

Supplemental Material

CBE—Life Sciences Education

Andrews *et al.*

Appendix A—Interview questions

These questions were asked in a semi-structured interview. Interviewers conducting semi-structured interviews use a set list of questions, but adapt the delivery of the questions to maintain a natural flow of conversation with the interviewee. We asked the numbered question in each interview and asked the lettered questions as necessary to elicit thorough answers.

1. At what institution do you teach?
2. What type of position do you hold?
3. What courses do you teach and what size are your classes?
4. How long have you been teaching?
5. How did you learn about the NCCSTS Fall Conference?
6. How long after you learned about this conference did you decide to attend?
7. What (or who) influenced your decision to attend the NCCSTS Fall Conference?
 - a. People? Why was [person] influential in your decision?
 - b. Experiences? Why was [experience] influential in our decision?
 - c. Sources of information? Why was [source of information] influential in our decision?
8. Were there other teaching professional development workshops or conferences you considered attending? If so, why did you decide to attend this one?
9. Have you also attended other teaching professional development workshops or conferences?
10. What goals and expectations do you have for attending the Fall Conference?
 - a. [For those interview during or after the conference]: What were your expectations of the Conference before you came?
11. How did you first learn about case study teaching?
 - a. Where and when?
 - b. From whom or what sources of information did you learn about case study teaching?
12. Can you define case study teaching in 2 or 3 sentences?
 - a. Probe for definitions of jargon like ‘case studies,’ ‘active learning,’ ‘inquiry.’
13. Since learning about case study teaching, have you talked with colleagues at your institution (or at other institutions) about case study teaching?
 - a. If so, what did you talk about?
 - b. Do these colleagues use case study teaching?
 - c. Were these conversations useful to you? Why or why not?
14. What evidence have you seen regarding case study teaching?
 - a. Where did you encounter this evidence?
 - b. When?
 - c. What conclusions were drawn from this evidence?
15. Have you ever observed another teacher using case study teaching?
 - a. Who?
 - b. When?
 - c. Why?
16. How do you expect your colleagues and administrators to respond to your use of case study teaching?
17. Aside from what you’ve heard at this conference, have you ever heard other people promoting case study teaching?
 - a. If so, who?
 - b. How did what they said influence you?
18. What appeals to you about case study teaching?
19. Given your plans for using case study teaching hereafter, what concerns do you have about implementing your plans?
20. What challenges or barriers do you foresee in implementing case study teaching?

21. How do you intend to deal with the challenges you foresee?
22. Who could help you address these challenges, and what could this person do?
23. How does case study teaching differ from other teaching methods you commonly use (or have used in the past)?
24. How do you think case study teaching will be (or is) better for you? For the students?
25. How do you think case study teaching will be (or is) worse for you? For the students?
26. What value do you expect case study teaching to add to your teaching?
27. How do you feel about your ability to use case studies effectively?
 - a. Why do you feel that way?
 - b. Experiences?
 - c. Evidence?
28. How do you know if you are using case studies effectively?
29. What else would you like to learn regarding case study teaching?
30. Is there anything else you think I need to know about your experience with case study teaching?

Questions specific to novice case study users:

1. You say you've not used case studies before. Do you think you will use case studies after this conference?
2. How do you think you will use case studies after this conference?
 - a. Probe for rationale behind the way they use. Why do you.....? Why don't you.....?
3. What factors typically influence your instructional decisions?
 - a. Do you think those same factors will influence your decisions about case study teaching?

Questions specific to veteran case study users:

1. You say you've used case studies. How long?
2. Can you describe how you have used case study teaching in the past [or how you intend to use it in the future]?
 - a. Probe for rationale behind the way they use. Why do you.....? Why don't you.....?
3. How does your use of case study teaching differ from how other instructors use case studies?
4. Do you have any plans to change your use of case study teaching after this conference?
 - a. If so, how?
5. If so, what goals and expectations do you have for the changes you intend to make in your teaching?
6. What factors influence your instructional decisions regarding case study teaching?

