



Form for submitting extended proposals
for consideration for the
**2021 ROBERT J. MENGES AWARD FOR OUTSTANDING RESEARCH
IN EDUCATIONAL DEVELOPMENT**

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SESSION TITLE:	Tracking the Transfer of Research-Based Instructional Social Presence Practices
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Does the research described herein involve human subjects (highlight one): yes no
If yes, submit under separate cover documentation that indicates IRB approval.

1. RESEARCH QUESTION(S) & WHY THEY ARE IMPORTANT TO THE FIELD:
<p>Strong faculty-student and student-student relationships promote academic success in online and in-person classrooms (e.g., Garrison et al., 2000; Catt et al., 2007; Mayhew et al., 2016; Glazier et al., 2016; Cavanagh et al., 2018). These relationship building instructional practices are integral to creating supportive environments that inspire student trust and motivation, leading to transfer and retention of the target content, regardless of the course modality (Bransford et al., 2000, pp. 60-61; Felten & Lambert, 2020). We deemed essential that our teaching and learning center target social presence practices in our summer course design institute as students and faculty experienced the pandemic-induced stress and isolation of online teaching and learning throughout the transition to remote instruction</p> <p>Sixty instructors in two cohorts of various ranks and disciplines explored strategies and learning objects during the 4-week summer institute, which included biweekly deliverables on major course</p>

design components, such as an Instructional Strategies Plan, Syllabus Tune-Up, and Module Map. Our programming focused on providing faculty with research-based strategies and meaningful learning objects that could be immediately implemented in their target redesign courses and future course planning and instruction.

We aimed to document the transfer of evidence-based instructional practices as well as the significance of practical and accessible learning objects that require minimal preparation and promote relationship-building practices to minimize the disconnectedness of online teaching and learning. We asked:

- (How) have faculty increased their self-efficacy in implementing evidence-based practices that enhance social presence in the online classroom?
- Has the faculty member's self-efficacy increased post-implementation of the course design strategies?
- How has the implementation of evidence-based course design practices impacted the student experience in these courses?

WORD COUNT

270

2. DESCRIPTION OF RESEARCH DESIGN:

We identified these data points:

- a comprehensive pre / post survey including quantitative and qualitative questions administered before the institute and after the Fall 2020 semester, which blended questions from the Teaching Practices Inventory (TPI) (Wieman & Gilbert, 2014), and the Community of Inquiry survey (Arbaugh et al., 2008).
- a post-institute self-evaluation conducted after completing all institute deliverables,
- mid-semester student feedback data

The original TPI (Wieman & Gilbert, 2014) includes 72 items organized into 8 instructional categories. To target the Institute's objectives and document the transfer of social presence skills, we

adapted the original survey to include social presence strategies (Appendix A). The modified TPI included 5 categories (i.e. “Course Information,” “Online Course Content,” “Course Activities Prior to Class,” “Class Activities,” and “Feedback”). We followed the original scoring methodology of calculating the “extent of use of research-based teaching practices score (ETP)” (Wieman & Gilbert, 2014, p. 556), yet modified to fit the added social presence practices, resulting in an ETP score of 32. Faculty completed the edited TPI in the pre-institute survey and post-implementation of their redesigned courses.

We adapted the Community of Inquiry survey (Arbaugh, et al., 2008) to target the faculty perspective, by altering the language to first person (i.e., “The instructor” to “I”) and removing items (N=3/34) that did not align with the Institute’s objectives, such as questions that document the students’ preference for online courses (Appendix A). Faculty in the Institute responded to the 31 item survey using the original 5-point Likert-type response scale prior to the start of the Institute and after implementing their redesigned courses.

Central to this study is the documentation of the faculty’s increase in self-efficacy as it relates to transfer of skills and sustainability of implementation through multiple data points and perspectives. We included the student perspective of the transfer of evidence-based instructional practices via de-identified student feedback comments (Appendix A) from mid-semester feedback sessions in 50 unique courses.

