Promoting Physical Therapists' Instructional Expertise and Teacher Efficacy

Linda S. Behar-Horenstein
University of Florida

Kellie W. Roberts
University of Florida

Charisee Hudson-Vassell
University of Florida

Mueen A. Zafar
Air University

Most studies in faculty development focus on assessing participant satisfaction rather than documenting change. The purpose of this study was to explore the possible short-term outcomes of a faculty development initiative. The research question that guided our study was: How does a faculty development seminar influence change in participants' instructional beliefs? An analysis of participant's (n = 7) learning journals showed that they experienced increased confidence using an expanded repertoire of teaching methods and models. Five of the participants demonstrated their ability to promote critical thinking during their PowerPoint presentations illustrating their integration of new information and simultaneous behavioral change. To develop a knowledge base beyond assessing participant satisfaction, researchers may need to relinquish casual assumptions and conceptualize how different modes of inquiry might yield untapped outcomes.

Faculty development helps institutions build competence and skill among their faculty (Steinert, McLeod, Boillat, Meterissian, Elizov & Madonald, 2009). Defined as a "broad range of activities" universities use to achieve such ends (Steinert, 2000, p. 44), faculty development affects instructional, professional, organizational, and career practices as well as personal growth (Camblin & Steger, 2000). However, empirical studies situate faculty development as primarily beneficial to the individual and their institution (Farmer, 2004; Gusic, Milner, Tisdell, Taylor, Quillen & Thorndyke, 2010).

Though addressing faculty satisfaction, in an effort to raise vitality, is sometimes a primary focus of development practices (Steinert, 2000), studies typically focus on the effects of these practices on educator skill development (Gusic, et al., 2010; Thorndyke, 2006). Because of these two foci (vitality and educator skill development), little is known about the range of professional development activities, and their short-term and long-term outcomes (Gusic, et al.). Furthermore, interventions used in these studies rest primarily on traditional models of professional development that ascribe to a linear relationship between the intervention activity and changes in the learners who benefit from faculty instruction (O'Sullivan & Irby, 2011). Most studies fail to document behavioral changes among participants because of the tendency to rely on casual assumptions (Green et al, 2003). Missing

from studies are descriptions of the changes participants demonstrate following intervention (Dolcourt, 2000; Murray, 2002; O'Sullivan & Irby, 2011; Ramalanjaona, 2003). Such studies would provide information on the behavioral or belief changes that occur in response to intervention. According to Murray (2002), the typical construct of faculty development makes it nearly impossible to illustrate the changes and/or effect had on the participants in ways that are easily discernible. Such constructs often include participants' ratings of satisfaction that are collected after the intervention (Ramalanjaona, 2003). Because there is insufficient evidence that correlates participant satisfaction with their belief or behavior changes, such information does little to extend this knowledge.

Specific to the aim of this paper is the recognition that there is a dearth of studies aimed at promoting teaching skills among physical therapy faculty despite an expressed need. To address this dilemma, a seminar was offered to physical therapists at one academic health science center at a research extensive university. The purpose of the seminar was to offer a forum to discuss teaching and learning and to prompt faculty to: (a) develop a teaching philosophy; (b) analyze the extent to which they fostered critical thinking in their course activities; (c) identify teaching strategies that promoted critical thinking skills; (d) demonstrate how they used critical thinking skills via a presentation; and (e) report changes they believed that

they had as a result of participating in the seminar. The overarching question was: How does a faculty development seminar influence change in participants' instructional beliefs? The researchers used an interpretivist theoretical framework to guide their inquiry. Informed by constructivism, the researchers engaged in critical analysis to consider the subjective and relational stances of the participants' experiences (Kezar, 2006).

