

Continuous Improvement of Teaching via Peer and Administrator Classroom Observation

Dr. Ekaterina Koromyslova, South Dakota State University

Ekaterina Koromyslova, an Assistant Professor in Operations Management, has PhD in Economics and MS in Business Economics and Management. She has work experience in industry as an analyst-consultant of manufacturing enterprises and managerial work experience as the deputy head of a customer service department in STS Logistics, which is leading 3PL full service provider in the Russian and CIS logistics market.

Dr. Teresa J.K. Hall, South Dakota State University

Hall is currently professor and head of the Construction and Operations Management department at South Dakota State University.

Prof. Byron G. Garry, South Dakota State University

BYRON GARRY is Associate Professor and Undergraduate Program Coordinator in the Department of Construction & Operations Management in the Jerome J. Lohr College of Engineering at South Dakota State University. He has been a member of ASEE since 1998. As SDSU ASEE Campus Representative, his goal is to help fellow College of Engineering faculty to be reflective teachers.

Continuous Improvement of Teaching via Peer and Administrator Classroom Observation

Abstract

Continuous improvement process can be applied to different areas of higher education, specifically improvement of faculty teaching. Anand, et al.¹, defined continuous improvement as "a systematic effort to seek out and apply new ways of doing work, which is actively and repeatedly making process improvements." In this light, the lead author has used a triangulation method to improve their teaching effectiveness by being observed in the classroom at the same time by the department head and a peer observer, over several semesters. The paper will frame the current literature on teaching evaluation for growth and development, examine the faculty member's, the peer's, and the administrative observer's perspectives, and discuss how this process has led to continuous improvement of teaching.

Keywords

Continuous Improvement, Peer Observation, Administrator Observation

Introduction

Continuous improvement of teaching is a core concept in higher education. Competition for students among different higher education institutions and within campus programs reinforces the need in the high quality instructors. Anand, et al.¹, defined continuous improvement as "a systematic effort to seek out and apply new ways of doing work, which is actively and repeatedly making process improvements." The continuous improvement approach enables faculty to adapt their teaching style to students' needs and to develop a set of teaching methods to create a challenging learning environment, meaningful and transformative learning experience, and supports development of students' qualities which are most valued for their professional growth. This is especially important for new instructors, tenure-track faculty, and international faculty in their first-time teaching experiences in the United States. There are a variety of challenges for international faculty in the American classroom including differences in higher education culture, effective instructional approaches, and students' motivation. This paper presents an advanced approach to faculty development which promotes continuous improvement of teaching. The approach - joint peer and administrator observation of teaching - was developed and practiced in the Construction and Operations Management (COM) Department, South Dakota State University (SDSU). The case study presented in this paper demonstrates how application of engineering management and quality improvement tools, such as Kaizen and Plan-Do-Check-Act (PDCA) cycle, along with an enhanced approach to our commonly used teaching observation process contributed to improved instructor's outcomes.

Formative versus Summative Teaching Observation

Observations of teaching can take the form of summative or formative evaluation, which serve different purposes for the faculty member being observed. The Iowa State Center for Excellence in Learning and Teaching² has published a literature review, and statement of best practices, in

summative peer evaluation of teaching, that is, where that evaluation plays a role in personnel decisions such as promotion and the granting of tenure.

The Iowa State Center lists these guidelines that should be considered for summative teaching evaluation:

- Summative and formative evaluations should be performed by different people;
- Summative evaluations should include a comparative dimension, assessing a teacher's work in relation to that of his or her colleagues;
- Summative evaluators should not be chosen by the teacher being evaluated, but should instead be elected or appointed;
- Summative evaluators should be colleagues of equal or greater rank in a department or discipline the same as or similar to that of the teacher being evaluated;
- To ensure sufficient reliability, a summative evaluation should be the collaborative product of a committee of at least three evaluators;
- Summative evaluations should occur at prescribed intervals that the faculty knows in advance, most likely as part of mandatory reviews for contract renewal, review for tenure, and post-tenure reviews.

