Introduction: Dr. Mary Kite (Ball State)
What is a “capstone”?  

Integrative Experience and Demonstration of Learning

- **APA assessment cyber guide**: a capstone is a class in which senior psychology majors are required to pull together what they have learned in their previous classes and demonstrate they are capable of doing what they should be able to do as they graduate from the program.
- **Palomba and Banta**: Provides an opportunity to demonstrate comprehensive learning in the major through some type of product or performance.

Preparation for the future

- Can assist in preparing for job searches and/or graduate school.

Program and Student Assessment:

- can also provide psychology departments an opportunity to assess whether or not they have been successful in producing competent majors as well as use results to improve the curriculum.

Existing Literature?

Promotion of Capstones…..

- **Capstones in General**: Has been noted that “capstones provide an ideal opportunity to identify, assess, and document what students are learning and how effectively they can apply what they have learned to the problems facing them and society.”
- **Capstones in Psychology**: The Brewer group proposed that psychology curriculums should conclude with an integrative capstone experience which could take several forms. In 2008, an APA Task Force made a strong recommendation that students should complete capstone experiences.

Outcome of the Task Force?

What is being taught and learned in psychology courses? – The Undergraduate Psychology Curriculum: Call for a Core:

- All students complete introductory psychology first & then as soon as possible complete courses in Research Methods and Statistics.
- Students complete at least one course in each content domain:
  - Biological bases (e.g., Physiological psychology)
  - Developmental (e.g., Life-span development)
  - Learning and cognition (e.g., Cognitive)
  - Sociocultural (e.g., Social psychology)
  - Diversity and Ethics should be well-integrated in all courses.
- Students should have the opportunity to apply their knowledge beyond core subjects.
- Students should complete some **capstone experience**, such as:
  - Specific capstone course
  - Synthesis course
  - Honors or independent study course

Actual Research?

- Stoloff et al. (2010) explicity looked at capstone courses and found that capstone experiences were required at 40% of the schools (meaning the majority of those 374 schools surveyed did not require a capstone experience). Decrease from the 63% of institutions requiring a capstone found by Perlman and McCann in 1999.
- The Stoloff group:
Noted one of the reasons for the decrease in capstones may stem from the need to offer the psychology major to more students and the cost of offering small-class experiences, such as capstones tend to be, makes this difficult to accomplish.

Called for research regarding whether students completing capstones have any measure of greater success.

**So? What did we do?**

- Formed a team to investigate capstones and portfolios in undergraduate psychology programs. 15 schools
- Sought funding:
  - Research grant from Governors State University (Johnson)
  - STP Small Partnership Grant (Close)
- Stages:
  - Survey regarding capstones (NOW)
  - Research capstone effects (Year Two)
  - Research portfolio effects (Year Two)

**Outcomes?**

- **Compare capstones and portfolio use** across a variety of undergraduate psychology programs.
- **Compare capstone and portfolio effectiveness** at:
  - Providing an Integrative Experience
  - Preparation for the Future
  - Use in Program and Student Assessment
- **Develop a resource page** for STP about capstones and portfolios

**Online Survey**

- Up and running.
- As of today, we are reporting on 69 schools who have responded.
- Address:

  - [www.surveymonkey.com/s/CapstoneProject](http://www.surveymonkey.com/s/CapstoneProject)

**Report from the Project: Dr. Jean Johnson: Project Director** *(Governors State)*

- 69 Schools have responded to the online survey.
- Some general results comparing public and private schools:
  - Privates more likely to have a capstone \( (p = .074) \)
  - Privates more likely to have a service learning component \( (p = .088) \)
  - Privates more likely to have smaller capstone courses \( (p = .040) \)
  - Publics more likely to be taught by a single faculty member \( (p = .088) \)
  - Publics more likely to offer for 3 or more hours of credit \( (p = .045) \)

**Program Characteristics**

**Type of Institution:**

- Community College 2
- Public Four Year Univ. 31
- Public Upper Division 2
- Private nonprofit 29
- Private for Profit 5
- Total 69

**Highest degree Awarded?**

- 33% award the Bachelors
- 30% award Doctorates
- 22% award the Masters
- 15% remaining (12% Specialist, 3% Associates)

All of the programs responding offer a **general psychology** program.

Five offer a psychology teacher track.