Methods

Participants

All members of the faculty in the Department of Physical Therapy (n=18) of a research extensive university in the Southeast U.S. were invited to participate in a voluntary faculty development seminar. Fifteen faculty initially started the course. However, only seven participated and completed course assignments. The participants, all white faculty members, (6 females; 1 male) who had been at the university between one and 30 years, (μ = 8.58) included four tenure-accruing faculty: an assistant professor, research assistant professor, assistant clinical professor and a clinical associate professor as well as three non-tenure accruing faculty: an adjunct instructor, clinical instructor, and a predoctoral fellow. Faculty's specializations included Pediatrics in Neurologic Rehabilitation, Cardiovascular and Pulmonary, Orthopedics, and Musculoskeletal Pain.

The Seminar

The seminar was offered in response to a request by a small of group of Department of Physical Therapy faculty. The Department Chair agreed to fund the six-week, 12-hour course. As an expectation for satisfactory completion of the course, each participant developed an e-teaching portfolio that consisted of a personal teaching self-efficacy analysis, a summary of their teaching philosophy, an analysis of learning activities that use and promote critical thinking, and a statement of growth. Along with the completion of learning journals from instructor prompts, participants also read Paul and Elder's (2006) *Critical Thinking Concepts and Tools,* and other selected readings. Appendix A depicts an overview of the course. Only those participants completing all course assignments (n =7) were included in the qualitative analysis of the learning journals. The first and third authors independently analyzed the data. Using NVivo 9.2, the first three authors reached consensus on the themes and related conceptual definitions.

As a part of the seminar, participants were asked to create individual PowerPoint presentations for a class lesson. Individually each researcher viewed the participants' slides and rated them for evidence of critical thinking skill instruction using Paul and Elder's criteria (2006): raises vi-

tal questions and problems, formulating them clearly and precisely; gathers and assesses relevant information using abstract ideas to interpret it effectively; comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards; thinks open-mindedly with alternative systems of thoughts, recognizing and assessing, as need be, their assumptions, implications and practical consequences; and communicates effectively with others in figuring out solutions to complex problems. One point was awarded for evidence of each criterion and zero if no evidence was observed. To calculate a mean score for each participant, scores given by each researcher for criteria in the rubric were summed across each participant and divided by the number of researchers.

Results

Themes

Ten subthemes including assessment, building awareness, efficacious, non-efficacious, professionalism, promoting critical thinking, responding to learner, statement of growth, student accountability, and teaching practices were identified. While exploring the subthemes, the researchers found a common thread that suggested the subthemes coalesced into two overarching themes: instructional strategies and teacher personal sense of efficacy. For example, the contents of the subthemes: teaching practices, promoting critical thinking, student accountability, assessment, responding to learner, and professionalism pertained to activities that were central to providing instruction in the discipline. The contents of the subthemes: non-efficacious, efficacious, building awareness, and statement of growth related to participants' sense of agency about how they could effect changes in students by the ways they teach, how knowledge of learning styles impacted their teaching, and how knowledge of how they teach influenced their agency. See Table 1. Conceptual definitions are shown in Table 2.

Instructional Strategies

Teaching practices. Most participants seemed quite comfortable using varied approaches to teaching. Over the duration of the course, they became increasingly cognizant of their importance in promoting active learning. Terri, for example,

> … [relied] on several instructional strategies that support and encourage learning: informal lectures with discussion; … demonstration by instructors of evaluation and treatment; …lab periods that encourage problem solving… with feedback provided; small group presentations that require team work; community service that requires working with disabled individuals; … patient evaluation and treatment planning …in a private clinic…; [and] guest speakers.

Also exemplifying the importance of active learning, Martha explained,

> I try to provide learning opportunities where the students are actively seeking the answer or solving the problem. … [and] provide them simulated experiences of … search[ing] the literature/professional guidelines for how to treat the patient in front of them.

Others reported challenges as they diversified their teaching practices. Sally described her efforts at using multisensory approaches to teaching as she attempted to use,

> …labs, physical activity, small groups, class discussion, case scenarios, and experiential exercises to reinforce major learning experiences. [Although] this was a big shift from my *safe zone* of PowerPoints and instructor-centered teaching … being able to identify appropriate exercises and carry them out increased my sense of efficacy.