Improving teaching using classroom observation can also be accomplished using formative assessment, which is an on-going concern in the engineering education field. Summarized here are recent reports, from three different sources over the last two years of ASEE Conferences, on using peer faculty observation on a formative basis.

Clausen³ described the voluntary Teaching Triangles method used within a department as formative assessment. In this method three faculty members, all from the same department, took turns evaluating and providing feedback to each other throughout the year. The process consisted of three parts: a classroom observation, feedback on course materials (syllabus, forms of assessment such as exams and homework assignments, etc.), and a reflection meeting with all three members of the triangle to provide feedback and opportunities for discussion. They found that the biggest benefit of their process was that faculty valued the individualized feedback they received from the other members of their Triangle, as well as the observations they made of their colleagues' teaching. The process fostered interactions in a way that would not have occurred without the program, and faculty used the Teaching Triangles to devote time to focus on improving their teaching.

Hahn and Migotsky⁴ described using formative classroom observations for new faculty, a practice for many years at their university. Their peer observation process involved two observers for each class visit. One observer was an instructional development specialist with a background in education and/or communication. The second observer was either another engineering faculty member or an engineering student. In order to avoid a potential conflict of interest, and to increase everyone's comfort level, this second observer was always from a department other than the home department. The two observers brought different types of expertise: pedagogical knowledge and – to some extent – content knowledge and direct experience in a similar engineering classroom. Based on their experience and the feedback they have received about the peer observation program, they consider it to be successful in

accomplishing the goals of helping new faculty in practical ways, and of creating a climate of openness toward teaching in the College.

Kunberger et al.⁵, described using peer assessment as a part of STEM faculty learning communities. Observation of faculty was conducted on a one-on-one basis to ensure compatible schedules between both individuals. Observers were asked to complete an observation worksheet that provided feedback to the individual they are observing, and were also asked to reflect on insights gained by observing and how that influenced their own teaching. Participants used sections of the RTOP (Reformed Teaching Observation Protocol) as a guide to providing feedback to their partners. Among the informal results from the learning community was that peer-to-peer observation began as an anxiety ridden experience, but at the end participants developed a comfort with, and respect for, the peer observations process.

All three of these formative assessment examples emphasize the collegiality of the process, with the goal of bringing emphasis to the teaching process for faculty, not as a method of summative evaluation for use by administrators.

SDSU provides training and certification for faculty who wish to become a certified peer observer. This training involves reading of scholarly articles, several hours of presentations on how good peer evaluation works, and has the trainee observe several example presentations. The SDSU Center for Teaching and Learning (CETL) also has a staff of experienced observers that provides formative peer reviews. They currently perform 250 classroom observations per academic year (CETL Email Newsletter, 17 January 2017).

These two forms of evaluation should be practiced in conjunction with one another: between summative evaluations, an instructor should have the opportunity to use formative evaluations to hone his or her teaching skills. The general consensus in the field is that for there to be fairness and effectiveness in the observation process, each type of evaluation should be separate from the other².

The COM Department has taken portions of these suggestions and used a combination of both summative and formative teaching observation, in the continuous improvement of teaching process.

The Advanced Approach

The COM Department has a long tradition of focusing on quality teaching as most faculty have an instructional assignment rather than a research appointment. Similarly, the institution has invested significant resources to enhance teaching excellence and supports faculty members' efforts to continuously improve their teaching. The SDSU has placed an emphasis on peer observation of teaching in recent years, and has based their process on work from Barrick⁶, who presented it to the university faculty in 2010 at a campus development conference.

In response, the department implemented Barrick's observation and feedback method and modified it over time to support department and university performance standards for faculty teaching (Figure 1). This process is based on PDCA cycle principles. While Barrick's model is

suitable for most peer-to-peer observation situations, the process did not incorporate administrator feedback at the formative stage, i.e., feedback during the academic year rather than the traditional summative feedback in the annual evaluation. This was departure from Barrick's conceptual framework.

