

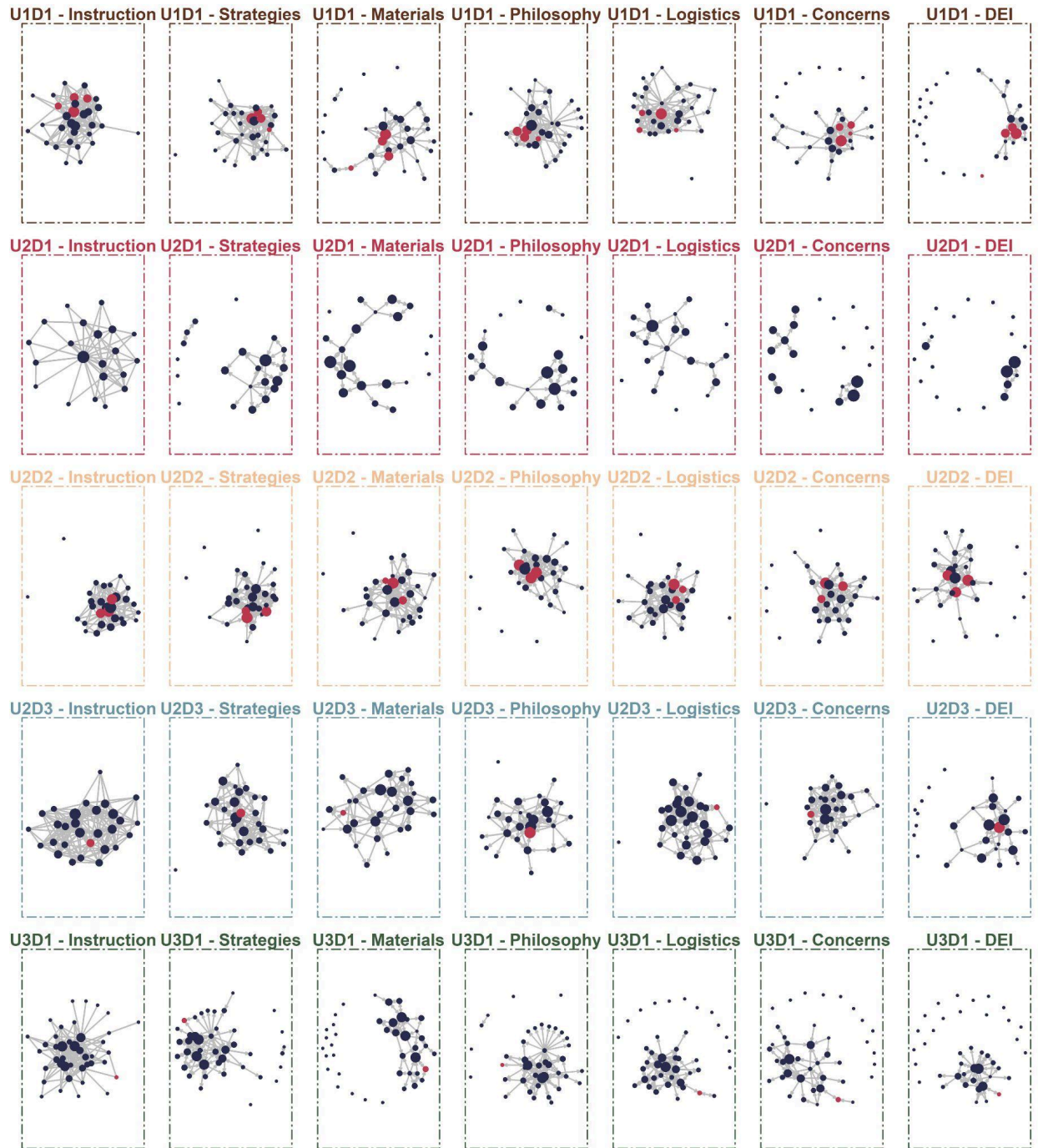
# Supplemental Material

*CBE—Life Sciences Education*

Wilton *et al.*

# Supplemental Materials

## Supplemental Figure



**Supplemental Figure 1.** Sociographs of general discussion as well as domains of pedagogy and instruction influence networks for each of the five STEM departments. Nodes (circles) represent individual faculty members where larger node sizes correspond to more edges (grey

lines indicative of an individual being nominated as influential) directed to the individual (more influential). Color of the node denotes research track faculty (blue) or teaching professor (red).

## **Survey Instrument**

## UCSB SNA Cover Page



UCSB is participating in an NSF-funded research project that seeks to explore faculty interactions in STEM departments.

