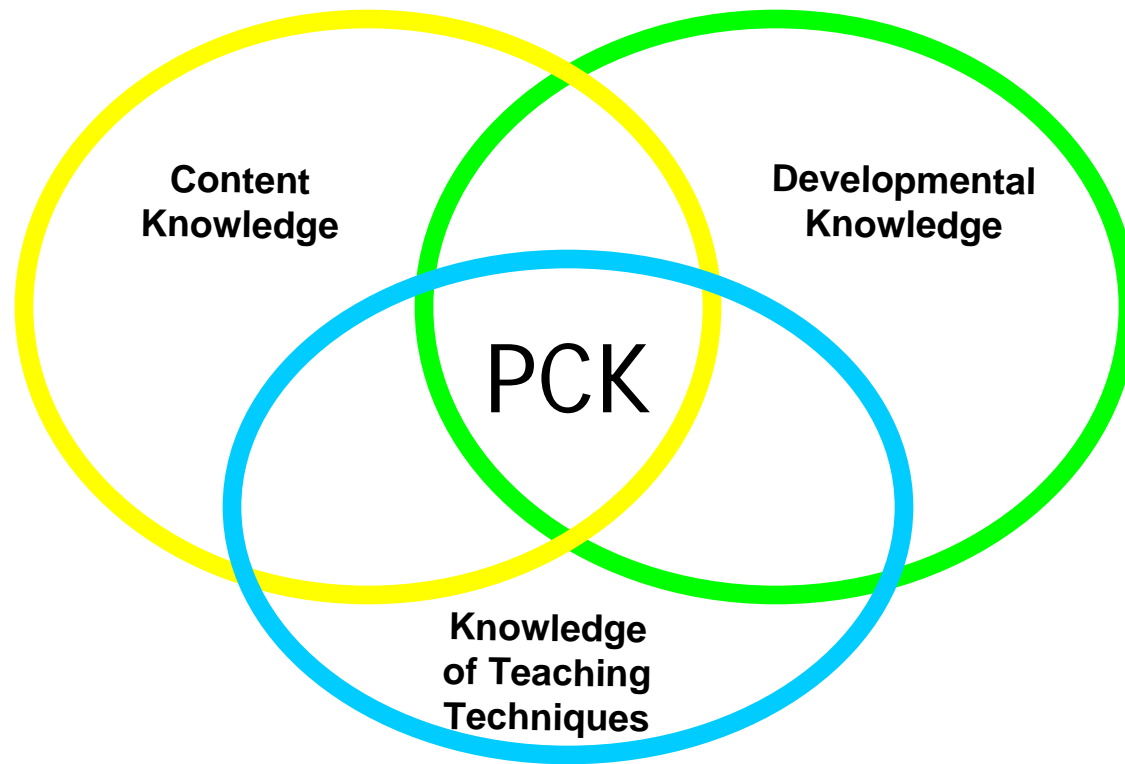
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NAEYC Annual Conference – Orlando Florida



How many squares can you find
in this picture?

