

EE400D (Teaching Engineering): Classroom Observation

Faculty/Instructor: Kazumi Tolich

Date/Time of Observation: 10/11/2019

Observer: Victor Cannestro

Course Number: PHYS 116

Format Observed (Lecture, Lab, Quiz Section): Lecture

Number of Students Enrolled: 90

Number of Students Attending: 65

Instructions

This observation worksheet contains both close-ended (Likert Scale) questions and open-ended (descriptive) questions regarding what the instructor is doing during the observed time period (session) and what the students are doing. Not all behaviors or activities are covered in the close-ended questions; those activities that are not included in the close-ended questions can be integrated into the open-ended questions. Please highlight your answers in a different, but legible color, minimize white space, and provide clean and consistent formatted in the completed observation.

<i>During the Observed Session:</i>	<i>Not at All</i>	<i>Somewhat</i>	<i>Satisfactory</i>	<i>Outstanding</i>
The instructor provides objectives for the class session (written, verbal, or both).				X (sent to students before class and briefly mention in)
The instructor relates the session content to learning outcomes for the course.	X (Probably mentioned in the objectives sent beforehand)			
The instructor uses visual aids that are clear, organized, and relevant.				X (Demo + uses PP to convey quizzes)
The instructor uses practical, "real-world" examples to support teaching.		X (Most were mentioned on the last slide when people left)		
The instructor refers to the relevant portions of the textbook, reading, or other supplement.				X (on every slide)
The instructor uses humor effectively to promote student engagement and rapport.				X (several jokes observed to good effect)

The instructor answers questions well and demonstrates knowledge of the subject.				X
The instructor shows clear interest or enthusiasm in teaching.				X (very energetic and had an open expression)
The instructor uses student names.	X			
The instructor asks specific questions.				X (to guide the quizzes)
The instructor pauses after asking a question.				X (the questions were the quizzes)
The instructor asks questions of students that result in responses from students.				X (every student responded)
The instructor changes gears periodically from one style of teaching to another.				X (Think-pair-share to discussion of the solution)
The instructor engages students periodically through think/pair/share, problem solving, or other active learning exercises.				X (this was the whole lecture)
The instructor uses guided notes.			X (I saw students filling in a document with quiz material)	
The instructor involves students periodically in what is to be covered during the session.	X			

During the Observed Session:

Not at All Somewhat Satisfactory Outstanding

The instructor uses more than one way to explain problems or concepts.				X (active learning; and analogies via words or physical movement)
The opening of the class session gets students' attention.				X (slides showing an application following what

				was going to be covered)
The instructor provides a summary of what has been covered and accomplished at the end of the observed session.	X			
The instructor provides a preview of the next session or ideas of what to consider for the next class at the end of the observed session.	X			
The instructor could be easily heard.				X
The instructor moves around in the classroom and refrains from standing/sitting in one place.				X (It wouldn't be possible for her to move around more than she did)
The instructor uses analogies or metaphors to relate the concepts to students' experience.				X (several were observed and well received)
The instructor emphasizes key points throughout the observed session.				X (Each quiz highlighted a key point)
The instructor makes eye contact with students.				X (An inevitable part of her moving around)
The instructor uses open (not closed) body language during the observed session.				X
The instructor engages in behaviors that develop rapport and trust with the students.				X (Funny jokes and very energetic during lecture)
The instructor relates the material/concepts to personal or societal concerns.		X (Once during an analogy and again at the end of the lecture)		
The instructor is available before class.			X (She was early, but needed time to set up)	
The instructor is available after class.		X (A few minutes)		

What types of visual aids (dry-erase board, chalkboard, powerpoint, etc) does the instructor use during the observed session? How are these visual aids used?

The instructor used PowerPoint for quizzes pictures and detailed explanations; a demonstration; and real-time online feedback from the quizzes.

In your opinion, what was the best/most effective teaching moment observed in this session?

It's rather hard to pick one moment. The entire lecture was broken up into bite sized think-pair-share activities. It was the most engaging, collaboratory physics lecture I've ever seen.

In your opinion, what was the most unique teaching moment observed in this session?