Other tracks noted (6) include: Health Sciences; Human Services; Neuroscience; Personnel Psychology; Pre-Clinical; Youth Leadership Development

Size of programs (as indicated by number of graduating seniors) ranged from 4-320 \( (M = 93, n = 57) \).
**Capstone Characteristics**

Does your program have something that meets the APA definition of a *capstone*?
- Yes: 79% (54)
- No: 21% (14)

How many capstones offered?
- Average was 2 (Range: 1-10)

How long have you offered/required a capstone?
- Average was 17.5 years (Range: 0-100)

In answer to a question about the first word that comes to mind when hearing the term “capstone”?
- 24: Integration/Summary/Synthesis
- 20: Culmination/Final
- 6: Research
- 6: Senior Seminar/Thesis

<table>
<thead>
<tr>
<th>Title of Capstone</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td>Senior Seminar/ Seminar in Psychology/ Advanced Topics/ Readings in...</td>
<td>19</td>
</tr>
<tr>
<td>Research Methods/ Research Seminar/ Capstone Research/ Project/ Advanced Research/ Senior Lab/ Directed Research/ Independent Study</td>
<td>19</td>
</tr>
<tr>
<td>History &amp; Systems in Psychology/ Systems and Theories</td>
<td>11</td>
</tr>
<tr>
<td>Practicum/ Internship/ Field Experience</td>
<td>10</td>
</tr>
<tr>
<td>Capstone/ Capstone in Psychology/ Senior Capstone/ Senior Project/ Honors Project</td>
<td>7</td>
</tr>
<tr>
<td>Thesis/ Senior Thesis</td>
<td>5</td>
</tr>
<tr>
<td>Psychological Issues/Values</td>
<td>3</td>
</tr>
<tr>
<td>Testing and Measurement</td>
<td>2</td>
</tr>
<tr>
<td>Portfolio/ Exit Exam</td>
<td>2</td>
</tr>
<tr>
<td>Ethics in Psychology</td>
<td>1</td>
</tr>
<tr>
<td>Critical Thinking about Psychology Capstone</td>
<td>1</td>
</tr>
<tr>
<td>Others: Transition Year / Synthesis in Psychology</td>
<td>2</td>
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</tbody>
</table>

67% indicated the capstone as required in their major.
97% indicated their capstone is associated with and coordinated by their unit.
85% are taught by a single faculty member and 15% are team taught.
74% of capstones are offered for three or more hours of credit.
82% are graded courses (4% pass/fail, 14% other such as non-credit).
53% have lower class sizes for capstones (Range: 2-40, M = 18). Larger schools generally have larger capacity capstones, but not significantly so ($p = .347$).

Prerequisites? Range 0-10 with average of 4 and the majority indicated no problems enforcing the prerequisites.
Only 47% require students to be in their last term or senior year to take a capstone.

**Classification of the Capstone?** (Checked any applicable)
- 93% Discipline-and Department-Based course
- 37% Transition course (“life after college”)
- 26% Career-planning course
- 13% Interdisciplinary course

<table>
<thead>
<tr>
<th>Capstone Component</th>
<th>Number Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Presentation</td>
<td>40</td>
</tr>
<tr>
<td>Major Project</td>
<td>38</td>
</tr>
<tr>
<td>Final (Exit) Exam</td>
<td>21</td>
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<tr>
<td>Thesis</td>
<td>19</td>
</tr>
<tr>
<td>Explicit Consideration of Graduate School</td>
<td>18</td>
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<tr>
<td>Group Project</td>
<td>17</td>
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<tr>
<td>Portfolio Development</td>
<td>14</td>
</tr>
<tr>
<td>Use of Career Center</td>
<td>13</td>
</tr>
<tr>
<td>Internship</td>
<td>12</td>
</tr>
<tr>
<td>Work Shadowing</td>
<td>2</td>
</tr>
<tr>
<td>Service Learning/ Community Service</td>
<td>7</td>
</tr>
</tbody>
</table>
Barriers to Capstones? Of 14 programs responding as no capstone, 5 are not considering it and 9 are considering developing one.