WORD COUNT

318

3. LITERATURE REVIEW & THE RELATIONSHIP OF THE LITERATURE TO YOUR RESEARCH QUESTION(S):

Scholarly explorations chronicle the success of assisting the student in feeling engaged via intentional and meaningful interactions (e.g., Garrison et al., 2000, Schoem, 2017, Felten & Lambert, 2020). For instance, within the Community of Inquiry (CoI) model, which outlines how learning takes place via cognitive, teaching, and social presence (Garrison & Anderson, 2003), the positive impact of the social presence component has been widely documented in online courses (e.g., Garrison et al.,

2000; Lowry et al., 2006; Richardson et al., 2017). Garrison et al. (2000, p. 89) describe social presence as students' ability to engage in the community of learners and the community's impact on developing critical thinking skills. Lowry et al., (2006) highlight personal connection, group cohesion, and open communication, and its importance within successful student groupings as key components of social presence.

Outside of the Col model, other scholars have argued for the inclusion of a community of learners within course design. In their influential seven principles of "good teaching" grounded in decades of research in higher education, Chickering and Gamson (1987) encourage contact between faculty and students. In addition to other community-building practices, Chickering and Gamson (1987) recommend checking in with students to see how they are doing, facilitating in-class small group discussions, and providing mentors within the university community. In Schoem's (2017) investigation aimed at identifying instructional practices to reach the "whole student," he coined the term "relational teaching" to refer to community building and "honoring each individual student as a unique, extraordinary person" (Schoem, 2017, p.81). Similarly, Felten and Lambert (2020) underscore the importance of classroom and institutional implementation of relationship-building practices, noting that "relationships are the beating heart of the undergraduate experience" (Felten & Lambert, 2020, p.1).

In addition to the scholarly works, empirical studies have documented the importance of relationship-building practices in specific instructional scenarios, such as the role of efficient communication in productive team and group work (Chang & Brickman, 2018) and the effect of introductory discussions in building strong instructor to student relationships (Martin & Bolliger, 2018). Looking at course and assignment design, Mary-Ann Winkelmes and her team have extensively investigated the role of transparency in promoting equitable student academic success, targeting underserved student populations (Winkelmes et al., 2016; Howard et al., 2020). In their investigation of the COVID-19 instructional scenario, Petillion and McNeil (2020) report that transparent communication and instructor availability can alleviate the stress and anxiety caused by the pandemic and, thus, are integral to student success in remote learning.

Taking into account the descriptions of social presence and relationship-building practices, as well as the remote teaching situation imposed by the pandemic, we broadly defined social presence as any strategy that assists students in feeling engaged and connected with each other, the instructor,

and the content. Therefore, the fundamental components of our 2020 Institute included intentional communication strategies and the implementation of varied engagement opportunities, alongside other effective instructional strategies, such as consistent course structure (Vrasidas & McIsaac, 1999) and transparency (Winkelmes et al., 2016; Howard et al., 2020), to promote student success in online, and ultimately, in-person courses.

WORD COUNT

508

4. FINDINGS, INCLUDING THEIR SIGNIFICANCE & LIMITATIONS:

RQ1.

Following the original TPI (Wieman & Gilbert, 2014), we calculated the extent of use of research-based teaching practices score (ETP) aiming at tracking an increase in the ETP score from pre- to post-implementation of the redesigned course, as well as a shift in the use of individual teaching practices. Our survey indicated a significant increase, $t(37) = 6, p < .001$, in the use of evidence-based instructional practices from pre-institute ($M=9.36, SD=4.4$) to post-implementation of the redesigned course ($M = 14.1, SD = 3.6$). Descriptively, we witnessed an average increase in ETP score of 4.7 for all faculty, 4 for STEM disciplines, and 5.3 in other disciplines (Table 1, Appendix B). Graph 2 illustrates this shift in faculty's use of evidence-based instructional practices by score ranges, highlighting the increase in score range post-implementation of the target courses.

To identify increase in individual strategy use, we investigated several themes: "Engagement Opportunities," "Feedback," and "Course Communication." In Appendix B, the figures illustrate a shift in use of these strategies by TPI score range, while Table 2 lists the strategies that increased in use. The largest increase in strategy use was in communicating course and module-level goals, including competencies (e.g., non-topic related skills such as critical thinking and problem solving) and affective goals (e.g., changing students' attitudes and beliefs), under the theme of "Course Communication (Figure 4)." "Engagement Opportunities," (Figure 2), exhibited the smallest increase in use, highlighting an area of improvement for our future development opportunities.