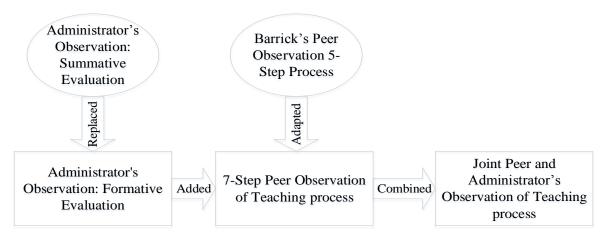


Figure 1. Evolution of the observation approach in the Department

As noted, the first modification to Barrick's process was to use the administrator's formative evaluation of teaching performance during the semester. This change reinforced the expectation for continuous improvement due to the nature and timing of administrator feedback. One Kaizen or Lean principle is "all employees' involvement" which means participation in the improvement process by all stakeholders from the department head to the instructors. Thus, the next change was to pair peer observation along with administrator's observation to strengthen and validate formative feedback during the semester.

This method of collecting observational data from two different perspectives, peer versus supervisor, addressed some concerns about reliability of the data. Both observers used an observation template to frame results of classroom activities, instructor behavior, and student interactions. The evaluative nature of the process also meant that both observers provided independent feedback to the faculty member under observation. Longitudinal data across four semesters and five different courses provided context for assessment of teaching methods, efficacy, and relevance in content.

Adoption of Barrick's peer observation five-step process and adaptation of his process to department performance standards led to implementation of a seven-step peer observation process for the department. See Appendix 1 for an overview of the process (Figure 5), including forms used by the peer (Figure 6) and supervisor (Figure 7). These two additional steps to Barrick's methodology (post-observation dialogue and observation write-up) serve to "close a loop" which is a crucial part of continuous improvement. The outcome is a combination of both peer and administrator observations – joint observation of the same class session. The framework of the updated approach is shown in Figure 2.

The enhanced joint observation approach is a triangulation method to improve teaching effectiveness via independent feedback from classroom observations by the department head and

a faculty peer observer. After the observation session, the instructor, a peer, and the department head meet together to provide feedback/self-reflection and to discuss different visions of the same situation.

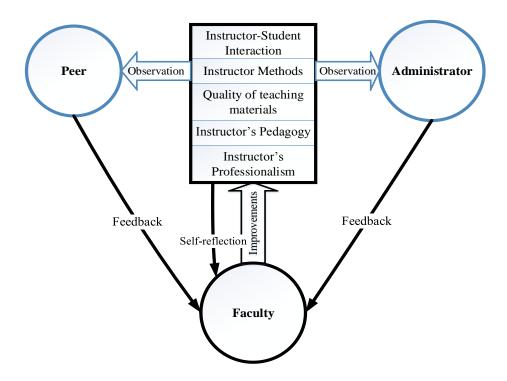


Figure 2. Joint observation framework

Under Barrick's process, peer observation and the department head observation processes are discrete and results are not purposefully coordinated. However, the COM department process of simultaneous observation of a class session and the post-session discussion benefits the instructor as it is comprehensive feedback on tactical (short term intervention) and strategic (long term progress) levels. This comprehensive feedback supports improvement of teaching and informs which steps should be taken for the improvement (Table 1). In this study, the data consists of feedback to the new faculty member from the experienced peer and department head observer over four semesters of classroom observations.

The triangulated observation approach supports the core principles of continuous improvement: validated processes (faculty self-reflection and observer's feedback), identification and reduction of waste (inefficient usage of class time, instructor's effort, materials, and technologies), and focus on incremental, continual steps for improvement. These principles, combined with teamwork between the instructor, peer, and administrator, resulted in faster and more valuable improvements in teaching, compared to a single person doing a teaching observation, due to its synergetic effect. This approach accelerates an instructor's teaching improvements because the feedback from the process is comprehensive and it highlights all aspects of teaching performance from different perspectives. This serves as a solid foundation for a teaching improvement plan.