Promoting critical thinking. Rachel used small groups to inculcate the teaching of critical thinking. She

Table 1. Themes by # of Participants (n = 7) by Frequency

Themes	Participants	Frequency
INSTRUCTIONAL STRATEGIES		
Teaching practices	7	23
Promoting critical thinking	7	14
Student accountability	7	13
Assessment	5	6
Responding to learner	4	13
Professionalism	4	6
TEACHER PERSONAL		
SENSE OF EFFICACY		
Non-efficacious	7	23
Efficacious	7	16
Building Awareness	5	18
Statement of growth	5	10

Table 2. Conceptual Definitions for Subthemes

INSTRUCTIONAL STRATEGIES	TEACHER PERSONAL SENSE OF EFFICACY
Teaching practices. Methods and means for presenting concepts and materials.	**Non-Efficacious**. Lacks confidence or capacity to provide instruction.
Promoting critical thinking. Explaining activities that promoted student responsibility for their thinking.	**Efficacious**. Feelings of capability in instruction and related practices.
Student accountability. Student responsibility in the learning process.	**Building awareness**. Recognizing roles that faculty members need to demonstrate.
Assessment. Ways of evaluating student progress.	**Statement of growth**. Changes in personal perspectives about teaching.

randomly divided students into groups and assigned disease processes specific to the pediatric population. She instructed students to work together as a group, to provide oral presentations to the entire class, and to support what they reported with evidence using current literature. Ian had his students perform basic analyses and interpret the output. However, he had, "… *not been as happy with the level of discussion from this activity, and after reviewing the 'critical thinker' criteria, it is apparent that what [was] lacking [was] the 'thinking open-mindedly within the alternative systems of thought…' criterion.*"

He found that most of his students were very rigid in this assignment, and wanted a clear cut "*right or wrong*" answer, although, "*one of my goals [was] to NOT have that be a focus*".

Student accountability. Terri explained that the course impacted her ability to hold students accountable for learning, "*Making the students more responsible for the content in the course has probably been the most important asset, advice, and action taken since completing the course*". Ian's concept of student accountability related to students' decorum, "*I also make it very clear to the students that there are boundaries to their behaviors and those that cross the boundaries are held accountable*". Angela modeled student accountability by attempting to,

> impart the importance of being an adult learner who takes responsibility for learning the material, … for seeking help if needed, … and for taking part in discussions and [supporting their contributions].

Moreover, she expected students "*to know when they need further clarification of information and to seek it out*".

Assessment. Rachel described her assessments as "*written tests, oral presentation, lab and patient treatment competencies, class participation and journaling*". Ian's techniques for measuring student learning were, "*one part tests (including both multiple choice and essay type questions) and one part out of class assignments*". Overall, most of the participants depended on traditional approaches such as multiple-choice exams.

Responding to learners. Recognizing students' readiness for learning or waning attention was reflected in Martha and Chloe's observations. Martha explained the importance of setting up the class agenda.

> Students don't like surprises or always wondering 'what's next'. Sharing the plan with them (for the day or for the entire unit) will help allay [their] fear… Many students appreciate a roadmap.

She observed that providing students with examples of her expectations was quite helpful, rather than assuming "*that students can read my mind or that they will 'figure it out'*". In regard to keeping students' attention, Chloe pointed out that,

If they look like their minds are wandering or they are not paying attention, I try to interject a question or [an] example for them to comment on. If I hear talking, I try to move in that direction and engage them…. If it looks like they need a break, we do have time [for that or we] break into their discussion groups.

Professionalism. Chloe reported that she taught professionalism through modeling and explained that *"…. I try to present myself in a manner that is representative of a professional within the field of physical therapy in both attitude and attire. I expect the same from my students"*. Concurring, Sally commented that, *"An educator serves as a professional role model, and sets an example of the technical skill and professionalism expected"*.