Breaking down the results by individual instructional strategy not only offers insight on which evidence-based practices were used to enhance social presence in the online classroom but also supports future faculty development initiatives by identifying the more meaningful components and learning objects of the Institute. We claim from the first research question, faculty increased their use of social presence practices, specifically by frequent communication with students or virtual office hours, transparency with instructor expectations and course, module, and assignment-level goals, and multiple opportunities for feedback.

RQ2.

Results of a non-parametric Mann-Whitney test of the quantitative data demonstrated a significant increase in faculty's self-efficacy in several key areas, including those that build a positive course climate, such as within the "Affective Expression," "Open Communication," and "Group Cohesion," identified by the Community of Inquiry (Arbaugh et al., 2008) survey. Faculty felt more confident communicating via online tools and leading online discussions within their courses (Table 4). Qualitative data from the self-efficacy post-institute survey were compared to similar questions on the post-semester implementation survey to confirm the impact and initial implementation of relationship-building practices gleaned from the Institute. Specifically, faculty reported confidence in effectively communicating online and generally developing social presence (Table 5).

RQ3.

Our final data point included aggregated, anonymized mid-semester student feedback data collected in Fall 2020. We coded 748 comments, which were responses to the question “What is working well in this course?” (Table 6). We identified 5 axial codes, representing larger categories that emerged from the data, such as “Instructional Delivery,” “Transparent Assignments and Course Information,” or “Engagement with Content and Peers.” Within these broader categories, we identified 22 selective codes, or subcategories, that depict instances of the axial codes, such as “keeping students up to date with due dates.” We noted 1149 instances of these selective codes. These categories align not only with the thematic results of the TPI but also with the qualitative faculty responses on the post-implementation survey. For instance, students identified the instructor’s communication and transparency of assignments, such as the overall consistent messaging, as beneficial to their learning experience, which was an area of improvement in the TPI survey. Thus, the student perspective highlights the transfer of social presence practices and that social presence practices are essential to a positive course climate.

Limitations

While the study draws connections between the instructor and students’ perspective regarding the transfer of skills targeted within the Institute, specifically those that reinforce social presence practices, there were some limitations to this documentation. First, the student feedback coding represented one of three questions of our mid-semester survey. Future studies will also incorporate student suggestions for improvement to the learning environment. Additionally, a comparison of traditional end of semester teaching evaluations, pre and post Institute, could shed additional light. Second, the adaptations to the TPI are grounded in evidence-based strategies, yet this instrument should be tested with additional faculty development initiatives to ensure reliability. To address these limitations, future research will incorporate additional surveys and coded data, as well as identify opportunities to replicate this study in upcoming faculty development initiatives.

Implications

Tracking the success of the transfer of social presence and evidence-based strategies from the Summer Institute to the implementation of the redesigned course underscores the importance of

creating and sharing practical learning objects, such as module or syllabus templates or the instructional strategies plan, to facilitate the implementation and increase faculty self-efficacy of these skills. Specifically, we witnessed an increase in relationship-building practices, such as communication strategies (e.g., messaging, transparency of expectations and goals) and engagement opportunities (e.g., use of introductory discussion forums), highlighted in the literature (e.g., Lowry et al., 2006; Martin & Bolliger, 2018). Ultimately, our study documents the transfer of skills that are integral to alleviating the stress of the ongoing pandemic (Petillion & McNeil, 2020) and the efficacy of our programming through multiple data points and diverse voices.

WORD COUNT
895

TOTAL WORD COUNT FOR ALL 4 SECTIONS (MAX 2000 WORDS): 1991

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Appendix A | Survey Instruments

Teaching Practices Inventory (adapted from Wieman and Gilbert (2014))

TPI Question	Responses (select all that apply)	Score
What course information was provided to students	<input type="checkbox"/> Syllabus	0
	<input type="checkbox"/> Course Goals (topic-specific competencies/skills "Students should be able to...")	3

