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Moving Faculty towards Learning-Centered Teaching

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Presenters
Judith Longfield, Hsiu-Lien Lu, Diana Sturges, Ellen Hamilton, Kevin Psonak, and Melissa Gayan

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Teaching-Learning Beliefs Inventory

**Directions** Circle the appropriate number to indicate the degree to which you agree or disagree with each of the following statements:

1. Teaching students the component skills of complex tasks, prepares them to perform these complex tasks.  
   - Strongly Disagree 1  
   - Disagree 2  
   - Undecided or Neutral 3  
   - Agree 4  
   - Strongly Agree 5

2. When students recite or recall information during class discussions and on tests, they are demonstrating their ability to use this knowledge in multiple contexts.  
   - Strongly Disagree 1  
   - Disagree 2  
   - Undecided or Neutral 3  
   - Agree 4  
   - Strongly Agree 5

3. When you introduce a new concept, it is not important to access students’ prior knowledge if you plan to cover the concept in depth.  
   - Strongly Disagree 1  
   - Disagree 2  
   - Undecided or Neutral 3  
   - Agree 4  
   - Strongly Agree 5

4. When you discover that students have a misconception about a concept, the best way to correct it is to provide them with the correct information.  
   - Strongly Disagree 1  
   - Disagree 2  
   - Undecided or Neutral 3  
   - Agree 4  
   - Strongly Agree 5

5. Novice and experts tend to organize content knowledge in a similar and logical manner.  
   - Strongly Disagree 1  
   - Disagree 2  
   - Undecided or Neutral 3  
   - Agree 4  
   - Strongly Agree 5

6. If you teach concepts sequentially and effectively, there is no need to explicitly make connections between them.  
   - Strongly Disagree 1  
   - Disagree 2  
   - Undecided or Neutral 3  
   - Agree 4  
   - Strongly Agree 5

7. Mastery of content within a domain is an asset when it comes to helping novice learners develop mastery.  
   - Strongly Disagree 1  
   - Disagree 2  
   - Undecided or Neutral 3  
   - Agree 4  
   - Strongly Agree 5

8. When students possess “positive outcome expectancies” (believe they will succeed), it is not necessary to consider...
Moving Faculty towards Learning-Centered Teaching

Georgia Southern University

Judith Longfield (Teaching-Learning Center)
Hsiu-Lien Lu (Education)
Melissa Gayan (History)
Ellen Hamilton (Nursing)
Nathan Palmer (Sociology)
Kevin Psonak (Writing)
Diana Sturges (Health & Kinesiology)

Longfield
Today’s Agenda

- Teaching-Learning Beliefs
  - Teaching-Learning Paradigms
  - Teaching Environments

- How Are Faculty Trained on Your Campus?

- The Teaching Academy Story
  - “Growing” Participation
  - Learning-Centered Curriculum
  - How Were Data Collected?
  - Changes in Beliefs AND Practices

- Let’s Hear from the Participants

- FLEX: Will This Work on My Campus?

- Your Questions
# Teaching Paradigms

<table>
<thead>
<tr>
<th></th>
<th>Teaching Centered</th>
<th>Learning Centered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Deliver instruction</td>
<td>Produce learning</td>
</tr>
<tr>
<td>2.</td>
<td>Transfer knowledge from teacher to student</td>
<td>Discovery &amp; construction of knowledge</td>
</tr>
<tr>
<td>3.</td>
<td>One teaching style</td>
<td>Multiple teaching styles</td>
</tr>
<tr>
<td>4.</td>
<td>Time held constant; learning varies</td>
<td>Learning held constant; time varies</td>
</tr>
<tr>
<td>5.</td>
<td>Promote recall</td>
<td>Promote understanding</td>
</tr>
<tr>
<td>6.</td>
<td>Faculty are lecturers</td>
<td>Faculty are designers of learning environments</td>
</tr>
<tr>
<td>7.</td>
<td>Learning is competitive &amp; individualistic</td>
<td>Learning is cooperative &amp; collaborative</td>
</tr>
</tbody>
</table>

# Teaching-Learning Beliefs Inventory

**Directions** Circle the appropriate number to indicate the degree to which you agree or disagree with each of the following statements:

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<td>5. Novice and experts tend to organize content knowledge in a similar and logical manner.</td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Teaching Environments

What does teaching look like on your campus?

1. Students collaborating.
2. A classroom setting with students and a teacher.
3. A math class with equations on the board.
5. A lecture hall filled with students.
6. A mobile phone displaying a presentation.

Longfield
In which classrooms are students learning the most?
How Are Faculty Trained on Your Campus?

Turn to a neighbor and explain . . .

- How do faculty learn about effective pedagogical practices on your campus?
- Is there training for new instructors before they teach?
- Are there workshops throughout the year? When? How often? How long? Food?
- Are workshop series offered—multiple sessions with links between them?
- Are faculty paid to attend?

~ 2 minutes ~
“Growing” Participation

- **July 2010 STEM**—7 three-hour sessions - 7 new & 7 non-tenured STEM + 5 nursing faculty - new STEM faculty paid by college

- **Spring 2012 Pilot**—8 two-hour sessions - 17 faculty & TAs - 6 dropped - day/time set by Center - no paid

- **Spring 2013**—8 two-hour sessions - Monday (11) & Thursday (14) - day/time set by poll of potential participants - no paid

- **Spring 2014**—8 two-hour sessions - Wednesday (12) & Thursday (17) - day/time set by poll of potential participants - no paid

*Longfield*
Teaching Academy Goal and Learning Outcomes

**Academy Goal.** The goal of the Teaching Academy is to expand your pedagogical knowledge and increase your ability to design and teach learning-centered courses so that ALL students can learn course content, concepts, skills and dispositions.