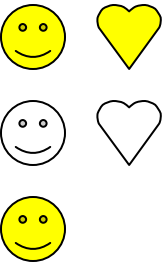
Pedagogical Content Knowledge



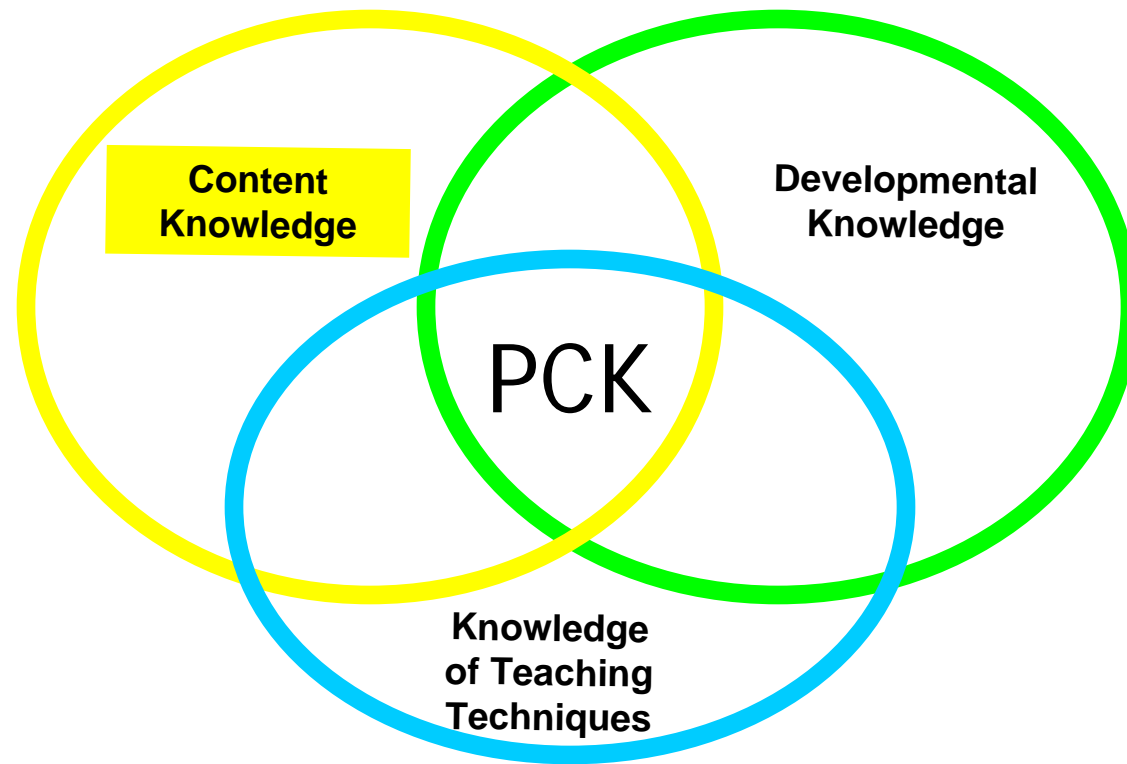
Example Adult Learning Activity

SORT & RE-SORT

Big Ideas in Sets

Topic	Big Ideas	Examples
Sets 	<ul style="list-style-type: none">• Attributes can be used to sort collections into sets.• The same collection can be sorted in different ways.• Sets can be compared and ordered, and numbers are a useful tool for doing so.	<ul style="list-style-type: none">• Color, size, number, shape, type of object, etc.• Autumn leaves can be sorted by type of tree or by color or by shape• <i>There are 2 more red bears than blue bears.</i>