Teacher Personal Sense of Efficacy

Non-Efficacious. All of the participants reported that, at times, they felt a lack of confidence in their ability whether during the planning and delivering of instruction or when assessing their students' work. Rachel lamented the amount of time it took for preparation,

I find it difficult to prepare the lecture material. It takes a long time for me to define/clarify what the lecture is going to include. It is easy to make the objective for the lecture but difficult to determine the best way to translate the material to the students.

Others were uneasy with the presentation of course material or in opening the floor to student participation. Martha describes her discomfort,

I need to become more comfortable with class discussion, with gray areas, with pauses for reflection, in other words with not always feeling in control. I need to be comfortable with not always having the answer but to turn that moment into a learning opportunity for both myself and the students.

Participants also expressed anxieties about assessing students' work and assigning grades. Sally explained that she is *"…slow to grade and write feedback on assignments or exams, because I want to be certain that the student responses match the criteria…."* Ian rationalized his lack of efficacy in this area noting that, *"Assessment is a major weakness of mine given that my doctoral training was heavy on research and light on educational methodology"*.

Efficacious. In contrast to expressed concerns about grading, time for preparation, and engaging students during instruction, many of the participants felt efficacious in planning for instruction, and classroom management. Rachel described that her strength, *"…is presenting thorough information to students [and] using real clinical experience as evidence. I am also strong in performing patient demonstrations while explaining what I am doing and why…."*

Ian, Angela, Chloe and Terri reported feeling confident in their ability to plan for instruction. Many

participants also explained that they were able to handle classroom management issues. Terri wrote, *"I am now able to express my expectations of behavior in class and consequences without feeling conflicted"*. Similarly, Angela and Ian reported their efficaciousness with classroom management. Ian shared, *"…I feel efficacious in the management of students, whether it [is] in normal situations or with the occasional disruptive/confrontational students"*. Chloe explained, *"I feel that I can handle some disruptive behavior for the entire class. I have a loud voice and can be forceful if I need to get class attention"*.

Building awareness. During the seminar, participants recognized how their instructional roles needed change. For example, they became aware that their preferred learning styles had guided their teaching approach, which was not always in the students' best interest. Martha became cognizant that she, *"… prefer[red] to learn 'straight-up' — no round-about games, no role-playing, no self-discovery — just give me the facts — efficiently. I've realized that might not be the best way to teach"*. She continued noting that,

There are people who prefer to learn (and learn better) through self-discovery or role-playing and I need to broaden my teaching (facilitating) approach to accommodate those learning styles. I've learned I need to provide the students the opportunity to problem-solve rather than simply providing solutions.

Sally discussed how her new understanding of learning styles made her aware of how to adjust her teaching. She explained,

I began to identify the value in varying the learning environment, both to support learning of others with styles that differed from my own, and to inject multiple reinforcing layers to teaching critical thinking and stimulate greater interest in the subject matter.

Statement of growth. Participants were very candid in their comments related to how the course had impacted their growth. For example, Terri stated, *"I must admit that the course has changed many of my strategies but with a sense of purpose and more direction to reach the goals I establish"*. Similarly, Rachel stated, *"I have learned that there is methodology to this task of teaching"*. Others shared that the course centered on how to teach, not what to teach, and its impact. Chloe pointed out, *"Teaching is just not about conveying information [it is about] how we can convey that information so that the students have to think"*. Concurring, Angela *"was re-energized to [to offer] greater critical thinking opportunities for the students"*. Rachel said, *"I am aware of how to guide questioning to instill critical thinking"* and she also pointed out that, *"My growth during this class has been remarkable"*. Continuing, Rachel found that, *"this course has helped me find clarity in the teaching experience. I am now aware of the beliefs that I had about how/what I was supposed to teach… that there are a variety of ways to present*

material and impress the important points… [and] that there are a variety of styles of learning". Martha commented that, *"During this course, I have learned that my role as a faculty member is not simply one of 'information-giver'. I have realized that 'how' I provide information is just as important as 'what' information I provide".*

PowerPoint Presentations

Researchers viewed and rated participants' PowerPoint presentations for evidence of critical thinking skill instruction using Paul and Elder's criteria (2006). Mean scores ranged from 4.75 to 0, with the possible range of 5 to 0. Five of the seven participants demonstrated moderate to high scores (2.00 to 4.75), while the other participants showed little to no demonstrated ability to promote critical thinking in this activity. (See Table 3).

