Using Community of Practice Groups to Promote Reflection Among SI Leaders

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We will explore the theory and application of using communities of practice to promote reflection in a Supplemental Instruction program.

Topics include:

- Setting and context
- Communities of Practice
  - What they are and how they promote learning
  - Application at Clemson
- Reflection
  - What it is and why it is important
  - How to teach students to engage
- Reflective practice in Clemson’s SI program
  - Observations
  - Self-Assessments
Setting and Context

Clemson University

- Land-grant university founded 1889
- 2012 Undergraduate head counts: 16,931 (Total) and 3,298 (Freshmen)
- Strong STEM programs
- Most freshmen live on campus; most upper class students don’t
- Bridge to Clemson program with Tri-County Technical College

Supplemental Instruction/PASS Program

<table>
<thead>
<tr>
<th>2013-14</th>
<th>Courses</th>
<th>Sections</th>
<th>Individuals</th>
<th>Visits</th>
<th>SI Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>18</td>
<td>164</td>
<td>4215</td>
<td>25,068</td>
<td>160</td>
</tr>
<tr>
<td>Spring</td>
<td>18</td>
<td>122</td>
<td>3040</td>
<td>18,046</td>
<td>110</td>
</tr>
</tbody>
</table>
Previous organization – Biweekly meetings

135-150 SI Leaders met in biweekly meetings with three or four different time slots to maximize chances that everyone could attend one session.

- Leaders did not know each others’ names…
- …or which other leaders were supporting the same course.
- 40-50 leaders in each meeting made everyone feel anonymous and disconnected.
- Addressing programmatic content (i.e. new collaborative activities) was difficult with so many people and such variety (i.e. “We can’t do that in sessions for XXX”).
- Meetings devolved into strictly administrative content.
- Impossible to be “high contact” – they outnumbered me!
- Nobody was happy with the situation.
Previous organization - Mentors

Six outstanding SI Leaders served as mentors.

- Attended biweekly meetings and took attendance. May have participated occasionally in the meetings.
- Provided administrative support during evenings that SI was held – paperwork, unlocking classrooms, assisting students looking for specific sessions.
- Meetings functioned like a club – the “chosen” ones.
- Recruitment was self-perpetuating: Mentors identified candidates whom they invited to talk with them about filling openings.
Community of Practice

Group of people organized around a common purpose that creates a rich learning environment that deepens knowledge and expertise through shared practice and regular interaction.

- Learning is situated in a particular context and mediated through social interaction
  - What we do
  - How we relate
  - Defined roles and expectations
- Facilitates knowledge transfer, especially tacit knowledge

Social Modes of Learning in Communities of Practice

- **Community:** learning as belonging
- **Identity:** learning as becoming
- **Practice:** learning as doing
- **Meaning:** learning as experience

Dimensions of Practice in Communities of Practice

- **Joint enterprise**
  - Holding SI sessions
  - Sharing worksheets

- **Mutual engagement**
  - Peer observation
  - Sessions with partners

- **Shared repertoire**
  - Expectations within a course
  - Session plan
  - Learning outcomes
  - Collaborative activities

Current Organization - Community of Practice (CoP)

• “SI for SI Leaders” – “Common solutions for common issues”
• SI Leaders organized into 9 groups and facilitated by previous SI Leader
  • Accounting
  • Engineering & Physics
  • Chemistry and Anatomy (2)
  • Business Calculus (3)
  • STEM Calculus (2)
• Topics have included:
  • effective learning strategies
  • collaborative activities that work best for specific course and topics
  • insights from peer observations
  • upcoming exams and review sessions
  • difficulties students face with material
  • mentoring for new leaders
Current Organization – CoP Leaders

Nine outstanding SI Leaders serve as Community of Practice Leaders, or “SI Leaders for SI Leaders.”

- Meet as a group to discuss SI program effectiveness, discuss potential initiatives, provide feedback, discuss common reading – leadership development in collaborative setting.
- Provide administrative support during evenings that SI was held – paperwork, unlocking classrooms, assisting students looking for specific sessions.
- Facilitate CoP meetings roughly every two weeks.
  - Meetings model effective SI sessions or at least use collaborative activities.
  - Some administrative matters are discussed.
  - Most of the attention is on theory and practice, mentoring, goals.
- Recruitment is handled professionally: CoP Leaders revise application, develop interview questions, agonize over decisions.
Reflection

• “Active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends.” -- John Dewey (1910/1933) How we think.