Teaching Component	Observed by	What observed/ discussed
Instructor- Student Interaction	Peer	 Student focus on the class content vs. distraction; Even distribution of instructor's attention between all students; Eye contact with the audience
	Administrator	 Student engagement in class activities; Student perception of the instructor
Instructor Methods	Peer	 Distracting actions/habits of the instructor; Words-fillers; Breaks during class session; Velocity of material coverage
	Administrator	 Habit of asking and answering questions; Tone of interaction with students by the instructor
Quality of	Peer	 Alignment of the materials with learning objectives for the topic Clarity of the materials presented to students (lecture notes, slides); Relevance of materials presented
Teaching Materials	Administrator	 Alignment of materials with the program goals and objectives; Indications of instructor's effort to prepare the material and its value for students' learning;
Instructor's	Peer	 Broad context of the materials as it relates to the profession How well students grasp the material taught; How well the instructor uses teaching methods chosen for the class session
Instructor's Pedagogy	Administrator	 Relevance of teaching methods to the topic and the course overall; Effective and efficient usage of classroom technologies; Instructor's awareness of innovative teaching methods
Instructor's Professionalism	Peer	 Instructor's reaction on different (unusual, unpleasant) situations/questions; Instructor's approach to resolving problems occurred during the class session; Instructor's preparedness for the class session
	Administrator	 Instructor models behavior of a professional in the field; Knowledge of material taught and incorporation of professional experiences in class; Interactions with students.

Table 1. Continuous improvement of teaching via class observations

Case Study

The authors were also the primary participants in the study: the instructor, the faculty peer, and the administrator. In fall 2013, the instructor joined the department on a tenure-track faculty appointment. While the instructor had previous teaching experience in another country, this was the first time the instructor had taught in the United States. The faculty peer had been trained as a peer observer and had over 20 years of university teaching experience. The administrator had over 20 years university teaching experience and was the direct supervisor of both the instructor and the peer observer.

The authors practiced all three types of observations: peer observation, department head observation, and joint observation in the period 2013-2016 for the following courses: MNET 460

Manufacturing Cost Analysis, OM 603 Design for Production, OM 425 Production and Operations Management, OM 463 Supply Chain Management, and OM 240 Decision Making Processes. The advanced approach of joint observation was initiated in 2014 in the department for the purposes of faculty development, to evaluate the effectiveness of our adaptation to Barricks' method, and to validate our model. A summary of observation type and semester is presented in Table 2. Feedback from each type of observation was discussed, and the following steps were taken by the instructor based on suggestions on content delivery, teaching approach, and student interaction recommendations. There were three approaches to improvement.

At the tactical level:

- 1) Changing/updating teaching materials to fix the observed gaps;
- 2) Subscription to Faculty Focus publications⁸ to gain insight of how other professors address different types of issues in the classroom and in a teaching process overall.

At the strategic level:

- 1) Implementation of innovative teaching methods (case method as active learning problem-based technique⁹, elements of inductive teaching);
- 2) Aligning the teaching materials with the requirements and trends of leading associations in the field (e.g., APICS for OM 463 Supply Chain Management class).

Both levels:

- 1) Participation in specific professional development activities and workshops (the SDSU Center for the Enhancement of Teaching and Learning (CETL) events, Campus-based ASEE Best Practices discussions, conferences and webinars on active learning pedagogy, the National Effective Teaching Institute (NETI) workshop);
- 2) Adoption of research-based effective teaching techniques, use of technology, and emerging pedagogy in the observed classes (flipped class, online games and exercises, simulation software).

To compare the impact of all three approaches on improvement of teaching the authors analyzed IDEA¹⁰ student evaluation of teaching scores for all observed classed using "Learning Objectives," "Excellent Teacher," and "Excellent Course" criteria. The impact of this joint observation approach can be illustrated via interrelationship of the class session observations performed during the period of 2013-2016 (Table 2) and the dynamic of the IDEA evaluation scores for the same period (Figure 3 and Figure 4).