Discussion

The focus and purpose of faculty development has changed (Steinert, 2000). Currently, it includes an emphasis on vitality of the professors' tripartite responsibilities and efforts to advance faculty for institutional leadership. These shifts require that development activities adhere to contemporary needs (Steinert, 2000), and feature appropriate embedded interventions (Pickworth & Snyman, 2012). To bridge this gap, faculty development often seeks to improve the research and teaching skills of its participants (Bligh, 2005). By documenting the actual activities that occurred in the teaching development seminar, the researchers were able to observe changes in participants' beliefs related to their instructional strategy use and their teaching efficacy. In their learning journals, participants reported using varied teaching practices. They explained

how important it was for their students to own their learning processes and become reflective about treatment planning choices. Some of the participants were responsive to students' learning needs, while all participants reported an emerging sense of confidence in using a broader repertoire of teaching methods and models. During the course, they became increasingly aware of their limitations and cognizant of areas where they needed growth. As they learned more about curriculum, instructional strategies, modes of assessment and delivery, they became self-reflective and more vocal about making such changes. When sharing their personal statements of growth, most participants discussed a desire to focus on how they presented information rather than the information itself. While contemplating and integrating the components of the seminar into a newfound personal pedagogy, they described how teaching has become demystified. For example, while describing plans for making changes, most participants proposed how they would continue to expand their skillsets.

Five of the seven participants demonstrated the teaching of critical thinking skills during their PowerPoint presentations as evidenced by Paul and Elder's (2006) criteria, suggesting an integration of new learning. However two of the participants did not demonstrate teaching critical thinking skills. While all of the participants showed a conceptual understanding of what they were learning, just learning new information does not always result in immediate behavioral change. Also, thinking and writing about self-efficacy may not be enough to change educators' views of teaching, or beliefs about their abilities to impact changes in students via instruction (Behar-Horenstein, Childs, & Graff, 2009; Bell, Blair, Crawford, & Lederman, 2003). Participants need to possess the capacity, willing-

Table 3. Ratings of participants' (n = 7) teaching with critical thinking skills during their PowerPoint Presentations

Raises vital questions and problems, formulating them clearly and precisely	Gathers and assesses relevant information using abstract ideas to interpret it effectively	Comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards	Thinks open-mindedly with alternative systems of thoughts, recognizing and assessing, as need be, their assumptions, implications and practical consequences	Communicates effectively with others in figuring out solutions to complex problems	Total Score	Mean Score
3	1	2	1	1	8	2.00
4	4	2	3	4	17	4.25
2	4	1	1	3	11	2.75
4	4	3	2	3	16	4.00
0	0	0	0	1	1	.25

ness and readiness to synthesize concepts in order to enact them into teaching practices. They must connect related concepts to their personal method of teaching. Without seeing the connection between what they are learning and how it relates specifically to how they teach or without a felt need to change their teaching, they may have little awareness of, or sense of urgency to change their teaching style. Concurrently, their institutions must yield to revised conceptualizations of teaching and remain open to their instructional changes. Faculty must also consider how newly acquired skills and practices may affect student outcomes.