<table>
<thead>
<tr>
<th>Barriers (no real pattern based upon size of school)</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td>Cost (e.g., smaller classes)</td>
<td>10</td>
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<tr>
<td>Too demanding of faculty time and resources</td>
<td>9</td>
</tr>
<tr>
<td>It is not required at our institution</td>
<td>7</td>
</tr>
<tr>
<td>Difficulty in assessing that integrative learning has taken place</td>
<td>7</td>
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<tr>
<td>Difficulty in developing specific expectations for a capstone</td>
<td>6</td>
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<tr>
<td>Concerns regarding the subjective evaluation inherent in many capstone types</td>
<td>3</td>
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<tr>
<td>Difficulty in establishing cross department partnerships</td>
<td>3</td>
</tr>
<tr>
<td>We use a different method to collect summative program information (e.g., exit exams)</td>
<td>3</td>
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<tr>
<td>Lack of faculty buy-in (resistance)</td>
<td>3</td>
</tr>
<tr>
<td>Does not adequately assist or is not a good experience for average or below average students</td>
<td>3</td>
</tr>
<tr>
<td>We had a capstone and discontinued it</td>
<td>3</td>
</tr>
<tr>
<td>Our department is very specialized in nature and a generalized capstone would be difficult</td>
<td>2</td>
</tr>
<tr>
<td>We feel capstones offer too much flexibility for less motivated students to handle well</td>
<td>1</td>
</tr>
<tr>
<td>Too demanding of student time and resources</td>
<td>1</td>
</tr>
<tr>
<td>Ineffective predictor of student success</td>
<td>0</td>
</tr>
</tbody>
</table>

Portfolios
14 (28%) schools w/ a capstone required a portfolio.
In terms of portfolio type: (checked all that applied)

- **Documentation Portfolio (6):** Also known as a "working" portfolio. Specifically, this approach involves a collection of work over time showing growth and improvement reflecting students' learning of identified outcomes.

- **Process Portfolio (7):** Documents all facets or phases of the learning process. Can emphasize students' reflection upon their learning process, including the use of reflective journals, think logs, and related forms of metacognitive processing.

- **Showcase Portfolio (5):** Generally used for summative evaluation of students' mastery of key curriculum outcomes. It should include students' very best work, determined through a combination of student and teacher selection.

What are the main uses for portfolios in your program/capstone?
- 12: Program outcome evidence
- 11: Career preparation
- 11: Graduate school preparation
- 9: Course outcome evidence
- 8: Product portfolio (samples of student work)

Assessment: Dr. Al Tuskenis (Governors State)
Capstone Effects?
- Research is fairly limited and almost non-existent for undergraduate psychology.
- One study focused on a specific capstone course developed to foster knowledge and interest in college psychology teaching careers.
- Another was focused on student identity (as a college student).
- A third researched student learning outcomes as part of a capstone course experience. Although the capstone experience had positive results in terms of some skill development and self-confidence, there were some questions raised regarding the effects of capstones on student perceptions of the department.

Research on Portfolios?
- One author: “the portfolio not only offers a tool for authentic assessment but also a means for students to be reflective practitioners... a natural complement to learning... [and] here to stay”. 
Another found that evaluation of the “psychology portfolio” was really an evaluation of using a portfolio method for teaching writing and thinking in psychology classes, not a portfolio in the sense of a comprehensive or integrative program portfolio.

Most have focused upon portfolio use only as a career tool but have experienced positive results.

Responses Regarding Student Assessment
Degree to which you feel your capstone(s) provides you with information regarding how well an individual student has met the learning outcomes of the capstone(s):

- None at all: 2
- Minimal and only associated with passing the capstone or not: 1
- Some: 11
- Extensive, but only related to an individual capstone performance: 12
- Extensive and related to both capstone and program performance: 24

Degree to which you feel your capstone(s) provides you with information regarding how well an individual student has met the learning outcomes of your program:

- None at all: 2
- Minimal and only associated with passing course requirements: 0
- Some: 16
- Extensive, but for individual course goals only: 8
- Extensive and related to many program goals: 22

Responses Regarding Program Assessment
(4 point Likert type scaled: None—Extensive)
Degree to which you feel you use capstone(s) outcome information to determine the effectiveness of your capstone experiences: \( M = 3.08, n = 48 \)
Degree to which you feel capstone(s) outcome information is used to determine the effectiveness of your program generally: \( M = 3.04, n = 50 \)

Future of the project: Dr. Wendy Close (Wisconsin Lutheran)
- Evaluation
  - Effectiveness of Capstones
  - Effectiveness of Portfolios
- Capstone Resource Page for STP
  - Sample syllabi
  - Sample projects
  - Sample assessments
  - Directory of those willing to mentor

For more information, please contact:
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Capstone Project References


