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Investigating the Transition to Remote Teaching During COVID-19: Recommendations for Campus Leaders and Centers for Teaching and Learning

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To assess the perceived role and ability of centers for teaching and learning (CTLs) in supporting faculty in a time of crisis, we asked the following research questions: (1) how did CTL staff view their involvement in the process of responding to the coronavirus pandemic and shifting to virtual instruction; and (2) how did CTL staff perceive their capacity to help instructors transition to remote instruction. In pursuit of these questions, we conducted a content analysis of open-ended survey responses from 143 unique CTL staff participants. Our findings indicate that participants in CTLs who were highly involved in the pandemic response experienced active engagement (e.g., being at the table with decision-makers), frequent communication (e.g., regularly attending transition task force meetings), and recognition (e.g., feeling as though their expertise and input was valued and seen). CTL staff that did not feel involved in the process tended to frame their experiences as responding to top-down demands (e.g., fulfilling task-oriented roles rather than comprehensive engagement with decision-makers), navigating poor communication (e.g., receiving important information late in the process through email), and feeling undervalued (e.g., feeling taken for granted). CTL staff that felt prepared to respond to virtual instruction discussed having extensive expertise and/or strategies outlined for success, previously prepared and/or robust programming for faculty support in place, and collaborations with other departments or centers on and off campus. However, CTL staff that felt less able to address

the needs of faculty expressed problems with being understaffed and ill-equipped (e.g., having inadequate expertise). Across all respondents, CTL staff discussed working additional hours to address greater responsibilities and/or faculty demand. To maximize the CTL's ability to support faculty, we suggest that institutions bolster opportunities for CTLs to be involved in the decision-making process (even if an advisory role) about policies impacting instruction and communicate frequently and openly with CTL directors. If unable to devote additional resources for staffing, we recommend that administrators foster collaborative partnerships across departments (e.g., Office of Information Technology) to leverage cross-institutional expertise. Furthermore, CTLs should work to develop relationships with faculty and institutional partners through continual programming, in order to build expertise, create relationships with faculty, and embed themselves within the larger institutional framework.

Research Questions

In order to assess the perceived role and ability of centers for teaching and learning (CTLs) in supporting faculty in a time of crisis, we asked the following research questions: (1) how did CTL staff view their involvement in the process of responding to the coronavirus pandemic and shifting to virtual instruction; and (2) how did CTL staff perceive their capacity (e.g., funding, staff, expertise, support) to help instructors transition to remote instruction.

Methods

Survey Instrument and Administration

To investigate the perceived roles of CTL staff in the transition to online teaching during the COVID-19 pandemic, we designed and administered an online survey for CTL staff members. To inform the design of the survey questions, we interviewed eight staff members from CTLs at a variety of institution types (e.g., liberal arts colleges, community colleges, private universities, public universities) across different regions in the United States (e.g., west coast, mid-west, east coast). Interviews were conducted over Zoom in early June and lasted approximately 30 minutes to one hour. Interviewees were asked to discuss their experiences with the transition to remote

instruction on campus, the services their CTLs provided to their campus, and their perceptions of their involvement in the decision-making processes. While the responses of these informational interviews were not analyzed for this paper, these interviews did inform the types of questions included in our survey.

Our survey instrument included 31 questions varying in form (i.e., Likert-scale, multiple choice, and open-ended) pertaining to institutional characteristics (e.g., institution type, regional location, term type), CTL characteristics (e.g., number of full-time staff), and perceptions of their involvement with the shift to remote instruction (e.g., role in decision-making process, scope of communication with faculty). The open-ended survey questions asked CTL staff members to describe their experience with following topics: (1) involvement in the process of shifting to remote instruction, due to the coronavirus pandemic; (2) capacity (e.g., funding, staff, expertise, support) to help instructors transition to remote instruction; (3) circumstances that either benefited or hindered CTLs in aiding the shift to remote instruction at their institutions; (4) and any other personal, professional, social, and/or institutional factors that influence the role of their CTL at their institution. We analyzed the responses to these open-ended questions through content analysis in order to address our research questions, as discussed in greater depth below. Survey questions were reviewed and approved by the Institutional Review Board prior to administration.

