

Scholarship of Teaching and Learning Grant Proposal

Improving Peer Observation of Online Teaching in Higher Education

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Abstract

Due to the COVID-19 pandemic, many more faculty are currently teaching online and will continue to teach online courses in the future. Additionally, many of these faculty are on the tenure-track and will require peer observation of teaching as part of their evaluation process. Given the high-stakes associated with this process, better instruments are needed to defend decision-making about quality teaching and support research and evaluation efforts to improve and assess online teaching quality. In this project, researchers will document existing practices in peer observation of online teaching and use concept mapping to build consensus across the variety of instruments that exist both internal to UNC Charlotte and at large research institutions across the country. This information will be used to describe and explore differences in conceptualizing the peer observation process among faculty of different ranks and disciplines. Focus groups with faculty and teaching and learning staff will be utilized to explain the unique perceptions of key dimensions associated with the peer observation process. These efforts will be invaluable in the process of building and refining sound and practical instruments that are inclusive of stakeholders' values. The research will ultimately be useful for improving current instruments used for peer review of online teaching at UNC Charlotte.

Project Narrative

Specific Aims

Purpose and Objectives

The overall purpose of the project is to document existing practices in peer observation of online teaching and use this information to improve current instruments used for peer observation of online teaching at UNC Charlotte.

To accomplish this outcome, the research team has identified three key objectives 1) identify and contrast existing instruments (dimensions and items) used in peer review of online teaching, 2) compare faculty perspectives on the importance of identified domains assessed in peer evaluations of online courses, and 3) perform an analysis of content validity on existing peer review of online teaching instruments at UNC Charlotte.

Project Rationale and Expected Impact

The sudden shift in course delivery modality to a fully online learning environment in response to the COVID-19 pandemic has cemented the perception of online learning as one of the new forms of education. As such, many faculty are currently teaching online and will continue to teach online courses. At UNC Charlotte and many other institutions across the United States, this includes tenure-track faculty who require peer observation of teaching as part of their evaluation process. Based on a recent review of instruments for student evaluations of online teaching, a limited number of instruments are available to evaluate teachers, particularly in the online setting (Sun, Martin, Westine, and Kim, in progress). Furthermore, most of these instruments have been repurposed from existing measures that were developed for face-to-face courses and do not adequately capture the nuances of online teaching. It is anticipated that such a finding will also hold for the peer observation process.

If evaluation-based educational ratings data are used for high stakes decision-making, then more research is needed to support the validity of such measures (Harris, Ingle, & Rutledge, 2014). Better instruments are also needed to support ongoing efforts to improve and assess online teaching quality. Measuring the quality of online teaching through peer observation is an essential step in the cycle of continuous improvement of

online teaching which enables better monitoring of efforts to develop new and existing faculty who teach online. Thus, synthesis research will be used to take stock of existing peer evaluation of online teaching practices across the country. The researchers will also examine perspectives of a diverse group of UNC Charlotte faculty including all ranks and across all colleges on necessary dimensions of quality for online peer observation of teaching. Such breadth will ensure the findings are useful to a wide UNC Charlotte audience and impact the most students. Since all tenure-track faculty are required to participate in a peer observation of teaching (UNCC CATO College of Education, 2021), improvement of instruments related to this practice has the potential to indirectly impact the learning of all students moving forward.

Research Questions

To address the objectives, the following research questions will be addressed:

- 1) What evaluation dimensions are included in peer review of online teaching instruments used at universities?
- 2) What are the faculty perceptions of important online teaching dimensions?
- 3) Do faculty perspectives on the role of the evaluation dimensions vary according to demographic variables (e.g., rank)?