via Canvas during Fall 2020?	<input type="checkbox"/> Module/Chapter Goals (topic-specific competencies/skills "Students should be able to...")	3 ^a
	<input type="checkbox"/> List of competencies that are not topic related (critical thinking, problem-solving)	1
	<input type="checkbox"/> Affective Goals - changing students' attitudes and beliefs (interest, motivation, relevance, beliefs about their competencies, how to master the material)	1
	<input type="checkbox"/> Instructor and student expectations (e.g., How to be successful in this course)	0 ^b
	<input type="checkbox"/> Student support services (e.g., academic, well-being, and emotional support)	0
	<input type="checkbox"/> Course Meeting Information	0
	<input type="checkbox"/> I prefer not to answer.	0
	<input type="checkbox"/> Other course information, please specify	0
What course content was provided to students via Canvas during Fall 2020?	<input type="checkbox"/> Assigned readings followed by a low-stakes (e.g., reading check) quiz	1
	<input type="checkbox"/> Assigned readings not followed by a low-stakes (e.g., reading check) quiz	0
	<input type="checkbox"/> Mini-lecture/short content videos with embedded quizzing (e.g., via Panopto)	1
	<input type="checkbox"/> Mini-lecture/short content videos without embedded quizzing	0
	<input type="checkbox"/> Full length lectures (e.g., >30 minutes) recorded via Zoom (or another tool) followed by an engagement activity	1
	<input type="checkbox"/> Full length lectures (e.g., >30 minutes) recorded via Zoom (or another tool) not followed by an engagement activity	0
	<input type="checkbox"/> I prefer not to answer.	0
	<input type="checkbox"/> Other, please specify	0
What content/activities were the students required to complete PRIOR to attending your Fall 2020 virtual class session?	<input type="checkbox"/> Students were asked to read/view the material before class.	0
	<input type="checkbox"/> Students were asked to read/view the material before class and took a brief reading check quiz either prior to the synchronous session or during the synchronous session.	2
	<input type="checkbox"/> Students were asked to complete and upload a problem set before class.	2
	<input type="checkbox"/> Students were asked to complete a problem set before class and could revise the problem set during class to be uploaded after class.	2
	<input type="checkbox"/> Students did not have to complete an activity before class.	0

	<input type="checkbox"/> I prefer not to answer.	0
	<input type="checkbox"/> Other, please specify	0
What course activities were implemented via Canvas during Fall 2020?	<input type="checkbox"/> Discussion forums with little or no contribution to you	0
	<input type="checkbox"/> Discussion forums with significant contribution from you	1
	<input type="checkbox"/> Discussion forums with introduction posts (e.g., a post with some information about who you are as a person) with contributions from you and the students	1 ^c
	<input type="checkbox"/> Discussion forums in groups	1
	<input type="checkbox"/> Low-stakes quizzes to check for understanding, accountability, student interest, etc. (e.g., via quizzes in Sakai/Canvas)	2
	<input type="checkbox"/> High-stakes quizzes (e.g., weekly/chapter/unit quizzes)	0 ^d
	<input type="checkbox"/> Peer review (via Canvas or another online tool (e.g., Google Docs))	1 ^e
	<input type="checkbox"/> Social annotation activities (e.g., via Perusall or hypothes.is)	1 ^f
	<input type="checkbox"/> I prefer not to answer.	0
	<input type="checkbox"/> Other, please specify	0
How did you give feedback to students?	<input type="checkbox"/> Assignments with feedback before grading or with opportunity to redo work to improve grade	2
	<input type="checkbox"/> Students see graded assignments	1
	<input type="checkbox"/> Students see assignment answer key and/or grading rubric	1
	<input type="checkbox"/> Students see their graded midterm exam(s)	1
	<input type="checkbox"/> Students see midterm exam(s) answer keys	1
	<input type="checkbox"/> Students receive verbal feedback during small group activities in-class (e.g., during breakout rooms or face-to-face activities)	1
	<input type="checkbox"/> Students receive frequent feedback via a student response system	0
	<input type="checkbox"/> Students encouraged to meet with me	1
	<input type="checkbox"/> I prefer not to answer.	0
	<input type="checkbox"/> Other, please specify	0
<i>Total</i>		32

^a (Ericsson, Krampe, Tesch-Römer, 1993)



^b (Winkelmes, et al., 2016); This selection was not included in the pre-survey, and, thus, was given a numerical value. In future iterations, this selection will be worth 1 point.

^c (Dixson, 2010, 2015; Glazier et al., 2016; Richardson et al., 2017; Martin & Bolliger, 2018; Chang & Brickman, 2018)

^d Since our version of the TPI did not include questions on grade percentages, this response did not receive any points.

