SAMR and Curriculum Redesign

Ruben R. Puente dura, Ph.D.
Redefinition
Tech allows for the creation of new tasks, previously inconceivable

Modification
Tech allows for significant task redesign

Augmentation
Tech acts as a direct tool substitute, with functional improvement

Substitution
Tech acts as a direct tool substitute, with no functional change

Ruben R. Puentedura, *As We May Teach: Educational Technology, From Theory Into Practice*. (2009)
Fig. 2. Estimates by 160 gynecologists of the probability that a woman has breast cancer given a positive mammogram, before and after receiving training in how to translate conditional probabilities into natural frequencies.
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**Examples**

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Scholarly Primitives

Discovering
- selecting according to a criterion, showing relationships of items selected to the original set

Annotating
- categorizing, providing commentary, analyzing
- find differences, similarities and create meaning from them

Comparing
- linking, referencing

Referring
- searching, browsing, accessing, collecting

Sampling
- showing an example, highlighting features within an example

Representing
- changing depiction mode, publishing

Illustrating
- publishing
Pedagogy

Content

Technology

PK

PCK

CK

TPK

TPCK

TCK

TK

Location
Position in space

Condition
Mix of natural & artificial features that give meaning to a location

Links
Connections between places

Formal Region
Group of places with similar conditions

Functional Region
Group of places linked together by a flow
<table>
<thead>
<tr>
<th>Spatial Thinking Skills</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparison</strong></td>
<td>How are places similar or different?</td>
</tr>
<tr>
<td>Aura</td>
<td>What is this place’s influence on nearby places?</td>
</tr>
<tr>
<td>Region</td>
<td>What nearby places are similar to this one?</td>
</tr>
<tr>
<td>Transition</td>
<td>How do things change between two places?</td>
</tr>
<tr>
<td>Hierarchy</td>
<td>What larger area is this area inside? What smaller areas are inside it?</td>
</tr>
<tr>
<td>Analogy</td>
<td>What places have similar conditions?</td>
</tr>
<tr>
<td>Pattern</td>
<td>What distinctive arrangements can you see on a map?</td>
</tr>
<tr>
<td>Association</td>
<td>Are these patterns similar?</td>
</tr>
</tbody>
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