To recruit participants for our survey, we used convenience sampling methods to collect responses from professionals working for CTLs at a variety of institutions across the United States. Our survey was administered in June of 2020; we recruited participants through invitations sent to several teaching center and professional pedagogy community email listservs and through emails directed at specific CTLs. First, we sent an invitation to participate in our survey via email to the listservs for the following organizations: the Professional and Organizational Development (POD) Network and the University of California Teaching Center. In addition, we invited staff from CTLs at 59 selected institutions to participate in our study; these institutions included community colleges, research universities, and private colleges. These CTLs were selected based on the professional networks of the co-authors. After initial emails were sent out to recruit participants on June 11th, 2020, a follow-up email was sent on June 17th, 2020. Responses were collected from June 11th, 2020, through June 22nd, 2020, using Qualtrics survey software.

Participant Characteristics

In all, we had 143 unique participants in our convenience sample. As seen in Table 1 below, our participants represented a variety of CTL perspectives. Twenty-eight percent came from colleges offering associate’s degrees or baccalaureate degrees, 46% represented universities granting doctoral degrees, and 22% worked at institutions offering master’s degrees.

Table 1
Participant Characteristics by Institution Type

Institution Type	Count	Percent
Associate's College	14	10
Baccalaureate College	22	15
Baccalaureate/Associate's College	5	3
Doctoral University	66	46
Master's College/University	31	22
Other	4	3
Special Focus Institution	1	1
Total	143	100

Participants also represented a variety of regional perspectives from across the United States, with 33% working in the Northeast, 23% working in the Midwest, 16% in both the Southeast and Southwest regions, respectively, 9% in the Northwest, and 1% in the South-Central region (Table 2). In addition, two participants represented CTLs outside of the United States.

Participants represented CTLs with varying full-time staffing capacity, as presented in Table 3. A large majority (133 out of 143) worked at CTLs with 20 full time employees or fewer: 29% participants worked at CTLs with one full-time staffer or only part-time staff positions; 28% worked at CTLs with two to five full-time staff; 24% worked at CTLs with six to ten full-time staff; and 12% worked at CTLs with 11 to 20 full-time employees. In addition, 7% of participants worked at large CTLs – CTLs with 21 or more full-time staff.

Finally, a majority of participants (87%, n = 125) worked for institutions implementing a semester term; sixteen participants (11%) came from schools with a quarter system, and two indicated another type of term schedule.

Table 2
Participant Characteristics by Institution Location

Institution Location	Count	Percent
Northeast US	47	33
Midwest US	33	23
Southeast US	23	16
Southwest US	23	16
Northwest US	13	9
Outside US	2	1
South Central US	2	1
Total	143	100

Table 3
Participant Characteristics by Number of CTL Full-Time Staff

CTL Size	Count	Percent
1 or fewer full-time staff (or only part-time positions)	42	29
2-5 full-time staff	40	28
6-10 full-time staff	34	24
11-20 full-time staff	17	12
21-50 full-time staff	8	6
51 or greater full-time staff	2	1
Total	143	100

Data Analysis

We used content analysis methods to analyze the textual data collected from the open-ended survey questions. Through this method of analysis, larger volumes of textual data are organized into smaller, categorical groupings or “themes.” The process of identifying these themes, which represent a conveyance of similar meanings or messages, ultimately helps to explain broader similarities in responses and foci of communication across participants (Hsieh & Shannon, 2005).

First, we identified and developed themes through open coding techniques. In this process, we reviewed textual data for each open-ended survey response and systematically assigned a series of codes (i.e., words or phrases) that summarized the primary meaning of the text (Saldaña, 2015). Second, after assigning all textual data a code or series of codes, we then examined the entirety of our coded dataset for patterns (e.g., repetitious codes) and then grouped these codes thematically. The themes that emerged as a result of this content analysis process are explained and defined in the findings section of this paper.

Findings

RQ1: How did CTL staff view their involvement in the process of responding to the coronavirus pandemic and shifting to virtual instruction?

