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Elementary Education Capstone: Modeling Professional Practice

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The Goals of the Capstone Project
1. Demonstrate competency in one aspect of teaching;
2. Demonstrate competency in one theme by using a diverse range of products clusters from the whole program;
3. Reflective product.

TLTE’S Cognitive Map: Themes
TLTE has defined nine themes that reflect its values, mission and goals. These serve as the foundation for all the work done in the department. For example:
- Teaching Subject Matter
- Theories of Learning
- Growing Professional Knowledge

Items in Capstone Rubric
- Statement of competency;
- Diverse products/evidence:
  1) Student teaching; 2) Methods courses; 3) Practicum experiences; 4) Other education courses; 5) Any other courses; 6) Outside experiences
- Synthesis-what are common aspects, what are unique aspects, how does the evidence support my claim;
- Reflection: 1) What did I learn; 2) How do I identify what is still left to learn

Format of Capstone Project
- In person presentation-NOT a paper
- Poster (One piece/Power-point/Tri-fold)
- Computer/Mobile device
- Samples of work and reflections
- Be ready to discuss your work and answer questions from faculty and students

Algorithm of Capstone Project
1. Guide Students
2. Group Presentations
3. Scores presented to pairs
4. Reflect on scores to pairs
5. Suggest changes to faculty throughout the program
6. Reflect in faculty

Method of Analysis
- Descriptive Analysis
- Inter-rater agreement
- Factor Analysis
- Internal Consistency

Findings
Figure 1: Frequency By Themes
Figure 2: Capstone Project Total Score
Figure 3: Capstone Score By Semester

Results
- Not all themes show up, evidence that students avoid some difficult themes.
- Better guidance from faculty results in better outcomes
- Reliability and validity are acceptable
- Scores represent two factors: presentation, content
- Faculty engagement is in real time and reduces the need to report and spur discussions about student outcomes
- Faculty has gained a sense of student progress throughout the program
- Most students report learning and satisfaction from the experience
- Greater faculty engagement with program and not just courses taught

Program Learning
Changes made as a result of Capstone:
- Integrating presentation into existing course assignments
- More attention to foundational thinking throughout coursework
- Increase faculty understanding of capstone and PD in scoring

Table 1: Inter-rater agreement by items
<table>
<thead>
<tr>
<th>Items</th>
<th>Kappa Coefficient</th>
<th>Agreement</th>
<th>N of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency Statement</td>
<td>.54*</td>
<td>Moderate</td>
<td>360</td>
</tr>
<tr>
<td>Evidence</td>
<td>.61*</td>
<td>Good</td>
<td>360</td>
</tr>
<tr>
<td>Synthesis &amp; Reasoning</td>
<td>.61*</td>
<td>Good</td>
<td>358</td>
</tr>
<tr>
<td>Reflection</td>
<td>.62*</td>
<td>Good</td>
<td>358</td>
</tr>
<tr>
<td>Organization of Oral Present</td>
<td>.54*</td>
<td>Moderate</td>
<td>365</td>
</tr>
<tr>
<td>Visual Aids</td>
<td>.53*</td>
<td>Moderate</td>
<td>364</td>
</tr>
</tbody>
</table>

Table 2: Inter-rater agreement by semester
<table>
<thead>
<tr>
<th>Semester</th>
<th>Kappa Coefficient</th>
<th>Agreement</th>
<th>N of Cases</th>
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</thead>
<tbody>
<tr>
<td>Spring11</td>
<td>.13*</td>
<td>Poor</td>
<td>81</td>
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<tr>
<td>Fall11</td>
<td>.42*</td>
<td>Moderate</td>
<td>75</td>
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<tr>
<td>Spring12</td>
<td>.21*</td>
<td>Fair</td>
<td>85</td>
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<tr>
<td>Spring13</td>
<td>.78*</td>
<td>Good</td>
<td>54</td>
</tr>
<tr>
<td>Fall13</td>
<td>.56*</td>
<td>Moderate</td>
<td>66</td>
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Table 3: Factor Analysis and Reliabilities
<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Communi ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence</td>
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<td>-.942</td>
<td>.88</td>
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<tr>
<td>Reflection</td>
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<td>Synthesis &amp; Reasoning</td>
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<td>-.061</td>
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<tr>
<td>Visual Aids</td>
<td>-.030</td>
<td>.592</td>
<td>.33</td>
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<tr>
<td>Competency Statement</td>
<td>.100</td>
<td>.384</td>
<td>.17</td>
</tr>
</tbody>
</table>

% of Variance | 46.643% | 11.422% |
Total Variance | 58.065% |
Factor Internal Consistency | .911 | .519 |

Note: y² = 3.00, df=4, p=.42, Alpha for whole scale is .775.