^e (Dixson, 2010, 2015; Richardson et al., 2017; Martin & Bolliger, 2018)

^f (Dixson, 2010, 2015; Glazier et al., 2016; Richardson et al., 2017)

Community of Inquiry Instrument (Arbaugh et al., 2008)

Design & Organization

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I clearly communicate important course topics.	<input type="radio"/>				
I clearly communicate important course goals.	<input type="radio"/>				
I provide clear instructions on how to participate in course learning activities.	<input type="radio"/>				
I clearly communicate important due dates/time frames for learning activities.	<input type="radio"/>				



Facilitation

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I am helpful in identifying areas of agreement and disagreement on course topics that helped students learn.	<input type="radio"/>				
I am helpful in guiding the class towards understanding course topics in a way that helped students clarify their thinking.	<input type="radio"/>				
I help to keep course participants engaged and participating in productive dialogue.	<input type="radio"/>				
I help keep the course participants on task in a way that help students learn.	<input type="radio"/>				
I encourage course participants to explore new concepts in this course.	<input type="radio"/>				
I reinforce the development of a sense of community among course participants.	<input type="radio"/>				

Direct Instruction

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I help to focus discussion on relevant issues in a way that help students learn.	<input type="radio"/>				
I provide feedback that help students understand their strengths and weaknesses relative to the course's goals and objectives	<input type="radio"/>				
I provide feedback in a timely fashion	<input type="radio"/>				

Affective Expression

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I create pathways for students to develop a sense of belonging in the course.	<input type="radio"/>				
I make use of the online or web-based tools to enhance communication and social interaction.	<input type="radio"/>				



Open Communication

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I feel comfortable conversing through the online medium.	<input type="radio"/>				
I feel comfortable participating in the course discussions.	<input type="radio"/>				
I feel comfortable interacting with other course participants.	<input type="radio"/>				

Group Cohesion

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I feel that the students are comfortable disagreeing with other course participants while still maintaining a sense of trust.	<input type="radio"/>				
I feel that the students' points of view are acknowledged by other course participants.	<input type="radio"/>				
I believe that the online discussions help students to develop a sense of collaboration.	<input type="radio"/>				

Triggering Event

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I pose problems that increase students' interest in course issues	<input type="radio"/>				
I develop course activities to pique students' curiosity.	<input type="radio"/>				
I motivate students to explore the content related questions	<input type="radio"/>				

Exploration

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I encourage students to utilize a variety of information sources to explore problems posed in this course.	<input type="radio"/>				
I make space for students to brainstorm and find relevant information to resolve content related questions.	<input type="radio"/>				
I believe that the online discussions were valuable in helping students appreciate different perspectives.	<input type="radio"/>				



Integration

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I help students combine new information to answer questions raised in course activities.	<input type="radio"/>				
I develop learning activities to construct explanations/solutions.	<input type="radio"/>				
I require reflection on course content and discussions to help students understand fundamental concepts in this class.	<input type="radio"/>				

Resolution

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The learning activities in this course help students to be able to apply the knowledge created in this course to work or other non-class related activities.	<input type="radio"/>				

Mid-semester Student Feedback

The Small Group Instructional Feedback (SGIF) is one form of early feedback that is designed to channel student perceptions into opportunities for instructional improvement. In Fall 2020, faculty selected from an online questionnaire or a synchronous online focus group to gather student experience feedback on their courses.

Synchronous Online Version

The students individually respond to three questions about how the course is going via a link shared in the course learning management system (Canvas). Then, a consultant from the teaching and learning center visits the class via Zoom to facilitate small group discussion via breakout rooms. During the small group discussion, students rank their responses to the original three questions. Then, in whole group, the facilitator debriefs the students' rankings and identifies trends in the students' comments. Finally, the consultant summarizes the results and provides actionable recommendations and feedback to the instructor.

Online Version

The students respond to an online questionnaire, which includes three questions about how the course is going via a link shared in the course learning management system (Canvas). The results from the questionnaire are summarized and to provide actionable suggestions and feedback to the instructor.

Questionnaire:

- **What is going well in this class so far?**
- **Do you have specific suggestions that could improve your learning?**

- What other comments do you have about the learning environment?