Course	Observations				
	2013	2014	2015	2016	
OM 425		Joint	Department Head		
OM 463		Joint		Joint	
MNET 460	Peer				
OM 603	Department Head				
OM 240			Department Head		

Table 2. Observations performed 2013-2016

Figure 3 presents the IDEA evaluation scores for the courses which were taught three different times: OM 425 in Spring semesters, OM 463 in Fall semesters of 2014-2016 (IDEA results for Fall 2016 are not available yet), and MNET 460 in Fall semesters starting 2013. Joint observations were conducted for the OM 425 and OM 463, and only peer observation was completed for the MNET 460 in 2013. The dynamic of the IDEA scores illustrates an upward trend for OM 425 and OM 463 and an increase across all IDEA scores after joint observation feedback. At the same time, results for MNET 460 show no evidence of stable scores improvement, and are viewed as unusable as the results were only peer observation.

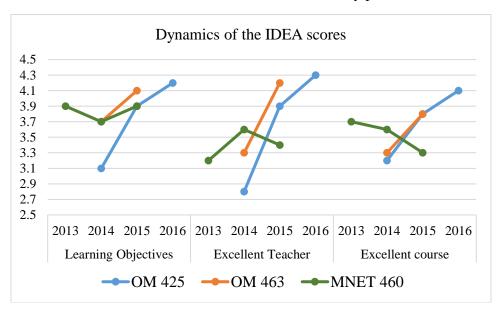


Figure 3. Dynamics of the IDEA scores of the observed classes

Although more improvements in students learning can be expected the next time the course is taught, when the peer and administrator participate in observations, some feedback recommendations can be applied in the same semester. Figure 4 compares the impact of peer observation of MNET 460 class and department head observation of OM 603 class in the first semester which was the first-time teaching these classes in Fall 2013. The chart supports the idea of different levels of improvement: tactical level from peer's feedback and strategic level from the department head's feedback. Thus, recommendations from peer lead to better achieving of specific learning objectives, but students' perceptions of the instructor and the course were better after improvements based on the department head's recommendations.

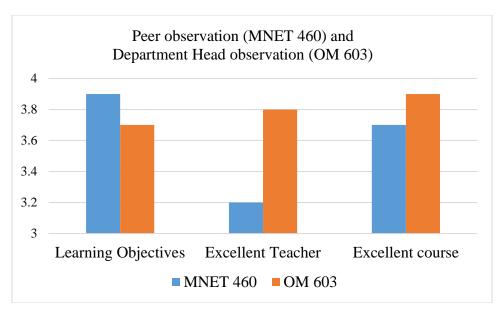


Figure 4. Peer observation and department head observation: comparison of results

Conclusion and Recommendations

The joint observation triangulated method, developed and practiced in the COM department, produced noticeable results in support of continuous improvement of teaching. The conclusion is based on the dynamics of the student IDEA scores measured for the observed classes. It can also be stated that, based on the outcomes of this teaching evaluation process and the perspectives of two seasoned professionals in STEM teaching, the instructor feels that they advanced their teaching effectiveness faster than new faculty who did not have the benefit of this enhanced feedback model.

Although the improved student evaluation scores are evidence of positive change, the statistical significance of the results cannot be evaluated at this point due to small sample size. For future work, when an appropriate sample size for statistical analysis is available, the authors will compare results from the proposed joint observation approach with the results of traditional individual peer and department head observations. This process compounded with peer and administrator interest in testing the hypothesis that an alternative format observational data would inform teaching efficacy is our goal. Nevertheless, achieving these preliminary results, the authors believe that it is important to share this idea of the triangulated observation approach to continuous improvement of teaching. Observed benefits of the approach are:

- Comprehensive feedback on tactical and strategic levels;
- Synergetic effect of achieving better and faster results due to teamwork;
- Complete set of recommendations for multi-facet professional development and improvement of teaching;
- Unbiased evaluation of teaching effectiveness;
- Sharing best practices and experience within the triangular team.

The necessary prerequisites for effective use of this approach are: 1) prioritizing continuous improvement as a crucial component of teaching practices; 2) dedication to the improvement process; and 3) an instructor's open-mindedness to new ideas and to different points of view.

As a result of this approach the instructor received better IDEA scores which indicated a strong upward trend for all three criteria, Learning Objectives, Excellent Teacher, and Excellent Course. The IDEA summary statistics scores moved from "much lower" and "lower" to the "similar" and "higher" percentiles. Another intangible but important criteria are improved self-confidence as an instructor and better relationship with students.