The following survey consists of three sections that focus on:

- 1) Your attitudes towards instructional approaches;
- 2) A network of individuals with whom you discuss instructional duties;
- 3) Your perspectives on personal change.

All responses will be kept completely confidential.

This survey should take approximately 10 minutes. We sincerely value your time and thank you for participating in this NSF-funded survey.

This study is considered to be human subjects research, and it has been approved by our campus' IRB. If you have questions, here is the [Study Information Sheet](#) for this project.

All data will be completely de-identified prior to presentation or publication. If you agree to allow your survey responses to be analyzed for research purposes select your name below and continue the survey.

Q33 Please select your name from the drop-down menu.

▼ First Faculty Name (#1) ... Last Faculty Name (#37)

Q18 If your name does not appear above, please enter your first and last name here:

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End of Block: UCSB SNA Cover Page

Start of Block: Prosser 2006 Modified ATI March 24 2020

Q36 Part 1/3

In relation to your largest enrollment lecture course, please select one of the five options for each item.

Rarely: This item is only rarely true for me in my teaching experience.

Sometimes: This item is sometimes true for my teaching experience.

About half the time: This is true for me about half the time in my teaching experience.

Frequently: This item is frequently true for me in my teaching experience.

Always: This item is always true for me in my teaching experience.

Q37 I feel that the assessment in this subject should be an opportunity for students to reveal their changed conceptual understanding of the subject

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q38 I encourage students to restructure their existing knowledge in terms of the new way of thinking about the subject that they will develop

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q39 I feel that it is better for students in this subject to generate their own notes rather than always copy mine

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q40 I feel a lot of teaching time in this subject should be used to question students' ideas

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q41 In my interactions with students in this subject I try to develop a conversation with them about the topics we are studying

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q42 I set aside some teaching time so that the students can discuss, among themselves, the difficulties that they encounter studying this subject

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q43 In teaching sessions for this subject, I use difficult or undefined examples to provoke debate

Only Rarely (1)

Sometimes (2)

About half the time (3)



Frequently (4)

Always (5)

Q44 I make available opportunities for students in this subject to discuss their changing understanding of the subject

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Page Break

Q45 I feel it is important that this subject should be completely described in terms of specific objectives relating to what students have to know for formal assessment items

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q46 I feel it is important to present a lot of facts to students so that they know what they have to learn for this subject

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q47 I think an important reason for running teaching sessions in this subject is to give students a good set of notes

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q48 I feel that I should know the answers to any questions that students may put to me during this subject

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q49 I design my teaching in this subject with the assumption that most of the students have very little useful knowledge of the topics to be covered

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q50 In this subject I concentrate on covering the information that might be available from a good textbook

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q51 I structure this subject to help students to pass the formal assessment items

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

Q52 When I give this subject, I only provide the students with the information they will need to pass the formal assessments

Only Rarely (1)

Sometimes (2)

About half the time (3)

Frequently (4)

Always (5)

End of Block: Prosser 2006 Modified ATI March 24 2020

Start of Block: Block 1

Q7 Part 2/3

We are interested in understanding how interactions among colleagues influence instructional approaches. Further, we are interested in how the breakout of COVID-19 and the resulting shift may have influenced interactions about instruction.

In the list of the names below, please select colleagues in your department that you have directly interacted with regarding teaching over the past year. For each colleague, select whether you had any interactions with about instruction prior to the COVID-19 pandemic ("Prior to COVID-19") and/or subsequent to the COVID-19 pandemic and resulting shift to online instruction ("After COVID-19"). If the name(s) of the individual(s) you would like to select is/are not present, please select and fill in the "Others" text box with the *name and position* of the individual. Please only include colleagues who are faculty or administrator in another department or unit on campus.

	Prior to COVID-19 (1)	After COVID-19 (2)
Faculty Name 1 (43)	<input type="checkbox"/>	<input type="checkbox"/>
Faculty Name 2 (44)	<input type="checkbox"/>	<input type="checkbox"/>
Faculty Name 3 (45)	<input type="checkbox"/>	<input type="checkbox"/>
Faculty Name 4 (46)	<input type="checkbox"/>	<input type="checkbox"/>
Faculty Name 5 (47)	<input type="checkbox"/>	<input type="checkbox"/>
Faculty Name 6 (48)	<input type="checkbox"/>	<input type="checkbox"/>
Faculty Name 7 (49)	<input type="checkbox"/>	<input type="checkbox"/>