Participants enrolled in this seminar to bridge the gap between the content they taught and how they taught (Bligh, 2005; Bland, Seaquist, Pacala, Center & Finstad, 2002; Rafkin, 2000). Limitations of this study were the use of a small participant group and lack of transferability of findings. However, the study's findings replicate previous results (Behar-Horenstein, Mitchell & Graff, 2009). Measuring faculty satisfaction has been a primary focus of faculty development studies (Steinert, 2000). This study differs from previous work in that it addresses the process, the activities, and their short-term outcomes (Gusic et al., 2010). Furthermore, the current study provides evidence of change in participants' beliefs (Green et al, 2003) and shows how newly formed beliefs were enacted (Behar-Horenstein, Zafar, & Roberts, 2012). Faculty development is crucial to lifelong learning, and to the professional renewal of any educator. Before a faculty development initiative can lead to sustaining change, first, participants need to develop an awareness of what their beliefs are and how beliefs impact behavior. Behavioral change without cognition of the factors that fostered change is either accidental or it is unlikely to be sustained. Thus, for change to be authentic and enduring, it has to emanate from a conscious action and desire to be effortful in making change.

Ensuring the vitality of faculty development depends, in part, on documenting outcomes and studying the impact of change. For researchers to advance beyond assessing participant satisfaction it is essential to show them, and those who fund these opportunities, the worth of their investments. Taking time to conceptualize best methods of research inquiry, considering how to document and assess change is not necessarily a straightforward task. Getting messy with ill-structured data, however, may permit the value of faculty development to become more transparent to those who wonder about its value.

References

Behar-Horenstein, L.S., Zafar, M.A., & Roberts, K. W. (2012). Impact of faculty development on physical therapy professors' beliefs. *Journal of Faculty Development, 26*(2), 37-46.

Behar-Horenstein, L. S., Mitchell, G. S., & Graff, R. (2009). Promoting the teaching of critical thinking skills through faculty development. *Journal of Dental Education, 73*(6), 665-675.

Bell, R.L., Blair, L.M., Crawford, B.A., & Lederman, N.G. (2003). Just do it? Impact of a science apprenticeship program on high school students' understandings of the nature of science and scientific inquiry. *Journal of Research on Science Teaching, 40*(5), 487-509.

Bland, C. J., Seaquist, E., Pacala, P. T., Center, B. & Finstad, D. (2002). One school's strategy to asses and improve the vitality of its faculty. *Academic Medicine, 77*(5), 368-376.

Bligh, J. (2005). Faculty development. *Medical Education, 39*(2), 120-121.

Camblin, L. D. & Steger, J. A. (2000). Rethinking faculty development. *Higher Education, 39*(1), 1-18.

Dolocourt, J. L. (2000). Commitment to change: A strategy for promoting educational effectiveness. *Journal of Continuing Education in the Health Professions, 20*(3), 156–163.

Farmer, E. A. (2004). Faculty development for problem-based learning. *European Journal of Dental Education, 8*(2), 59-66.

Green, M. L., Gross, C. P., Kernan. W. N., Wong, J. G. & Holmboe, E. S. (2003). Integrating teaching skills and clinical content in a faculty development workshop. *Journal of General Internal Medicine, 18*, 468-474.

Gusic, M. E., Milner, R. J., Tisdell, E. J., Taylor, E. W., Quillen, D. A., & Thorndyke, L. E. (2010). The essential value of projects in faculty development. *Academic Medicine, 85*(9), 1484-1491.

Kezar, A. (2006). To use or not to use theory: Is that the question? In J.C. Smart (Ed.), *Higher education: Handbook of theory and research*, 21, (pp. 283-344). Netherlands: Springer.

Murray, J. P. (2002). Faculty development in SACS-accredited community colleges. *Community College Review, 29*(4), 50-66.

O'Sullivan P. S., Irby D.M. (2011). Reframing research on faculty development. *Association of American Medical Colleges, 86*(4), 421-8.

Paul, R., & Elder, L. (2006). *A miniature guide to critical thinking: Concepts and tools* (4th ed.) (p. 4). Dillion Beach, CA: Foundation for Critical Thinking Press.

Pickworth, G. E. & Snyman, W. D. (2012). Changing assessment practice through in situ faculty development. *European Journal of Dental Education, 16*(1), 59-63.

