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Supportive Classroom Assessment for Remote Instruction

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ABSTRACT

During the summer 2020, when remote instruction became the norm for universities due to COVID-19, expectations were set at our school of engineering for interactivity and activity within synchronous sessions and for using technology for engaging asynchronous learning opportunities. Instructors were asked to participate in voluntary assessment of their instructional techniques, and this "supportive" assessment was intended to enable growth in remote teaching as well as demonstrate excellence in the School's instruction. Preliminary results demonstrated what is possible with voluntary assessment with a "support" focus – namely instructor willingness to participate and encouragement in the use of desirable teaching practices.

Key words: Assessment, COVID-19, remote learning

INTRODUCTION AND BACKGROUND

For many faculty, the last five weeks of the spring 2020 semester represented a time of "persisting through" to the end of the semester after a heavily-unforeseen, rapid change from ordinary campus life and learning to remote education. At the University of Pittsburgh's Swanson School of Engineering, there were different expectations, however, for the summer 2020 semester, as the Associate Dean for Academic Affairs established a "new norm" for remote instruction by setting expectations regarding interactivity and activity in synchronous classroom sessions as well as the use of technology for creating engaging, high-quality asynchronous learning resources. These expectations were supported by multiple synchronous training sessions for faculty prior to the start

of the summer semester. In addition, instructors were asked to participate in voluntary assessment of their summer instruction via interviews with and classroom observation by the School's Assessment Director. This voluntary activity had a two-fold purpose, namely 1) to perform "supportive," as opposed to summative, assessment, to enable growth and development in remote online teaching, and 2) to demonstrate to others excellence in the School's instruction. The authors believe this voluntary program was particularly noteworthy because it was considered an assessment program; however, a very supportive aspect was also involved, namely upfront planning assistance (via an instructional checklist developed via faculty discussions), in-class coaching and observation, and follow-up formative verbal and written feedback. Thus, this voluntary "assessment" program had concomitant supportive aspects.

This supportive assessment program consisted of both 1) one-on-one instructional planning and coaching intended to encourage participation, and 2) formative assessment and feedback. This program was rooted in previous work by the Assessment Director (AD), in which she had used an individualized, social-based approach involving instructional coaching to propagate active learning within the engineering school [1]. Her previous work was based on the writings of Charles Henderson, Dancy, and colleagues, which advanced the idea that educational change may best occur through socially-driven and personalized practices, such as informal communication, interpersonal networks, collegial conversations, faculty communities, and support provided during change and implementation [2–4]. The AD's previous work was also grounded in the professional development literature indicating that adult professional learning must be personalized, including support with upfront planning, during classroom implementation, and via evaluation [5–7]. Classroom observation is one such form of support during classroom implementation [6–11].

METHODS

In the two weeks prior to the start of the summer semester, synchronous training and information sessions via Zoom video conferencing were held for instructors to promote desired teaching techniques and approaches in the remote online environment. The training and information sessions, which were one hour in length and conducted during the lunch hour, covered the following topics: 1) Online Classroom Organization and Communication, 2) Using Zoom for Active Learning, 3) Active Learning with Classroom Assessment Techniques (CATs), 4) Inclusive Online Teaching, and 5) Voluntary Supportive Assessment.

During the information session on voluntary assessment, the Assessment Director described the plan shown in Table 1, which was based on the framework discussed in Introduction & Background.

Table 1. Voluntary Assessment Program.

1. Individual interview with instructor (e.g., Zoom, phone, email)
a. Review *Planning and Observational Checklist*
b. Discuss plans for classroom observation (if applicable and desired)
c. Discuss plans for other support or review (e.g., review of course materials) if desired
2. Observe class session *if applicable*
a. Provide written feedback to instructor
3. Provide other review or support as desired
a. Provide written feedback to instructor
4. Provide acknowledgment of instructor participation to Associate Dean
5. Future discussion, interview, or email communications with instructor (as follow-up)
6. Create concise written summary (e.g., table/template) whereby excellence in teaching can be demonstrated