• “A meaning-making process;
  A rigorous way of thinking;
  Thinking that is shared with and understood by others;
  Thinking that is guided by an attitude of ‘whole-heartedness, directness, open-mindedness and responsibility.” -- Carol Rodgers, quoted in Lane, R. et al (2014) Quality reflective practice in teacher education. Reflective Practice

• Related to inquiry
• Can have a critical component
• Necessary for learning from one’s own experiences
## Two Dimensions of Reflection

<table>
<thead>
<tr>
<th></th>
<th><strong>Breadth</strong></th>
<th><strong>Depth</strong> (more teachable and open to improvement)</th>
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<tbody>
<tr>
<td><strong>Key idea</strong></td>
<td>The extent of the practitioner’s concerns</td>
<td>The depth of the thinking process</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td>Experiences recalled &amp; identified</td>
<td>The way the experiences are viewed</td>
</tr>
<tr>
<td><strong>Range from</strong></td>
<td>Pedagogy/method to social/cultural domains</td>
<td>Observing/describing to reasoning/higher thinking</td>
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<tr>
<td><strong>Form</strong></td>
<td>Reflection moves outward from self to students to all</td>
<td>Cyclical process from action/experimentation to another cycle beginning with observation/description</td>
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<tr>
<td><strong>Development</strong></td>
<td>Increasing professionalism</td>
<td>Extent of higher-order thinking</td>
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## Taxonomies of Depth of Reasoning

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<tbody>
<tr>
<td>Description</td>
<td>Reporting</td>
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<tr>
<td>Personal opinion</td>
<td>Responding</td>
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<td></td>
<td>Relating</td>
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<tr>
<td>Linking</td>
<td>Reasoning</td>
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<tr>
<td>Critical bridging</td>
<td>Reconstructing</td>
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In Linking and Reasoning, connections are made between experience and knowledge from literature, and deep understanding is being cultivated.

In Critical bridging and Reconstructing, learning is made more generalized and internalized to create a personal theory of practice or to inform responses to future situations.

The Importance of Reflection

Enables the person to make connections with previous experience or with theoretical perspectives, learned techniques, etc.

Enables deeper thinking about the practice: what to do in future situations, development of a personal theory or practice


Transformative growth


Development in expertise necessary for growth in future professional practice and immediate wholistic benefit in academic performance as current students – “conceptual expansion”

Reflection is Socially-Mediated

- “Reflection must be recognised [sic] as an activity that can only be developed in conducive social and emotional circumstances” (Convery, 1998)
- “…importance of discussion with trusted colleagues to help new teachers reflect on their practice.” (Simon et al, 2011)
- “Almost half of surveyed part-time [instructors] wanted more ‘social learning in the form of guidance from a mentor, and nearly 40% wished there had been more conversations with…colleagues”” (Knight et al, 2006)


This is also the message from the CoP and SI Leaders in Clemson’s program: more discussion in class, more reflection conversations in CoP meetings, more mentoring by current SI leaders in training.
# SI Leader Observation Form

Name of Leader: ____________________ Date: ________  Room: ________  Course: ____________  # of students present: ________

<table>
<thead>
<tr>
<th>Opening, Main, or Closing activity?</th>
<th>Concept / Topic</th>
<th>Learning strategy or collaborative technique</th>
<th>Appropriateness/Effectiveness</th>
<th>Diagram the room and pattern of interactions</th>
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Comments:

Comment on the quality of the interactions among the Leader and the students:
## Observations

<table>
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<tr>
<th>Area for improvement</th>
<th>Meets expectations</th>
<th>Excellent mastery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asks higher order questions on Bloom’s Taxonomy</strong></td>
<td>Session plan and redirected questions are mostly in the knowledge and comprehension levels.</td>
<td>Activities progress from understanding through analysis and higher.</td>
</tr>
<tr>
<td><strong>Effectiveness of asking questions -- redirecting, wait time, checking for understanding</strong></td>
<td>Leader answers all questions; asks only “do you understand” questions; redirects only knowledge or comprehension questions; redirection suggests Leader doesn’t know the answer; doesn’t wait long enough before asking another question or supplies the answer; doesn’t check for understanding often enough or ineffectively</td>
<td>Balances answering questions with redirecting back to the group; asks if others can answer before offering hints; uses wait time to give participants an opportunity to think; uses questions well to check for understanding.</td>
</tr>
<tr>
<td><strong>Encourages passive students to participate</strong></td>
<td>Participants remain isolated; no repeated attempt to draw quieter students into the activities; leader stands at the board, claiming that space</td>
<td>Provides opportunities for everyone to volunteer or ask questions; calls on or urges everyone to participate; moderates participation of those always willing to share; uses fun activities and good-spirited encouragement.</td>
</tr>
<tr>
<td><strong>Uses collaborative activities</strong></td>
<td>Leader does most of the writing at the board and lectures or re-teaches; students never get into groups; diagram of interactions would show lines to/from Leader rather than from participant to participant.</td>
<td>Proficiently uses standard collaborative activities; uses at least 2 activities; brings session to a cohesive closing that reintegrates the groups.</td>
</tr>
<tr>
<td><strong>Adapts prepared session plan as appropriate for participants’ needs</strong></td>
<td>Drops session plan to address Q&amp;A; makes little or no attempt to engage students in conceptual practice beyond the surface questions; adheres to plan when participants clearly seek assistance with different topics.</td>
<td>Leader diverges appropriately but also could return to the plan; adapts collaborative activities to size of group; addresses conceptual ideas beyond Q&amp;A.</td>
</tr>
<tr>
<td><strong>Follows a participant-centered model rather than a Leader-centered model</strong></td>
<td>Leader directs aspects of session such that participants are passive; leader provides most of the explanations; participants work less than 50% of examples or dictate steps to leader at board.</td>
<td>Leader functions as coordinator of learning activities, negotiates session content with participants; urges participants to learn together and provides explanations only when they are stuck; at least 50% of examples are worked by participants.</td>
</tr>
</tbody>
</table>