Appendix B:

Initial *a priori* list of categories, generated in Phase 1 of qualitative data analysis

Adopting case study as is
Barr_colleague support
Barr_content coverage
Barr_student buy-in
Barr_time
Beliefs
Change in response to dissatisfaction
Col_colleague attitude_don't care
Col_colleague attitude_negative
Col_colleague attitude_supportive
Col_colleague interactions_co-instructors collaborated
Col_colleague interactions_coll promoted to participant
Col_colleague interactions_part promoted to colleagues
Col_seek knowledge from peers
Colleague attitude
Colleagues
Custom_adapting
Custom_lack of cust causes problems
Custom_reinventing
Discomfort from implementing change
Discontinuance
Endorsement by a respected expert
Evid_interp as data from literature
Evid_interp as peer experience
Evid_interp at personal experience
Evid_qualified personal experience
Evid_valued personal exp over data
Ext factors_curr/program
Ext factors_deans
Ext factors_dept head
Ext factors_tenure
Know seeking_awareness
Know seeking_how-to
Know seeking_principles
Seeking knowledge from peers
Seeking vicarious experience using cases
Self concern prioritized over concern for students
Self efficacy_high
Self efficacy_low
Self efficacy_med
Trying cases on a small scale

Appendix C:

Final list of categories, generated in Phase 2 of qualitative data analysis

Accommodating knowledge of case studies
Adopting case study as is
Affordances_administrators
Affordances_culture
Affordances_curriculum
Affordances_institution
Affordances_tenure.promotion
Affordances_top down promotion
Awareness Knowledge_Grad School
Barr_administrators
Barr_assessment
Barr_classroom management
Barr_content coverage
Barr_culture
Barr_curriculum
Barr_discipline
Barr_faculty buy-in
Barr_funding for professional development
Barr_funding for technology
Barr_institutional
Barr_physical space
Barr_politics
Barr_relative disadvantage
Barr_student buy-in
Barr_tenure.promotion
Barr_time
Barr_uncertainty about reception by colleagues and/or admin
Barr_variable case quality
Beliefs
Beliefs_relevant to barriers
Beliefs_relevant to perceptions of outcomes
Col_colleague attitude_don't care
Col_colleague attitude_negative
Col_colleague attitude_supportive
Col_colleague interactions_co-instructors collaborated
Col_colleague interactions_I've seen them using cases
Col_colleague interactions_none yet
Col_colleague interactions_not useful
Col_colleague interactions_part promoted to colleagues
Col_colleague interactions_useful sharing
Col_use case studies
Compatibility
Complexity

Custom_adapting
Custom_lack of cust causes problems
Custom_reinventing
Custom_writing new cases
Data convinces instructors to change
Def_anything but lecture
Def_Apply content
Def_critical thinking
Def_Figure out
Def_making connections among concepts
Def_problem
Def_Real-life scenario
Def_story
Desiring a network of case study users
Endorsement by a trusted person leads to positive attitude energized
Expert knowledge on how people learn
Ext factors
How will you know if you're effective
I've naturally taught this way
I've read some literature
I want practice
I want to see others using cases _Seeking vicarious
If other people can do it, so can I
Institutional description
It's only anecdotal, but
Know seeking_awareness-new ideas
Know seeking_principles
Know_How do others...
Know_how do you integrate labs and classes
Know_how to assess
Know_how to keep students accountable in group work
Know_how to lead discussions
Know_how to make it work in the classroom
Know_how to match delivery and topic
Know_how to put more math in
Know_how to set up groups
Know_how to use cases as the primary strategy for delivering content
Know_how to use cases online
Know_how to use cases to make connections throughout a semester
Know_how to write cases
Know_how to write the syllabus differently
Know_is there a better way than reading to my students
Lecturing boring
Motiv_Case studies fill need for materials
Motiv_Change in response to dissatisfaction

My experience trumps research
Rel_adv_active_ not just listening
Rel_adv_broad or vague
Rel_adv_critical thinking
Rel_adv_depth
Rel_adv_engaged
Rel_adv_ethics
Rel_adv_fun for instructor
Rel_adv_group discussion
Rel_adv_nature of science
Rel_adv_real world application
Rel_adv_story
Rel_adv_student responsibility
Self concern prioritized in teaching decisions
Self efficacy_high
Self efficacy_low
Self efficacy_med
Skeptical
Student learning prioritized in teaching decisions
Students say I like it
Teacher reports intuition that it works
Teacher reports student engagement
Teacher reports student learning
Teacher reports student learning: quantitative evidence
Tried and revised



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August 11, 2014

Dr. Debra Tomanek
CBE-LSE Monitoring Editor

Dear Dr. Tomanek,

I have been in correspondence with Paula Lemons about the Andrews' and Lemons' paper, *It's personal: Biology instructors prioritize personal evidence over empirical evidence in teaching decisions*. As the Co-Director for the National Center for Case Study Teaching in Science, I maintain records about the number of users of, and visits to, our case library and website, as well as the number of individuals who have participated in professional development opportunities we offer. I give my permission for Andrews and Lemons to cite these numbers in the text of their paper.

Sincerely,

A handwritten signature in black ink that reads "Nancy A. Schiller". The signature is written in a cursive, flowing style.

Nancy A. Schiller
Co-Director, National Center for Case Study Teaching in Science
University at Buffalo, State University of New York