Thus, the assessment program was socially-based and involved one-on-one discussions with each instructor about his/her instructional plans, classroom observation using the COPUS observational protocol [12], determination of additional types of review or support desired, provision of written feedback to the instructor, and future follow-up communications with the instructor. The initial interview/discussion with the instructor was guided by a customized checklist created by a faculty team to assist the instructor with his/her planning as well as enable the Assessment Director to document actual practices observed or otherwise determined. The various sections of the checklist are as follows: 1) Synchronous instruction and methods for interactivity, activity, and "changing up" of lecture, 2) Asynchronous instruction, including flipped instruction, and methods such as videos, readings, accountability quizzes, and in-class exercises, 3) Learning Management System (LMS) use and organization, 4) Communication methods with students, 5) Assessment of learning approaches, submission methods, and student feedback plans, and 6) Academic integrity promotion.

Given that the program was voluntary, each instructor's participation was acknowledged to the Associate Dean in a weekly bulk email. This email described desirable practices witnessed during assessment activity with the instructor that week (e.g., via classroom observation). Each instructor discussed in the email was cc'd to drive community among the participants, with the hope of potentially creating small learning communities.

PRELIMINARY RESULTS

Of the 31 summer instructors, 16 (52%) volunteered to participate in the assessment following the information session. We believe this participation metric was noteworthy given the program was

one of voluntary-based assessment. This "supportive" assessment proactively began immediately at the start of the summer semester. At approximately five weeks into the summer semester, an initial interview, classroom observation, and/or "other review" had occurred with 15 instructors and so the assessment was formative and supportive, versus summative. A plan was made to observe the remaining instructor later in the summer given the schedule of the course. The following examples of desirable instructional practices, which were communicated to the Associate Dean, were observed by the Assessment Director:

- Not only did ***Instructor 1*** create a classroom in which the expectation was activity and engagement, but his flipped classroom was notable for the positive environment in which he thanked students for their responses, randomly asked students if they would mind answering questions, and always provided positive feedback on the responses. The classroom execution was flawless, including circulation among 11 breakout rooms for group work.
- ***Instructor 2*** made use of the Top Hat software and simple classroom assessment techniques (CATs), such as the Minute Paper, to drive interactivity and engagement. He also desired to use Zoom for this purpose (i.e., Polling or Chat window).
- ***Instructor 3*** created an asynchronous class design using Panopto videos with embedded accountability quizzes and reflective questions, all exceptionally laid out for students in Canvas. She held a live Zoom Q&A session to highlight the week's material, pose questions, and answer questions. The students responded to questions and asked their own questions.
- ***Instructor 4*** ran a blended classroom, in which he conducted both synchronous Zoom lecture sessions and provided content videos via Panopto. Students took a quiz in Canvas to drive accountability with the videos during class. There was interactive lecture, in which students were highly responsive by asking and answering questions via chat and verbally.

These sample results demonstrate what is possible with a voluntary assessment program with a "support" focus given strong leadership that provides learning and training opportunities for instructors – namely instructor willingness to participate as well as support for desirable teaching practices. An anonymous survey distributed to the instructors near the end of the semester indicated an average rating of 3.88 on a 5-point scale regarding the helpfulness and usefulness of the classroom observation and other formative feedback offered (57% response rate). In the words of one participant, "*I got a professional review of my strategy for remote teaching, and a check on my early implementation. Assessment provided me with a positive reinforcement that gave me assurance and encouraged me to move forward. I was offered a broad range of helpful support that reassured me that I could rely on opportune help when needed. I do appreciate it very much!*" In the words of another, *"...Also, just the act of being evaluated makes me reflect more on my teaching methods."*

NEXT STEPS AND FUTURE PLANS

Given the relatively larger number of courses in the fall semester, this assessment program will be continued on an "as requested" basis for instructors. It is worth noting that there was a time commitment by the Assessment Director and that (in general), individualized coaching is time-wise expensive [13]. However, evidence suggests that the effectiveness of professional development for instructors, including coaching, is positively associated with the intensity of the support [14]. Thus, seeing what was possible with this supportive voluntary assessment program in the summer suggests that committing the right resources (i.e., both in number and supportiveness) may be an avenue to propelling remote instruction to higher levels.

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