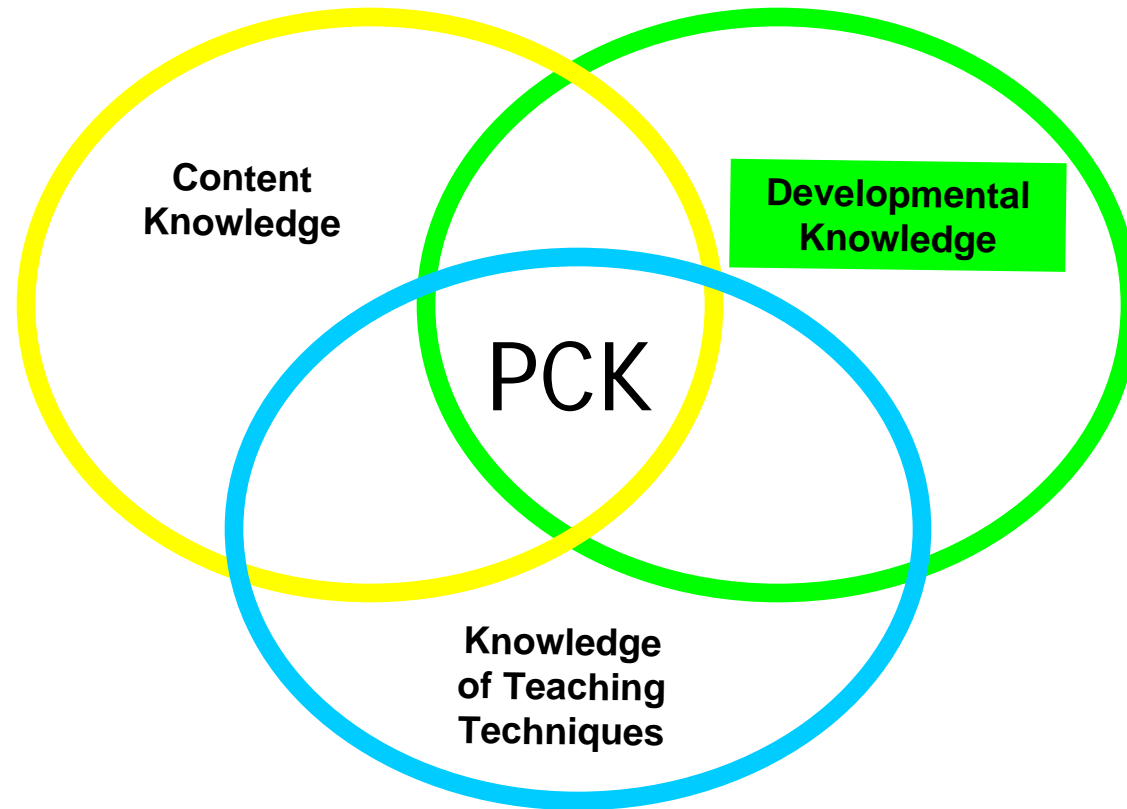
Pedagogical Content Knowledge



Learning Path

- At all ages, children classify intuitively.
- By 2 weeks of age, infants distinguish between objects they suck and those they do not.
- By 2 years, toddlers form sets with objects that are similar.
- At age 3, most children follow verbal rules for sorting
- In preschool, children can sort objects according to a given attribute and form categories (although they may switch attributes during the sorting).
- Not until age 5 or 6 do children sort consistently by a single attribute and re-classify by different attributes.