Appendix B | Tables and Figures

Table 1

Increase in Average ETP Score (t(37) = 6, p = <.001)

	Average ETP	SD	Average increase in ETP	SD	Total Faculty
Pre-SI	9.4	4.5	4.7	4.6	38
Post-SI	14.1	3.6			
<i>STEM Faculty</i>					
Pre-SI	10.1	4.1	4	4.8	17
Post-SI	14.1	3.5			
<i>Non-STEM Faculty</i>					
Pre-SI	8.8	4.8	5.3	4.6	21
Post-SI	14.1	3.8			

Figure 1

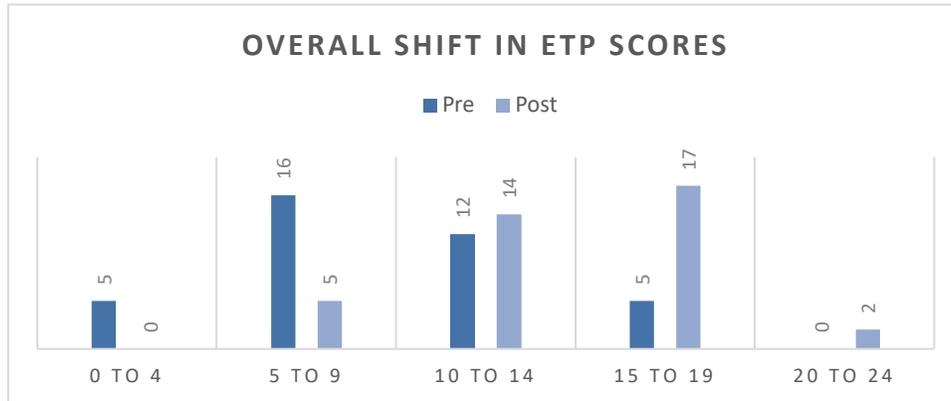


Figure 2

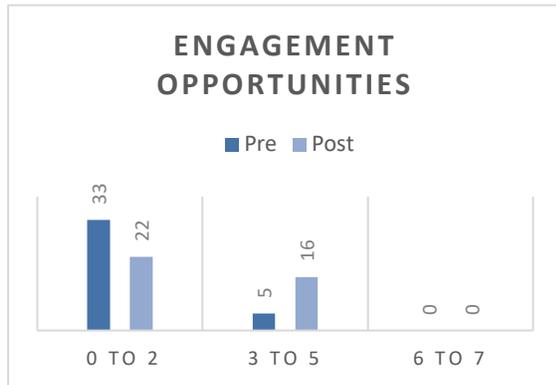


Figure 3

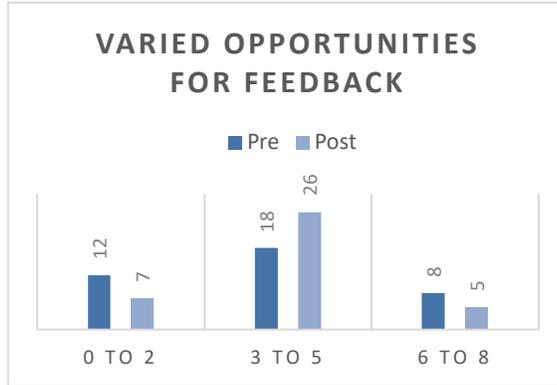


Figure 4

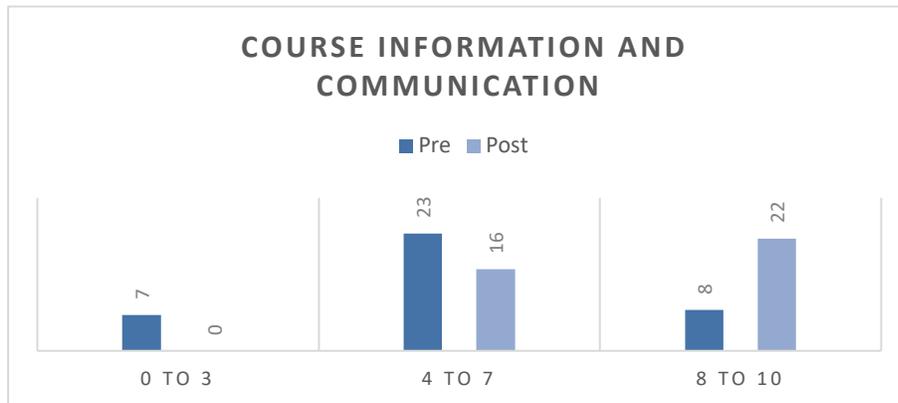


Table 2

Individual Instructional Strategies that Increased in Use Post-Institute

Engagement Opportunities Instructional Practices
<ul style="list-style-type: none"> • Discussion forums with significant contribution from you • Discussion forums with introduction posts • Discussion forums in groups • Low-stakes quizzes to check for understanding, accountability, student interest, etc. • Peer review (via Canvas or another online tool (e.g., Google Docs) • Social annotation activities (e.g., via Perusall or hypothes.is)
Varied Opportunities for Feedback Instructional Practices
<ul style="list-style-type: none"> • Students encouraged to meet with me • Assignments with feedback before grading or with opportunity to redo work to improve grade • Students receive verbal feedback during small group activities in-class (e.g., during breakout rooms or face-to-face activities) • Students see engagement answer key and/or grading rubric

- Students see graded assignments
- Students see their graded midterm exam(s)
- Students see midterm exam(s) answer keys

Course Information and Communication Instructional Practices

- Affective Goals - changing students' attitudes and beliefs (interest, motivation, relevance, beliefs about their competencies, how to master the material)
- Module/Chapter Goals (topic-specific competencies/skills "Students should be able to...")
- List of competencies that are not topic related (critical thinking, problem-solving)
- Used the announcement tool in Canvas to communicate important dates and information
- Course Goals (topic-specific competencies/skills "Students should be able to...")
- Used email to remind students to visit the course webpage for important dates and information

Table 4

Results of COI Pretest and Posttest

COI Instrument Items	Pretest		Posttest		<i>t</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Affective Expression: I make use of the online or web-based tools to enhance communication and social interaction.	3.43	1.068	4.16	.866	-3.873	36	.00
