EE400D (Teaching Engineering): Classroom Observation

Faculty/Instructor: Richard J Anderson Date/Time of Observation: 11-1-19
Observer: Victor Cannestro
Course Number (Course Title): CSE 421 Intro to Algorithms
Format Observed (Lecture, Lab, Quiz Section): Lecture
Number of Students Enrolled: 114 Number of Students Attending: (66 = 54 + 8 Late)

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.

During the Observed Session:	*Not at All*	*Somewhat*	*Satisfactory*	*Outstanding*
The instructor provides objectives for the class session (written, verbal, or both).		X (The plan was briefly verbalized in the beginning)		
The instructor relates the session content to learning outcomes for the course.	X			
The instructor uses visual aids that are clear, organized, and relevant.			X (In the PP, the flow charts and coloring of terms were good additions. Offset by crowding info.)	
The instructor uses practical, "real-world" examples to support teaching.		X (Two examples were verbalized)		
The instructor refers to the relevant portions of the textbook, reading, or other supplement.	X			
The instructor uses humor effectively to promote student engagement and rapport.		X (Humor was attempted once in the beginning)		
The instructor answers questions well and demonstrates knowledge of the subject.			X (He is clearly an expert, but some	

			questions were brushed off)	
The instructor shows clear interest or enthusiasm in teaching.			X (His interest was clear, but not very enthusiastic)	
The instructor uses student names.	X			
The instructor asks specific questions.		X (Many were open ended and not effective)		
The instructor pauses after asking a question.		X (The pauses were very short)		
The instructor asks questions of students that result in responses from students.		X (Some participate in his polls)		
The instructor changes gears periodically from one style of teaching to another.	X			
The instructor engages students periodically through think/pair/share, problem solving, or other active learning exercises.	X			
The instructor uses guided notes.	X			
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			
The opening of the class session gets students' attention.			X (Students were pleased to get candy)	
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 (mic)
The instructor moves around in the classroom and refrains from standing/sitting in one place.		X (moves between podium and		

		nearby screen but nowhere else)		
The instructor uses analogies or metaphors to relate the concepts to students' experience.	X			
The instructor emphasizes key points throughout the observed session.				X (Key points where verbalized and shown on slide headings)
The instructor makes eye contact with students.				X (Essentially for the whole lecture)
The instructor uses open (not closed) body language during the observed session.			X (Most gestures were sweeping and broad. During anxious moments he would put his hands together in a wall)	
The instructor engages in behaviors that develop rapport and trust with the students.		X (He attempted jokes and frequently polled the audience, but they were disengaged)		
The instructor relates the material/concepts to personal or societal concerns.		X (Mentioned one application explicitly)		
The instructor is available before class.				X (About five minutes of small talk with students)
The instructor is available after class.		X (For 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?

PowerPoint slides represented 100% of the visual aids used by the instructor. He would cycle through and explain them without reading line by line, and provide some annotations when relevant.

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

The most effective teaching moment was when the instructor explained a flowchart with two equations replaced with question marks—these were two of the central questions to be answered in the session. It was very clear to see what they had previously done in class, where they were going, and that they needed some more theory to get there.

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

The most unique moment was when the instructor passed around a bag of Halloween candy for students to choose from. This coincided with the peak student eye contact rate during the lecture.

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

The professor arrived 7 minutes early and set up his lecture slides. He had small talk with the students, "Did any of you have a midterm today?" Moving on, he passed around a bag of Halloween candy for students to choose from. He began lecture describing the importance of the FFT and what they'll be doing in class today. He made a quick joke which got a few laughs. He used the phrase "The obvious next step…" several times and underlined relevant terms in the slides. He used his hands to point to the terms. He asked, "Are you all comfortable multiplying polynomials?" His posture was open, arms wide and motioning to where terms would be and in other gestures. He mentioned an application and verbalized an example. He then said, "What I'm going to do now is... so we can see what's going on. Don't get put off by the details." After a while he said, "Any questions?" Upon being asked to provide an example, he said, "That will come after some more details." After being asked about the set of assumptions he said, "That's a good question" and gave an answer. "Other questions?" He showed a flow chart. Then asked "If I gave you…How long would it take? What do you think...Come on someone's gotta to be able to figure it out." Later, He asked a rhetorical question out loud "what does ___ algorithm do?" and discussed it further, pointing to the content on the slides. His next slide had a detailed calculation and featured even terms in green font and odd terms in red font. "Put your hand up if that's making sense to you." Then he asked, "Questions?" He explained the key idea slide and asked, "How many of you buy this?" He asked, "Is there any way I can help you get this?" Lecturing further, "Does anyone see what the problem is if we tried to do this recursively?" Upon being asked what a complex number is, the instructor started from scratch. He then asked, "How many of you have seen the trig way of multiplying complex numbers?" He continued lecturing to the end of the slide and then said, "Okay? Make sense? Alright." and moved on. He wrote out an equation on a slide and asked, "What's the solution to that?" but was met by silence and a few seconds later he wrote down the answer. He asked, "How many of you have seen CTFTs before?" He proceeded to verbally explain the concept at a high level and emphasized how important the FFT is in computation.

Overall, the instructor seemed to be rushing through the material, trying to make it to the most important concepts on the last few slides. When asking questions, he would only pause a handful of seconds, most often, before lecturing again. He appeared slightly anxious and sped up after being met with silence.

During the Observed Session:	*None* (0%)	*Few* (<10%)	*Some* (10-30%)	*Many* (30-50%)	*Most* (> 50%)
Students maintain attention toward the instructor (for example – eye contact).			X		
Students remain awake and alert during the observed session.			X		
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			
Students pack up early at the end of class.					
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				
Students initiate questions.		X			
Students respond to questions posed by the instructor.		X			
Students ask follow up questions.	X				
Students participate in class when asked to do so by the instructor.		X			
Students are taking notes.		X			

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

Overall, most students' interest during the session is best described as marginal, bordering on disengaged. Most were very passive and frequently zoning out. Only a few were taking notes, responding to prompts, and asking questions.

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

Most students were some combination of bored and confused. This was evident by several leaning with their head in their palms, some slouching to the point of being almost horizontal, and the lack of eye contact throughout the lecture.

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

During small talk before class, a few students answered the instructor. As the lecture progressed, many students were eating candy and one was eating a salad. When he asked, "Are you all comfortable multiplying polynomials?" some students gestured quietly. After being told to brace themselves for the derivation to come, a student asked, "are we going to go through an example?" to which a response was given. During the derivation another student asked, "This is assuming…. right?" and an explanation was given. When they were asked "If I gave you…How long would it take? What do you think?" there was silence. After more prompting, a student in the back said, "Is it linear?" after which discussion followed

by the instructor. About 5 students were on their phones or computers and had their heads resting on their palms, as he went through the slides. Upon being asked, “Put your hand up if that’s making sense to you” during the derivation, a few students gestured. Further questions were also met with silence. Later, when asked, “Does anyone see what the problem would be if we tried to do this recursively?” the students made the connection to complex numbers. One student then asked, “Question: what the hell is a complex number.” Students were fidgeting during the explanation of multiplication of complex numbers—touching their faces or hair often. A few were having quiet side conversations. A student in the front raised their hand for a while, made eye contact with the instructor, but gave up after not being acknowledged. About half of the students weren’t paying attention at this point: eyes on their phones, computers, or zoning out. One student left early. Being asked, “How many of you have seen CTFTs before?” a few students gestured. Several students packed up early during his final comments.

Overall, students were soundly disengaged.

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