We found that CTL staff either felt involved in the transition to remote instruction or did not feel included in the decision-making process. Those participants in CTLs highly involved in the process of transitioning to remote instruction discussed the following experiences: active engagement (e.g., being at the table and engaging with various stakeholders), frequent communication (e.g., regularly attending transition taskforce meetings), and recognition (e.g., feeling as though their expertise and input was valued and seen). On the flipside, CTL staff who did not feel involved in the process tended to frame their experiences as responding to top-down demands (e.g., fulfilling task-oriented roles rather than comprehensive engagement with decision-makers), navigating poor communication (e.g., receiving important information late in the process through email), and feeling undervalued (e.g., feeling exploited and taken for granted). These findings are explained in greater depth in the following section. Please see Table 4 below for a summary of findings.

CTL staff that felt involved in the transition to remote instruction tended to describe their role in the decision-making process in several distinct ways. CTL staff framed their involvement in the shift as being engaged; participants often mentioned having a “seat at the table” and discussed having an active role in shaping the institutional response to the pandemic. For example, one participant stated, “Our CTL was at the forefront of the planning process for remote instruction when we started to hear about other institutions closing.” Another participant echoed these statements, writing “Our

CTL is directly involved in all teaching decisions including modalities and training.” As yet another example of expressing active involvement in the

Table 4
Research Question 1: Summary of Findings

Involved with process to remote transition		
<i>Emergent theme</i>	<i>Description of theme</i>	<i>Perceived benefits by CTL staff</i>
Active engagement	<ul style="list-style-type: none"> • Being at “at the table” and engaging with stakeholders and decision-makers • Having an active or an advisory role in decision-making processes • Attending and contributing to university leadership meetings • Being “embedded” within institutional networks • Being familiar/visible to the campus community • Actively working with other campus departments and institutes 	<ul style="list-style-type: none"> • Directly shaped and/or guided policy responses for transitioning to remote instruction • Prepared for and anticipated future needs more quickly and in step with campus leadership • Collaborated easily and quickly with other campus entities
Frequent communication	<ul style="list-style-type: none"> • Engaging in campus-wide communication throughout the transition • Communicating frequently and effectively with institutional decision-makers • Having role conveyed/elevated by campus leadership • Engaging in direct communication with campus community and/or faculty 	<ul style="list-style-type: none"> • Explained CTL’s role in transition with campus and faculty (either directly or via campus leadership) • Worked well with campus leadership • Advertised available resources and programming with faculty and campus community

Recognition	<ul style="list-style-type: none"> • Feeling valued and recognized by leadership of institution • Receiving resources, encouragement, and support from institution 	<ul style="list-style-type: none"> • Felt supported by campus community
Not involved with process to remote transition		
<i>Emergent theme</i>	<i>Description of theme</i>	<i>Perceived detriments by CTL staff</i>
Top-down demands	<ul style="list-style-type: none"> • Fulfilling task-oriented roles rather than contributing to campus policies/plans for transitioning to remote instruction • Being excluded from decision-making processes • Being brought into decision-making processes in superficial, inconsistent, and/or underutilized ways • Being brought into the decision-making process at too late of a stage 	<ul style="list-style-type: none"> • Felt unable to share concerns, questions, needs, and/or expertise with campus leadership • Felt unable to meaningfully contribute to policies/plans for transitioning to remote instruction
Poor communication	<ul style="list-style-type: none"> • Receiving important information late in the process • Receiving information pertinent for planning programming at the same time as faculty 	<ul style="list-style-type: none"> • Felt unable to or ill-equipped to adequately plan programming and/or assist faculty
Feeling undervalued	<ul style="list-style-type: none"> • Feeling unsupported, pushed aside, and/or underutilized 	<ul style="list-style-type: none"> • Felt unable to leverage CTL expertise and step up to serve the needs of faculty and students

process of responding to the pandemic, one participant shared the following: “Our CTL was intimately involved in training our faculty and assisting them along the way from the very start. I have been involved in all of the university leadership meetings as well.”

In framing these discussions of active engagement, CTL staff frequently mentioned having access to decision-making spaces through their CTL leadership staff, who worked directly with key decisionmakers. Participants felt that by having a key staff member serving a leadership or administrative role (e.g., a Director on the Provost's Council), their CTLs were more directly involved in conversations shaping the pandemic responses. For example, one participant stated,

We have staff members sitting on subcommittees under the direction of the Provost's office. We were present at meetings with deans in all colleges right before our campus closed. Our Director is often invited to senior leadership meetings.