**Academy Learning Outcomes.** Upon completion of the Teaching Academy, you will be able to:

1. Establish learning-centered objectives and communicate them to students in your syllabus.
2. Determine whether students are meeting those objectives using a variety of assessment strategies.
3. Use pedagogical research findings to plan courses, assignments and assessments that actively engage all students in the learning process.
4. Modify your teaching strategies in order to improve student learning.

**Weekly Learning Outcomes**

**Week 1 Introduction to Learning-Centered Teaching**

1. Define learning-center teaching and become mindful of myths associated with it.
2. Explain how to minimize the concerns of others related to changes in teaching methodology.

**Week 2 Planning for Active Learning**

1. Recognize the role of preconceptions and misconceptions in learning.
2. Identify the differences between novice and expert knowledge organization and connections.

**Week 5 Creating Collaborative Learning Communities to Facilitate Learning**

1. Predict diverse students’ reactions to the climate in a variety of classroom settings.
2. Evaluate a variety of Collaborative Learning Techniques (CoLT) and select ones appropriate in a specific discipline.
3. Define dualism, multiplicity and relativism.
4. Explain whether Chickering’s Model of Student Development or Perry’s Theory of Development is more useful in designing...
Investments & Return

Participant Investments

- Read *How Learning Works* – Reading Guides
- Work on a target course
  - Syllabus
  - Use/report on a CAT
  - Investigate disciplinary misconceptions
  - Lesson plan
- 16 hours of active “seat” time
  - Case studies & simulation (CoLTs)
  - Grade an essay question
  - Peer feedback
  - Reading Reviews – jigsaw, concept maps, pictorial summary, readiness assessment test (RAT), analyze quiz, working definitions, connect content to YouTube video
- Supply food
Spring 2012 “This is too much work. How do I know I’m getting through to folks? What is my reward?”

Longfield
How Were Data Collected & Analyzed?

- Pre- & post-Teaching-Learning Beliefs – $t$ test
- Semi-Structured Interviews – constant comparative approach
- Classroom Observations – tabulation
## Significant Results

<table>
<thead>
<tr>
<th>Survey items</th>
<th>PRE-SURVEY</th>
<th></th>
<th>POST SURVEY</th>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The most important role of the instructor is to explain course content.</td>
<td>3.28</td>
<td>.873</td>
<td>.175</td>
<td>2.65</td>
<td>1.103</td>
<td>.221</td>
<td>-3.34</td>
</tr>
<tr>
<td>Student achievement in a course is the responsibility of the instructor.</td>
<td>2.38</td>
<td>.789</td>
<td>.158</td>
<td>2.87</td>
<td>.971</td>
<td>.194</td>
<td>3.34</td>
</tr>
<tr>
<td>Increased instructor effort in teaching produces no change in students' understanding.</td>
<td>1.79</td>
<td>.686</td>
<td>.137</td>
<td>1.48</td>
<td>.489</td>
<td>.098</td>
<td>-2.16</td>
</tr>
</tbody>
</table>

*But would participants maintain these belief changes long term? Would they change & align teaching practices to these beliefs?*
Interview Findings

- Thinking from a student perspective
- Shifting from teaching to learning centered thinking
- Adopting new attitudes forwards teaching & learning
- Affirming previous effective teaching practices
- Reducing instructor isolation
## Observed Practices

### Teaching Behaviors

<table>
<thead>
<tr>
<th></th>
<th>Teaching Behaviors</th>
<th>Observed</th>
<th>Observed with plus</th>
<th>Not observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Instructor clearly communicates the purpose of class session and instructional activities.</td>
<td>6</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Instructor uses concrete examples and illustrations that clarify the material.</td>
<td>4</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>3.</td>
<td>Instructor uses a variety of activities to ensure all students are engaged.</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4.</td>
<td>Instructor challenges students to think analytically.</td>
<td>4</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>5.</td>
<td>Instructor uses activities in class to determine whether students understand course material.</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>6.</td>
<td>Instructor fosters student-to-student interaction.</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td>Instructor links new material to previously learned concepts.</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8.</td>
<td>Instructor uses visuals and handouts where appropriate to accompany verbal presentation.</td>
<td>6</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9.</td>
<td>Instructor requires students to be active (e.g., complete task, apply concepts, or engage in discussion instead of passively listening).</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>10.</td>
<td>Students are comfortable asking questions.</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

(N=7)  

Lu
Let’s Hear from the Participants

Melissa Gayan (History)  Ellen Hamilton (Nursing)
Nathan Palmer (Sociology)  Kevin Psonak (Writing)
Diana Sturges (Health & Kinesiology)

• What was your experience in the Teaching Academy?
• How did participation in the Teaching Academy impact your thinking about teaching?
• What strategies did you learn about during the Teaching Academy that you are using in your teaching?
FLEX: Will This Work on My Campus?

Fitting the Pieces Together—Key Questions

If your campus already has extended pedagogical training

- Given the specifics on your campus, how might your program evolve?
- What challenges do you face, and how are you facing them?

If your campus does NOT have extended pedagogical training

- Given the specifics on your campus, what would it take to launched an extended training program?
- What obstacles might you face?
- How could you address these obstacles?
Faculty-centered learning is key to promoting changes in beliefs and practices.
Thanks! Gracias! Merci!

“Teaching without learning in just talking.”
Good luck answering key-question puzzle pieces as you expand your teaching-learning world!

Be sure to sign the list if you want the PPTs or paper.

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