Ramalanjaona, G. (2003). Faculty development: How to evaluate the effectiveness of a faculty development program in emergency medicine. *Academic Emergency Medicine, 10*(8), 891-892.

Steinert, Y. (2000). Faculty development in the new millennium: key challenges and future directions. *Medical Teacher, 22(1),* 44-50.

Steinert, Y. McLeod, P. J., Boillat, M., Meterissian, S., Elizov, M & Macdonald, E. E. (2009). Faculty development: a 'field of dreams'. *Medical Teacher, 43,* 42-49.

Linda S. Behar-Horenstein, PhD, is a Distinguished Teaching Scholar and Professor in Educational Administration and Policy in the School of Human Resources and Organizational Studies in Education and Affiliate Profes-

sor in Community Dentistry and Behavioral Sciences at the University of Florida.

Kellie W. Roberts is a doctoral candidate in Higher Education Administration in the School of Human Resources and Organizational Studies in Education at the University of Florida.

Charisse Hudson-Vassell is a doctoral student in Educational Administration and Policy in the School of Human Resources and Organizational Studies in Education at the University of Florida.

Mueen A. Zafar, PhD, is Associate Dean at Air University in Islamabad, Pakistan.

Appendix A
Course Overview

Session #	Topic	Participants' Assignments
#1	**Instructor Presentations** • Overview of the course • Teaching Self-Efficacy **Group Activity** • Participants take Teachers' Sense of Self Efficacy Survey **Discussion**	1. Bring hard copy of course syllabus. 2. Audit alignment in syllabus and write up findings for e-teaching portfolio. 3. Using Elder and Paul's Critical Thinking Skill guide, critique the learning activities in your course syllabus and identify: (a) those that you currently provide that promote/require critical thinking skills, (b) those that you think you approximate (almost do), and (c) the next steps for implementing/developing others that will deepen students' understanding and use of critical thinking skills. 4. Identify those areas of teaching in which you feel efficacious and those you do not, e.g., planning for instruction, delivering instruction, writing assessments, assigning grades, providing varied forms of instruction, managing students, and dealing with disruptive and/or confrontational students. Write summary. 5. Write up review for e-teaching portfolio.
#2	**Teaching Critical Thinking Skills** **Group sharing** • Participants share examples of how they use strategies aimed at teaching critical thinking in their course, how they approximate its use and identify next steps for implementing other learning activities to deepen students understanding and use of critical thinking skills. **Instructor Presentations** • Is it or is it not CT? Explain why or why not. • Aggregate findings from Teachers' Sense of Self Efficacy Survey. **Discussion**	1. Read online article and write teaching philosophy for e-teaching portfolio.

Continued on next page.

Session #	Topic	Participants' Assignments
#3	**Instructor Presentations** • Peer observation/evaluation • Role of peer observation in enhancing instructional practices • Methods of conducting peer observation/ evaluation • PT Peer evaluation process **Group Activities** • View peer observation/evaluation scenarios. • Write one-minute paper and describe what you saw. **Discussion**	1. Show clips of peer observations on CD. Participants write one-minute paper about what they saw and discuss. 2. At the end of each CD scenario, participants complete the hand-out: Participant feedback on Peer Observation Scenarios and identify: What aspects of the first/second peer observation could lead to improving the quality of instruction? 3. Prepare presentations for Session 4 or 5.
#4/5	**Participant Presentations** • Using Powerpoint, participants present a learning experience that requires their students to demonstrate critical thinking skills or that approximates students' use of critical thinking skills, or they try a new experience that they believe will deepen students understanding and use of critical thinking skills. **Group Activities** Class members complete feedback handout, Participant feedback on Presentation of Critical Thinking Skills Presentation and respond to following questions: 1. What aspects of the lesson promoted critical thinking skills? 2. What else could be done in the context of this learning experience to promote critical thinking skills? **Discussion**	1. Write Statement of Growth for e-teaching portfolio. 2. Complete e-portfolio and burn CD. 3. Prepare for brief presentation in session 6.