It is recommended to perform the joint observations for every course taught by an instructor to achieve the best results and to assure overall improvement. Although recommendations from the observed classes can be applied to other unobserved courses and can contribute to the instructor's overall professional development, every course has its own specifics. That could be a cause of less successful or slower improvements in these classes.

This joint observation triangulation method, if applied, will be the most valuable for new faculty members in the department, tenure-track faculty, and international instructors whose goal for teaching and learning is their professional development in pedagogy and new technologies in teaching to increase their efficiency as an instructor.

References

- 1. Anand, G., Ward, P. Tatikonda, M., & Schilling, D. (2009). Dynamic capabilities through continuous improvement infrastructure. *Journal of Operations Management* 27:444-461. doi:10.1016/j.jom.2009.02.002
- 2. Iowa State University Center for Excellence in Learning and Teaching. (2017). *Peer evaluation of teaching: Literature review and best practices.* Retrieved from http://www.celt.iastate.edu/teaching/assessment-and-evaluation/peer-evaluation-of-teaching-literature-review-and-best-practices
- 3. Claussen, S. (2016). *Formative peer assessment of teaching*. Proceedings of the 2016 ASEE Conference & Exposition. Paper ID #15913. New Orleans, LA
- 4. Hahn, L. & Migotsky, C. (2015). *Formative classroom observations for new faculty*. Proceedings of the 2015 ASEE Conference & Exposition. Paper ID #12171. Seattle, WA.
- 5. Kunberger, T., Frost, L., & Greene, J. (2016). *Integrating a Faculty Summer Workshop with a Faculty Learning Community to Improve Introductory STEM Courses*. Proceedings of the 2015 ASEE Conference & Exposition. Paper ID #14553. Seattle, WA.
- 6. Barrick, R. (2010). *Peer observation for teaching assessment*. South Dakota State University Faculty Development Conference
- 7. Gall, M.D., Gall, J.P., & Borg, W.R. (2007). *Educational Research: An Introduction*. (8th edition). Boston: Pearson Education, Inc.
- 8. Faculty Focus: Higher Ed Teaching Strategies, Magna Publications. Many articles over several years. Retrieved starting at home page: http://www.facultyfocus.com/
- 9. Koromyslova, E. & Garry, B. (2016). *Problem-based learning in a supply chain management course*. Proceedings of the 2016 ASEE Annual Conference & Exposition. Paper ID #14739. New Orleans, LA
- 10. IDEA Student Rating of Instruction instrument. http://www.ideaedu.org/

Appendix 1. Construction and Operations Management Department Peer & Department Head Assessment Documents

Step	Purpose	Done by	When due	Details
1	Strategy / Goal Setting	Faculty	> 1 week ahead of observation	What are the objectives of this course?
2	Written material for class observation	Faculty – sent to Observer	1 week ahead of observation	What are the student learning outcomes of this class session? What teaching strategies will be used to achieve these outcomes?
3	Pre- Observation Dialogue	Together	2 days ahead of observation	Together decide on "Today I will look for"
4	Observation	Observer	Day of observation	During class record: Time, Specific actions & your reaction, Notes
5	Written Feedback	Observer - sent to Faculty	Day of observation	Report back on: Strengths. Areas to be improved / changes to consider.
6	Post- Observation Dialogue	Together	Within 2 days after observation	What will you focus on for next observation? What do you plan to do differently in the future?
7	Observation Write-up	Faculty	Within 1 week after observation	Record your reactions to keep and review for next observation / class

Figure 5. COM department seven-step formative peer observation process

Instructor Name	Observer Name
Course and Section	Date of Observation

Part 1: Strategy/Goal Setting

More than 1 week ahead of the observation, the faculty to be observed thinks about and writes out for him/herself (this writing does not have to be on this form):

What are the objectives of this course?

What are the student learning outcomes of this specific class session?

What teaching strategies will be used to achieve these outcomes?

What aspects of my teaching do I want feedback on?