Literature review

The outbreak of COVID-19 resulted in an unexpected transition of American higher education to online during Spring, 2020 (Garris & Fleck, 2020). The rising popularity of online teaching and learning has been calling for valid and reliable measures to ensure and maintain course quality. Information obtained from the evaluation process can help instructors reflect their teaching practices and improve course quality. Several measures have been utilized in higher education to serve this need. Among those, Piña and Bohn (2014), based on the survey results from attendees of the Distance Learning Administration Conference and members of the Association for Educational Communications and Technology (AECT), reported that student evaluations were the most common form of evaluation (89%). Also, supervisor evaluations (47%) and peer evaluations (32%) were also found to be frequent. Peer

observation of teaching is defined in the literature as “a process by which an educator observes the teaching of another educator, with the purpose of providing constructive feedback on the teaching process (Swinglehurst et al., 2008).” Unfortunately, the ever-growing number of online courses offered by higher education institutions has not been accompanied by adequate attention to a fair and systematic evaluation of online teaching and learning practices (Thomas & Graham, 2017; Berk, 2013; Rothman et al., 2011).

Aims of Teaching Observation

According to McMahon, Barrett, and O’Neill (2007), two distinct types of information can be obtained through classroom observations: 1) feedback for improvement of future teaching, and 2) documentation of existing good practices and teaching evaluations. Other researchers have identified more specific objectives for teaching observations including professional development of instructors, evaluation of instructors, feedback about teaching practices, quality assurance, data collection for research (Gosling, 2002; Lawson, 2011; Smith et al., 2013). Often, institutions expect to achieve multiple goals from teaching observations. For instance, the CATO College of Education at UNC Charlotte mandates all untenured faculty members to undergo peer observation and it is specifically documented that “Peer Observations [...] include both formative and summative procedures (UNCC CATO College of Education, 2021).” Despite the distinct types of objectives, only a single observation form has been used to achieve the two goals simultaneously. However, such observation models to serve multiple purposes have been criticized by previous research (Lawson, 2011; O’Leary, 2012; O’Leary & Brooks, 2014; Peel, 2005). In sum, there is a clear need to improve current practices such as developing varying forms or protocols of observation to fully enjoy the benefits of peer observations in teaching.

Uniqueness of Observations for Online Teaching

The first attempt to locate peer observation of teaching into the context of online environments was made by Swinglehurst and colleagues (2008). They investigated the experience and perspectives of twenty-eight instructors residing in the UK. Study results

revealed a consensus among the participants regarding the unique features of online teaching that are clearly distinct from face-to-face teaching, though they struggled to articulate what those unique skills are. Similarly, Bennett and Barp (2008) argued that a direct translation of peer observation designed for face-to-face teaching into online teaching is not tenable due to unique characteristics associated with online teaching and learning. They noted those uniqueness as the distinct nature of observation as being online, the role of the observer in online settings, and factors affecting the effectiveness of peer observation. Unfortunately, despite such novelty, the current practice of peer observation of online teaching is often to simply adopt the observation protocol designed for face-to-face courses (Mahdavi, 2020).

“Online” Teaching Observation Measures

Several attempts have been made to develop a framework that includes requirements for successful teaching observation. However, most of the prior work has primarily focused on face-to-face teaching observation, and unfortunately, the literature on online teaching observation is very scarce. Among few, Shattuck (2013) is one of the few who developed an online teaching observation protocol, although the focus of the study was not to develop an online teaching observation form. A group of study participants were involved to come up with the observation protocol that included five categories of teaching practices including 1) Orienting students to the course and online learning, 2) Managing assessment, 3) Organizing/designing course content, 4) Establishing instructor presence, and 5) Facilitating discussions and building community. Each of these factors was associated with 5-6 items in the observation form. Recently, Mahdavi (2020) developed a protocol for developmental observation of online teaching (DOOT) based on the Community of Inquiry framework. This study identified six key elements as necessary for valid measures of online teaching observation including purposes, process design, definition of observable online teaching, critical reflection, follow up planning, and observers skills and orientation. Although this study outlined the general structure but had some limitations such as collecting data from a single community college. Also, it focused heavily on the general procedure of observation, but less so on development of a specific rubric or an

observation form. Further research is needed to identify key elements of peer observation of online learning and to develop a valid and sound measurement tool.