Open Communication: I feel comfortable conversing through the online medium.	3.97	.897	4.30	.618	-2.157	36	.038
Open Communication: I feel comfortable interacting with other course participants.	4.35	.538	4.59	.498	-2.48	36	.018
Group Cohesion: I feel that the students are comfortable disagreeing with other course participants while still maintaining a sense of trust	3.43	.929	3.89	.994	-2.827	36	.008
Group Cohesion: I feel that the students' points of view are acknowledged by other course participants.	3.84	.800	4.14	.855	-2.443	36	.02
Group Cohesion: I believe that the online discussions help students to develop a sense of collaboration.	3.25	.874	3.89	1.063	-3.197	35	.003

Table 5

Results from "Based on your experience in the Summer Institute, in what ways are you a more confident instructor (e.g., consistent module design, lesson planning, communication via audio/visual medium)?"

Qualitative Code	Example Quote
Confidence in using effective online communication	"More considerate of being incredibly clear in my expectations of my students."



Confidence in developing social presence

“I feel more confident building class camaraderie on Zoom and in small groups, as that was one of my major concerns going into the fall term.”

Note. Open coding was applied to participant responses to develop the codes presented on this table.

Table 6

Aggregated, anonymized mid-semester student feedback data collected in Fall 2020

Axial Code	Selective Codes (Subcategories)
Transparency in Assignments & Assessments (232)	Assignments (104)
	Assessments (66)
	Organized Canvas (29)
	Keeping students up to date with due dates (23)
	Feedback on assignments (10)
Engagement with Content & Peers (137)	Optional Zoom for clarity & questions (5)
	Content (46)
	Provides lectures videos to watch at the students’ own pace (39)
	Discussions (25)
	Group work (15)
Instructional Delivery (316)	Use of student response system (e.g., Pear Deck) (12)
	Annotation activities (5)
	Engaging lectures (178)
	Mentioned multiple instructional elements (e.g., “lectures, assignments, readings, quizzes, etc.”) (81)
	Instructional Communication (26)
Instructor (310)	Relevant Examples (26)
	Reflection (5)
	Overall "great at communication" (118)
	Shares desire to see the students succeed (117)
	Responds to emails (33)
	Answers questions and willing to meet (24)
	Organized (18)

Note. The number in parenthesis refers to the number of responses associated with the code. “Everything” also emerged as a code with 154 responses.