The SI Leader and Observer have agreed to the following goals:

1. 
2. 
3. 

Observer name: ______________________________________

“The Observer discussed this observation with me.” Signature of Leader: ______________________________________ Date: ___________
Observations in CoP meetings

- Peer observations had been documented by writing a paragraph response used as an “entry ticket” to the CoP meeting.
- CoP Leaders asked that the observation form be used in peer observations to demystify the observation process and so the rubric would provide a framework for illustrating what a good session entails.
- Peer observations began to include informal summary conversations afterwards, with leaders identifying goals with their peers, not only with the more formal CoP leader observation.
Self-Reflection Activities Throughout SI Program

Question on session plan:
“In what way was the session successful/unsuccessful? What would you keep the same/change?”

Questions on re-hire application:
“What were your goals as an SI leader, and how well did you meet them?”

Assignments in SI training course:
1. Discuss how well SI Leader used foundational techniques in your peer observation. What did you learn that can help you be a better leader?

2. Review course objectives, session topics, and assignments. Have you improved as an SI Leader? Explain and support assertion with references to specific course readings, class topics, and assignments.
Self-Assessment Questionnaire for SI Leaders in CoP

Fall 2013 version focused on effective practices in sessions. Discussion followed.

- Planning and conducting the session
- Reflecting on best practices and recent performance
- Identifying areas for improvement.

Spring 2014 version focused on learning strategies that deepen SI Leaders’ learning, improve their practice, and relate to my current research. Discussion followed.

1. Collecting and documenting learning
2. Self-regulating behaviors
3. Reflecting critically
4. Integrating learning across contexts
5. Collaborating for learning

Self-Assessment Questionnaire for CoP Leaders

Interesting conversation resulted from the CoP leaders’ completing their version.

They struggled to understand some of the questions. (next slide, for example)
  • The struggle frustrated them…
  • …but served as a catalyst for deeper thinking.

Their debriefing conversation began with expressing their frustration but turned energetic and fruitful after they were asked “What question do you wish had been asked?”
  • They want to be more involved in training
    • More authentic practice of SI fundamentals
    • Balance between SI model and focusing on learning
    • Awareness of challenges and how to adapt
    • Learning strategies/study skills
  • They want to participate in writing their own self-assessment questions.
Self-Assessment Questionnaire for CoP Leaders

1. Think about your role as a CoP Leader and reflect on the learning objectives that are explicit or implicit within the program. Then select the statement that most closely matches your thoughts about learning objectives related to the SI program, and add/edit/revise any wording, or develop a list that helps you more fully communicate your thoughts.

c) “I haven’t explicitly put language to any learning objectives beyond thinking that ‘SI Leaders facilitate participants’ mastery of course content and development of effective study strategies,’ but I feel like I have had thoughts in the back of my mind, and with a few minutes to reflect, my thoughts about the matter would include something like this:
With regard to myself as a CoP leader:
With regard to my CoP as a group:
With regard to individual SI Leaders:
With regard to the participants in sessions:
Self-Reflection in CoP Leader Meeting (from minutes)


-reflective dialogue: like unpaid therapy
-how we should model our CoP meetings? open up the floor for reflective dialogue
-try to enforce reflecting on the session
-everyone needs to be open minded to constructive criticism and to actually participating in it
-we should
-30 second convo when they turn in their session plan may spark something
-reflective conversation after observations (you tell me what you think)
-how do we convey the importance of reflection to our leaders? TALK with them. verbal reflection is just as good
-write down half page about their most recent SI session and discuss with a partner and get feedback

CoP Meeting Points:
-ice breaker
-reflection activity: write down half page about their most recent SI session and discuss with a partner and get feedback
-Sam’s general announcements
Summary Thoughts

- Reorganizing into CoP groups improved group identity and learning.
- CoPs promote leadership throughout the program.
- Discussing peer observations in CoP meetings has improved leader performance, we think.
- Leaders become engaged in reflection in CoP meetings.
- Learning happens as SI and CoP Leaders consider the self-assessment questions.
- Reflection is a powerful strategy for deeper learning.

Thank you for attending! What questions do you have?

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