Methods

Two distinct phases define this project. In phase one we will describe existing practices and assess the broader need for improved peer observation of online teaching instruments. Searching the websites of all R1 and R2 universities based on the most recent Carnegie Classification, we will collect and compare existing instruments from UNCC to other national research universities. The instruments will be emergent-coded by the research team for online teaching dimensions and all items will be compiled into a database for use in phase two.

In the second phase the research team will lead 20 online teaching experts at UNC Charlotte through a concept mapping exercise to reflect on the specific questions asked on instruments and synthesize perceptions of important peer observation dimensions. Concept mapping is a consensus-seeking technique involving a panel of experts. To facilitate the process the researchers will utilize GroupWisdom software. The software integrates the four-step process of gathering data and inputs from participants into one tool (brainstorming, sorting, rating, disaggregating) to enable efficient analysis and reporting. Analysis involving multidimensional scaling and cluster mapping as well as visual reporting of the data is conducted using the software, and will be supplemented with additional qualitative analyses. Use of GroupWisdom will create flexibility and efficiency in virtual data collection for the consensus-seeking process, needed in response to the ongoing pandemic.

The data collection and analysis steps aim to understand not only the dimensions viewed as important to peer review of online teaching, but also explore the differences in the results created by the different types of participants. For this study, four panels will be created (Associate/Full Professors, Assistant Professors, Clinical/Adjunct Professors, and Center for Teaching and Learning staff.) It is anticipated the results of different panel analyses will produce varying attention to dimensions, which will indicate how the various groups value and perceive the role of the instruments. Given that many institutions use ratings from teaching evaluations for faculty promotion or tenure

decisions (Baker et al, 2015), it is important to capture voices from all layers of faculty status. Excluding a certain group of faculty in the discussion potentially leads to faculty resistance to the use of information obtained from the evaluation for their teaching improvement (Vasey & Carroll, 2016). Thus, participants will be asked to participate in focus-group panels to discuss their experience with the peer observation process and refine the emergent framework in conjunction with each other. Incentives for participation is requested at \$1000, \$50 per person for the four panels of size 4-6.

The research team will lead four focus groups defined by rank. Each session will be recorded and transcribed. Cross-case qualitative analysis of the focus groups will help identify differences in the underlying structure/dimensions of the instruments as viewed by each panel and associated rationale. It will also be used to highlight why certain dimensions are more important to each group.

Although the panels will be constructed only from UNC Charlotte, the variety of instruments collected from the synthesis will inform concept mapping and subsequent reflective process. Thus, the project findings will not only be specific to UNC Charlotte. Additionally, the breadth of faculty involvement at UNC Charlotte will ensure that these initial steps which are geared toward improving existing instruments will be useful to the university, but also inform next steps toward generating validity and reliability evidence for these instruments for broader use in the field.

Evaluation

Success of the project hinges upon success at key progress points along the way. Since the steps are interrelated, success at each step along the way is essential. Hence, to increase accountability and add insight, we will engage other faculty from Learning Design, and Technology to help formatively reflect on progress at each key milestone. First, the project is expected to produce a database of peer observation of online teaching instruments used at R1 and R2 universities. Given the similarities, we will use ongoing efforts to examine student evaluations of online teaching as a benchmark for our findings. Next, concept mapping and focus groups participation will necessarily be diverse and span the rank and breadth of the UNC Charlotte colleges. We will continue to recruit participants until this is achieved. Third, the results of

multidimensional scaling from the concept mapping process should yield variability among the participants which can be explored in subsequent focus groups. To ensure variability we will pilot the process internally with the research team and a purposeful collection of faculty that teach online. Fourth, focus groups results require accurately representing the conversations. Although we will record and transcribe sessions, we will also use member-checking to provide a second layer of transparency. Publication of our results constitutes a key criteria for the project's success. While it is expected that efforts to publish will extend beyond the timeframe of the grant cycle, we anticipate having manuscript drafts and presentations to summatively judge progress toward publications.