Faculty Name 8 (50)	<input type="checkbox"/>	<input type="checkbox"/>
...	<input type="checkbox"/>	<input type="checkbox"/>
Last Faculty Name (52)	<input type="checkbox"/>	<input type="checkbox"/>
Other (name & position): (x80)	<input type="checkbox"/>	<input type="checkbox"/>
Other (name & position): (x81)	<input type="checkbox"/>	<input type="checkbox"/>
Other (name & position): (x82)	<input type="checkbox"/>	<input type="checkbox"/>
Other (name & position): (x83)	<input type="checkbox"/>	<input type="checkbox"/>
Other (name & position): (x84)	<input type="checkbox"/>	<input type="checkbox"/>

End of Block: Block 1

Start of Block: Block 2

Carry Forward Selected Choices from "Part 2/3We are interested in understanding how interactions among colleagues influence instructional approaches. Further, we are interested in how the breakout of COVID-19 and the resulting shift may have influenced interactions about

instruction. In the list of the names below, please select colleagues in your department that you have directly interacted with regarding teaching over the past year. For each colleague, select whether you had any interactions with about instruction prior to the COVID-19 pandemic ("Prior to COVID-19") and/or subsequent to the COVID-19 pandemic and resulting shift to online instruction ("After COVID-19"). If the name(s) of the individual(s) you would like to select is/are not present, please select and fill in the "Others" text box with the name and position of the individual. Please only include colleagues who are faculty or administrator in another department or unit on campus."

Q9 For each of the individuals you interacted with regarding teaching **prior to the COVID-19** outbreak, please indicate if and how they have influenced your teaching

*Philosophy* - Influenced your teaching philosophy and how you understand teaching in general

*Strategies* - Helped you implement a specific teaching strategy, e.g. iClickers, classroom discussions, etc.

*Logistics* - Discussed teaching assignment logistics, e.g. time, location, exam times, grading, TA assignments, etc

*Materials* - Shared instructional materials with you, e.g. slides, syllabi, previous exams, etc.

*Concerns* - Helped you address student concerns or issues

*DEI* - Discussed issues of diversity, equity, and inclusion in undergraduate classrooms

Teaching Philosophy (1)	Teaching Strategies (2)	Teaching Logistics (3)	Teaching Materials (4)	Teaching Concerns (5)	DEI (6)	Not Influential (9)
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Faculty  
Name 1  
(43)

Faculty  
Name 2  
(44)

Faculty  
Name 3  
(45)

Faculty  
Name 4  
(46)

Faculty  
Name 5  
(47)

Faculty  
Name 6  
(48)

Faculty  
Name 7  
(49)

Faculty  
Name 8  
(50)



Page Break

Q53 Below, ***in the context of the COVID-19 pandemic***, briefly list the topics of discussion regarding instruction and/or assessment that you have had with your colleagues at UCSB.

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End of Block: Block 2

Start of Block: KoP Implicit Theory Scale

Q56 Part 3/3

Please indicate the extent to which you agree or disagree with each of the following statements.

Q57 The kind of person someone is, is something very basic about them, and it can't be changed very much.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Somewhat agree (4)
- Agree (5)
- Strongly agree (6)

Q58 People can do things differently, but the important parts of who they are can't really be changed

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Somewhat agree (4)
- Agree (5)
- Strongly agree (6)

Q59 Everyone, no matter who they are, can significantly change their basic characteristics.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Somewhat agree (4)
- Agree (5)
- Strongly agree (6)

Q60 As much as I hate to admit it, you can't teach an old dog new tricks. People can't really change their deepest attributes.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q61 People can always substantially change the kind of person they are.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q62 Everyone is a certain kind of person, and there is not much that can be done to really change that.

Strongly disagree (1)

- Disagree (2)
- Somewhat disagree (3)
- Somewhat agree (4)
- Agree (5)
- Strongly agree (6)

Q63 No matter what kind of person someone is, they can always change very much.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Somewhat agree (4)
- Agree (5)
- Strongly agree (6)

Q64 All people can change even their most basic qualities.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Somewhat agree (4)
- Agree (5)
- Strongly agree (6)

Page Break

End of Block: KoP Implicit Theory Scale

Start of Block: Block 3

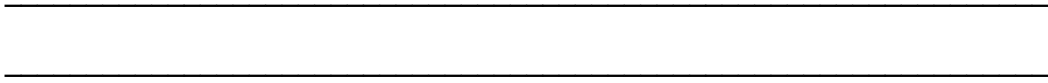
Q11 Do you have any other comments or thoughts on how colleagues may influence your teaching, or how you feel you may influence the teaching of your colleagues?

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End of Block: Block 3