The instructor ran from one side of the room to another, asking "Does the length of this table change because I'm running past it?" It clarified a quiz question.

In an organized paragraph with complete sentences, describe what the instructor did throughout the session (150-250 words).

The instructor arrived 7 minutes early, prepped her lecture slides and microphone, and dimmed the lights. Once class started, she asked "Do you have any questions?" Next, she dove into announcements about the upcoming exam and announced that she updated the equation sheet. She began her lecture showing an application of the Doppler Effect to measure blood flow. The second slide stated the learning objectives for the class—students were expected to read it before lecture. She moved through a few slides quickly onto a quiz slide, pausing for students to think, pair, and share. She moved through the aisles as this happened, listening to conversations, then asked students to share their thoughts. Afterwards, the answer was discussed as a class. The next slide was another quiz—same format. She ran up to the back left of the room and cold called a student to share their reasoning. She asked a closed ended question, leading them to the answer. A third quiz was prompted by her, requiring a calculation. She moved up and down both aisles during the discussion and cold called. Next, the explanation was provided. She demonstrated the question physically by swinging a beeper over her head. Quiz 4 was prompted. She made an analogy to help and ran from one side of the room to the other. She made more analogies in the discussion. (She had been looking at what students answered in real time online and addressed wrong answers.) She answered a question. Quiz 5 occurred. She asked "Are you happy?" after discussing the solution. Quiz 6. After the solution, she said "Questions?" She posted a link related to the quiz of research showing moths tricking bats with ultrasound. She displayed many applications on the last slide.

Her methods ensured student engagement, and the atmosphere was rather pleasant: focused on the problems yet lighthearted from the instructor's jokes and movement. The slides were easy to read and quizzes doable if the student was looking at the relevant formula or concept in the guided notes online.

During the Observed Session:

None

Few

Some

Many

Most

Students maintain attention toward the instructor (for example – eye contact).

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X ()

Students remain awake and alert during the observed session.					X (everyone submitted something for the quizzes)
Students are using their cell phones or other electronic devices in activities unrelated to class.		X			
Students are over one minute late to class.			X (maybe a 6 th of the class)		
Students pack up early at the end of class.			X (it caused an avalanche effect and drowned out the last slide)		
Students are reading the newspaper or doing other non-electronic activities unrelated to class.		X			
Students interact with the instructor before class.	X				
Students interact with the instructor after class.		X (3 did)			
Students initiate questions.		X			
Students respond to questions posed by the instructor.				X (the cold calls ensured this)	
Students ask follow up questions.		X (these prompted analogies)			
Students participate in class when asked to do so by the instructor.					X (cold calls)
Students are taking notes.					X (nearly everyone)

In your opinion, how would you best describe students' interest in the observed session?

Most students are engaged with the material and participate in every quiz. The amount and duration of the quizzes complemented their attention spans well.

In your opinion, how would you best describe students' affect (emotion) in the observed session?

Most were curious and alert. Their faces were confident and their voices steady when called. Some, however, were bored—evident through their lack of eye contact, relaxed posture, and that they only focused when answering a quiz online.

In an organized paragraph with complete sentences, describe what the students were doing during the observed session (150-250 words).

The students were using various technologies in the beginning—14 were on laptops and 6 were on phones—and side conversations were abundant. Two students were eating lunch. Students spoke to each other during the first quiz slide for a minute or two, though several were still on their phones. Students did another think-pair-share for quiz two. The student in front of me was shopping for sneakers then. Several responded to her closed ended question about the concept. Next, many students pulled out their calculators to answer quiz 3. Two students kept having a side conversation in the back right. Many students finished her sentence with the answer. By quiz 5, every student but one was engaged with problem solving. After quiz 6, the student in front of me was looking at memes on his phone. Students packed up early (during the last 2 slides) and some even left the class.

The lecture format greatly facilitated student engagement through active learning. Most students were very receptive, however some, still weren't very invested in the lecture—those students either displayed confidence regarding the material or disinterest with the class as a whole.

Are there any items that you believe should be added to this classroom observations worksheet? If so, please describe.