Knowledge Dissemination

Dissemination efforts will be geared toward informing the UNCC community about faculty's perceptions of the peer observation process, and essential components of reliable and valid evaluation of the peer observation. Also, suggestions for possible revisions on the current form of Peer Observations Forms will be shared with deans and peer observation coordinators for the various UNC Charlotte colleges (e.g., Dr. Malcom Butler, incoming Dean of CATO College of Education, and Dr. Amy Good, the Peer Observation Coordinator). Also, researchers will actively engage in disseminating activities by presenting findings at conferences and generating publications. Specific venues for dissemination will include:

- 1) UNC Charlotte
 - a) Participation in UNC Charlotte's annual SOTL Showcase
 - b) Presentations for faculty and administrators who oversee a peer observation process
- 2) Professional development
 - a) Conferences
 - i) Online Learning Consortium
 - ii) Association for Educational Communications & Technology
 - iii) American Educational Research Association
 - b) Journals

- i) *Online Learning Journal*
- ii) *American Journal of Distance Education*

Human Subjects

A Human Subjects Protocol application for the IRB will be submitted by the beginning of December 2021 if this proposal is approved. To ensure protection of human subjects, UNC Charlotte IRB approval will be sought prior to the data collection.

Extramural Funding

We aim to apply for a larger grant from an external funder like the Spencer Foundation (https://www.spencer.org/grant_types/small-research-grant). This project is a companion study of the external funding project submitted by Drs. Kim (co-PI), Westine (co-PI), and Martin (PI) in September 2021 to the Institute of Education Sciences where researchers proposed to develop and validate a student evaluation of online teaching and learning. We hope to leverage SoTL funding to seek similar external funding.

Project Timeline

Date	Research Activity
12/21	IRB approval
01/22-04/22	Existing Peer Observation Forms Collection Collected Peer Observation Forms Analysis Focus Group Interview Protocol Development
05/22-08/22	Focus Group Interview Data Collection Focus Group Interview Data Analysis
09/22-12/22	Internal and External Knowledge Dissemination
01/23 - 05/23	Final Reports Grant Writing

References

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October 21, 2021

Dear SoTL Committee Members,

I am pleased to offer my support for the SoTL grant proposal, *Improving Peer Observation of Online Teaching in Higher Education*, submitted by Dr. Carl Westine and Dr. Stella Kim. The proposed project has the potential to impact the quality of online teaching and learning in the College of Education and across our campus. The sudden shift in course delivery modality to a fully online learning environment in response to the COVID-19 pandemic has cemented the perception of online learning as one of the new forms of education. As such, many faculty are currently teaching online and will continue to teach online courses. This includes tenure-track faculty who require peer observation of teaching as part of their evaluation process. Unfortunately, current instruments to measure the quality of online teaching are quite limited. Most peer review instruments have been repurposed from existing measures that were developed for face-to-face courses and do not adequately capture the nuances of online teaching. Better instruments are needed to support our efforts to improve and assess online teaching quality.

High quality online teaching is a critical component of the ongoing success of our university as demonstrated by existing efforts to improve the design of courses through *Quality Matters* certification and the support of faculty through the Center for Teaching and Learning. Measuring the quality of online teaching through peer observation is an essential step in the cycle of continuous improvement of online teaching. Improved measures would be a welcomed resource that will enable us to better monitor our efforts to support the development of new and existing faculty that teach online. Dr. Westine and Dr. Kim are committed to engaging a wide variety of faculty of different ranks and from different colleges to inform their efforts. Such breadth will ensure their research to explore methods of assessing dimensions of online teaching are useful to a wide audience here at UNC Charlotte, and position them well to seek additional funding to extend their work.

The proposed project compliments multiple recent collaborative research efforts between Dr. Westine, Dr. Kim, and several other Educational Leadership faculty and students including multiple published and ongoing reviews of online learning research and a federal grant proposal (currently under review) to improve student evaluations of online teaching. Like these other efforts, this research has the potential to impact online teaching and learning in a very positive way, and I am fully supportive of this work.