Part 2: Written material for class observation

"Understanding the Context"

After completing Part 1, the faculty to be observed should write out answers to these questions in this file and send to the observer one week ahead of the observation:

1) What is the student make-up of the instructor's class?

number of students / grade levels / backgrounds / other

2) What type of technology is used in this class?

distance education / computers / specialized lab equipment / other

- 3) How well does the instructor like the classroom being used?
- 4) What is the instructor's role in this course?

number of times previously taught

primary teaching methods / strategies of teaching

degree of student input

special problems / constraints

5) What type of course is this? How does it fit into the student's overall curriculum?

lecture / activity / seminar / laboratory / other

required / general education / elective / personal interest

developmental / lower division / upper division / graduate

role in degree program (critical / introductory)

length of session / lecture / activities / # of times per week

recent changes in program / course / student outcomes

6) What knowledge, skills, and attitudes does the instructor expect from students?

as a result of the course

as a result of the session / lecture

- 7) What, if any, concerns does the instructor have regarding this course?
- 8) What is/are the objective(s) of the course?

From the class syllabus, including objectives/outcomes for the class as a whole

9) What were the results of past assessment of the student outcomes of the course? Include content of previous student feedback - if you have them:

IDEA outcomes from last time you taught the course

Assessment (ABET or ACCE) results from last time you taught the course Informal feedback you have from earlier in the semester

10) What is/are the student learning outcomes of today's class?

a)

b)

11) What type of teaching strategies are you going to use in today's class? (lecture / discussion, large group work/group activities, demonstration/experiment, role play, case study, resource person, field trip, supervised study)

a)

b)

12) What components of your teaching would you like me to be especially aware of during today's session? (new techniques, problem students, other)

Send to Observer one week ahead of the observation:

- 1) This file
- 2) Course syllabus
- 3) PowerPoint (if available)
- 4) Handouts (if being used)
- 5) Other material as appropriate

Part 3: Pre-Observation Dialogue

At least two days ahead of observation, print out and go through this file and all supporting material together. Make changes to class outcomes and teaching strategies, if needed, and together decide on "Today I will look for..."

Part 4: Observation

Add to this file the results of the Part 3 Pre-Observation Dialogue - "Today I will look for..."

The observer should print out the	ne Part 4 form, with the following copied from this form,	to use
take notes during the observation	n:	
Instructor Name	Observer Name	
Course and Section	Date of Observation	
Class Outcomes:		
Teaching Strategies:		

Today I will look for...

Part 5: Written feedback about the Observation

After the Observation, the observer returns to the faculty these written out in this file:

- 1) Course outcomes met?
- 2) Teaching strategies used well?
- 3) Observation of how the faculty did the "Today I will look for ..." portion
- 4) In general:
 - a) Strengths
 - b) Areas to be improved/Changes to consider

Part 6: Post-Observation Dialogue

Together agree on:

Strengths

Areas to be improved/Changes to consider

What will we focus on during the next observation?

Part 7: Post-Observation Write-Up and Action Plans

Write out, as a result of the Part 6 Observation dialogue, the answers to these:

- 1) What we discussed from the observation
 - a) Strengths
 - b) Areas to be improved/Changes to consider
- 2) What will we focus on during the next observation?

Figure 6. COM department peer observation documents

Department Head Classroom Observation	Faculty: Course: Observation Date:
2.2.2.2.2.2	
The South Dakota State University Faculty Handbook efficacy of faculty in the teaching and advising role [S professionals, which includes department head class	ection x.xx]. Measures include evidence from other
The goal of this activity is for the department head to including general interpretation of teaching effective areas for improvement. The classroom visit will also knowledge and teaching performance. The results be to be included with the annual Faculty Annual Report	ness at the time of the visit, observed strengths, and inform the summative evaluation of subject matter ecome part of the body of evidence of teaching measures
Objective: What was the objective of this class /le	ab session?
Activities: Description of activities during the obs	ervation.
Evaluation	
Formative:	
Signed Da	ate
Department Head	
Construction and Operations Management Departme	ent

Figure 7. COM department head observation document