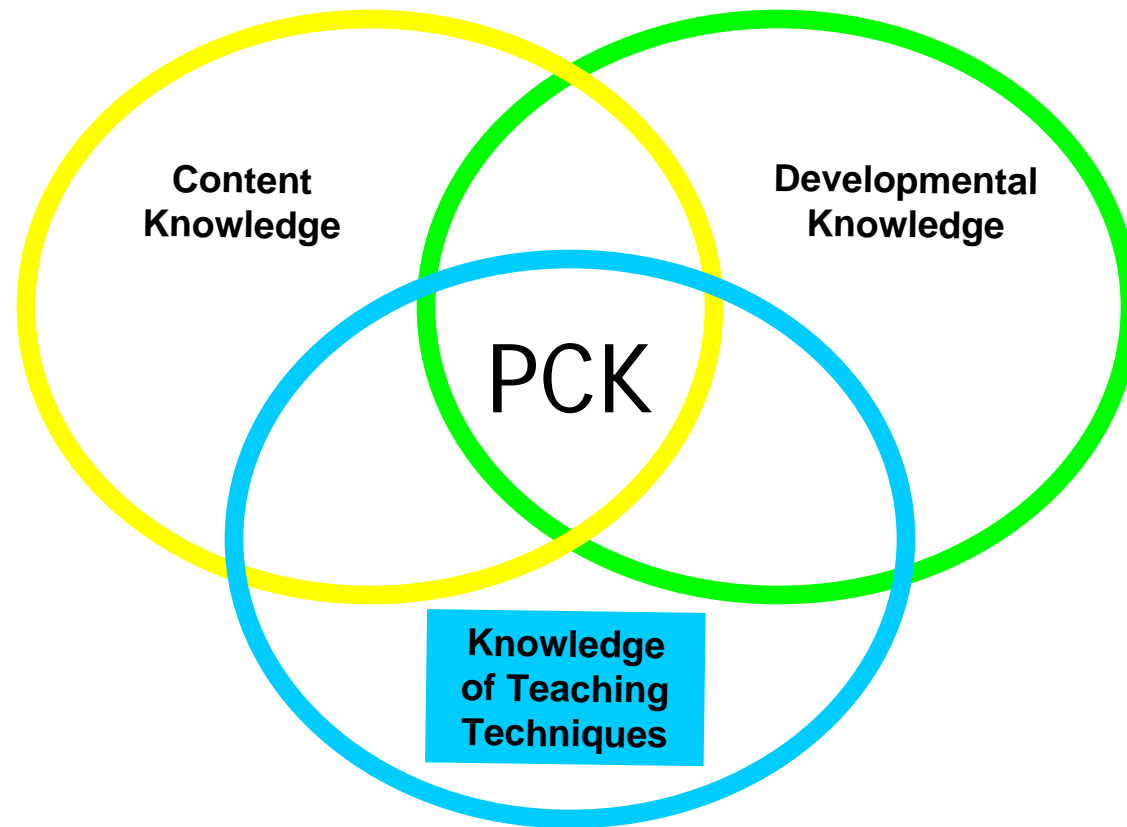
Pedagogical Content Knowledge



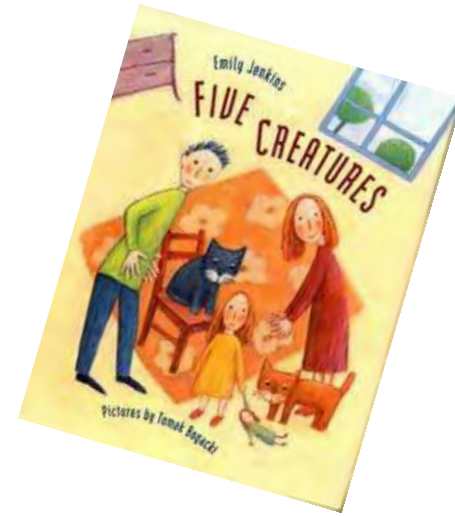
Teaching Implications

- Attribute recognition precedes organization (match...sort...pattern).
- Number of attributes is a difficulty factor.

Pedagogical Content Knowledge

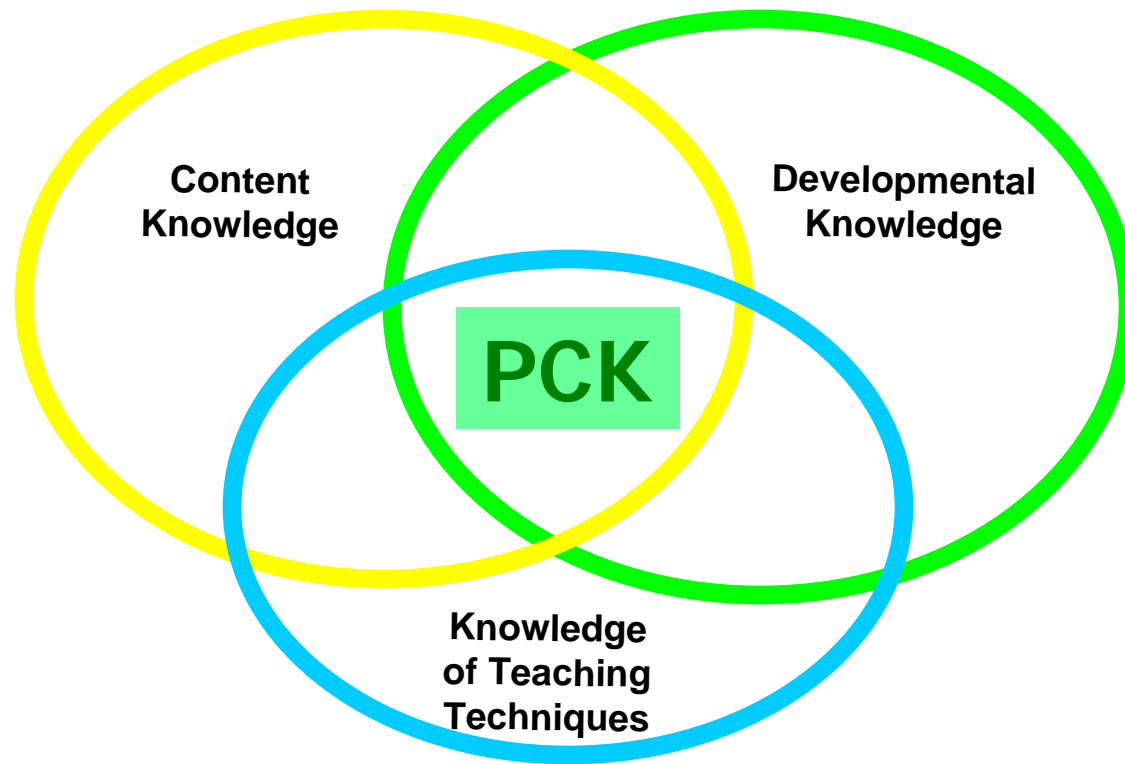


Activity for Children



- Beforehand, read *Five Creatures* by Emily Jenkins (maybe more than once).
- Place two hula hoops on floor or make two tape circles on floor.
- Say “some children have shoes with laces” (point to one hoop), “some children have shoes without laces” (point to other hoop)

Pedagogical Content Knowledge



Good Adult Learning Activities....

- are based on a central and coherent concept of the discipline being explored;
- pose a puzzle or problem;
- are interesting/complicated enough to capture and retain adult attention;
- clearly focus thinking on the relevant content/ideas;
- are easy to implement in an adult PD setting;
- & may have more than one solution or route to solution.

Take-Away Messages

Content is complicated.

Teachers need to be learners.

THANK YOU!

lginet@erikson.edu

djohnson@erikson.edu