Sincerely,

A handwritten signature in cursive script that reads 'Teresa Petty'.

Teresa Petty
Interim Dean, College of Education
UNC Charlotte

SoTL Budget Request Page
January 15, 2022 to June 30, 2023

BUDGET: Request by budget category. Joint proposers must select one PI to be the lead and one department to receive this allocation.

Lead Principal Investigator: Carl Westine

Principal Investigator 800#: 801029588

Title of Project: Improving Peer Observation of Online Teaching in Higher Education

Allocate operating budget to Department of: Educational Leadership

Fiscal Year One (January 15, 2022 to June 30, 2022)		
Faculty Stipend	Paid directly from Academic Affairs fund on May 15, 2022	\$3,850
911250	Graduate Student Salaries	\$2,055
911300	Special Pay to Faculty other than Grantee	
915000	Student (Undergraduate or Graduate) Temporary Wages	
915900	Non-student Temporary Wages	
920000	Honorarium (Individual(s) not with UNCC)	
921160	Subject Incentive Fee	
925000	Domestic Travel	
926000	Foreign Travel	
928000	Communication and/or Printing	
930000	Supplies	
942000	Computing Equipment	\$745
944000	Educational Equipment	
951000	Other Contracted Services	
Year One Subtotal		\$6,650

Fiscal Year Two (July 1, 2022 to May 30, 2023)		
Faculty Stipend	Paid directly from Academic Affairs fund on May 15, 2023	\$3,850
911250	Graduate Student Salaries	\$6,166
911300	Special Pay to Faculty other than Grantee	
915000	Student (Undergraduate or Graduate) Temporary Wages	
915900	Non-student Temporary Wages	
920000	Honorarium (Individual(s) not with UNCC)	
921160	Subject Incentive Fee	\$1,000
925000	Domestic Travel	
926000	Foreign Travel	
928000	Communication and/or Printing	
930000	Supplies	
942000	Computing Equipment	
944000	Educational Equipment	
951000	Other Contracted Services	
Year Two Subtotal		\$11,016
TOTAL FUNDS REQUESTED (Year One + Year Two)		\$17,666

UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE

BUDGET NARRATIVE

For monitoring compliance with the Scholarship of Teaching and Learning Grants, a year as July 1 - June 30. The project timeframe is January 15, 2022 – May 30, 2023.

A. SENIOR PERSONNEL

Dr. Carl Westine, working with Dr. Kim, will co-lead the project and provide oversight of the concept mapping process and management of the graduate assistant. Dr. Westine will assist with data analysis, reporting, and dissemination of the findings and devote approximately 0.25-person months (\$1,955) each year during the summer.

Dr. Stella Kim, working with Dr. Westine, will co-lead the project and be responsible for directing data analysis, and reporting and disseminating the findings. Dr. Kim will devote approximately 0.25-person months (\$1,955) each year during the summer.

B. OTHER PERSONNEL

Graduate Student

We plan to hire one full-time graduate student to work on the project during the summer in years 1 and 2. In year 1, the student will work with Dr. Westine and Dr. Kim to perform a review of existing instruments for Peer Observation at UNC Charlotte and at large research institutions across the country. Additionally, in year 2, the student will assist with data collection, cleaning, management, and analysis associated with concept mapping process to examine instrument dimensions and items. The student will also support dissemination efforts. The graduate student will devote 20 hours/week to the project for one month during the first year summer period, and three months during the second year summer period.

C. FRINGE BENEFITS

NA

E. TRAVEL

NA

G. OTHER DIRECT COSTS

Computer Equipment

GroupWisdom software for conducting a concept mapping analysis is available from groupwisdom.com for \$2,245. For this proposal we are requesting \$745 to offset the full cost. The faculty researchers will cover the first \$1500 dollars using their departmental professional development funds.

Participant Stipends

We are requesting support for providing participant stipends of \$50 for each faculty member or Center for Teaching and Learning participant. The participants will provide input on the concept mapping process and focus group discussion following the development of the concept map.

I. INDIRECT COSTS

NA