As another example, a CTL staff member wrote that, "[Our] Director serves on multiple reopening committees directly involved in determining issues related to teaching and student experience." Another participant echoed these experiences, writing, "Our center was the hub of the rapid move to remote learning. As Director, I report to the Provost, so I was included in many leadership conversations." Yet another participant discussed the importance of the connection to decision-makers, stating, "This tight connection [with campus] probably wouldn't have been in place had I not happened to have an interim appointment as a Dean (simultaneously with directing our CTL). Consequently, I was fortunate to be involved in many of the critical decisions and was consulted about faculty preparation and readiness."

Other participants noted that while the CTL staff were not ultimately decision-makers, having a seat at the table in decision-making spaces allowed CTL input to be considered in the process of shifting to remote instruction. Exemplifying the perception of helping to shape campus policy through an advisory role, one participant wrote, "The director of our CTL is included on steering and other campus response committees who are drafting policies for re-opening and determining teaching modalities in the Fall semester. While she is not necessarily a decision-maker, she can offer input that is then considered by senior administration." Another participant shared a similar perspective stating, "I am part of the Provost team. As such, I offer advice regarding aspects of the teaching and learning environment. However, the decisions are ultimately made by the Board and the President." Another CTL staff member shared that the "Faculty director of [our] CTL is also an administrator who was brought into conversations about how to best transition instructors to new remote environments." As another example of CTLs actively serving in more of a consulting capacity, a participant wrote that,

“Two CTL staff have served on committees about academic continuity and evaluating teaching models for the next academic year under a variety of COVID-19 scenarios. In addition to the committees, we have consulted with deans and the Provost on pressing issues and decisions multiple times.” As a final example, another participant reflected on the ability to create response efforts more quickly by being afforded a place at the table: “I sit at tables where I heard what was happening. We weren't necessarily involved in the decision, but were aware of it and helped create programming quickly to respond.”

Related to their active engagement in the process of shifting to remote instruction, participants from CTLs involved in the decision-making process commonly framed their CTL as being “embedded” in their institution. Participants framed this deeper embeddedness within their institutional networks as having previously established relationships with other campus entities and as having an established presence on campus. As one participant remarked,

I wear a number of hats on our campus in addition to being our Center Director (both governance and operations), and have been fully involved in academic continuity planning for our campus. So by default our Center has been fairly tightly integrated with campus leadership (even though we're a very small shop and limited in the amount of support we can provide). We were high profile from the beginning of the pivot onward though, in terms of providing workshops, new technology tools, and other assistance to faculty as they switched to emergency remote instruction.

Participants framed CTLs active in shaping responses to the pandemic as those that have been working with other departments and institutes on campus (e.g., Office of Information Technology), already visible within the campus community, and able to collaborate with other organizations easily.

Likely aided by their pre-existing active engagement with those making decisions, CTL staff members involved in the process of moving to remote instruction commonly noted frequent, campus-wide communication throughout the transition. More specifically, CTL staff who felt included in the process of enacting virtual instruction described frequent communication with institutional decision-makers, particularly at the cabinet level (e.g., Provost). For example, one CTL staff member stated, “The CTL was the hub for faculty support, and we were in weekly contact with the Provost, who provided all publicity for our offerings.” Another participant shared a similar experience, writing “Our Vice President of Instruction directly oversees

our CTL, and is deeply invested in the work of the CTL, and therefore was in constant communication with those of us in the CTL, so we were able to work together quite well." In addition to communication with administrative staff, CTL staff felt that their role in the transition was being effectively or adequately communicated to the faculty and campus community. As an example, one participant noted that, "We are one of the only entities called out specifically in campus communications." Other CTLs were able to communicate with faculty and the campus community directly. As one participant stated, "All training and much communication during the transition came from the CTL."

Another key theme, CTLs included in the process of the transition to remote instruction often reflected on feeling valued and recognized by the leadership of their institution as well as feeling "seen." As one participant stated, "...as a result of the move to remote instruction, all CTL staff were deemed 'essential' by the institution. As Director, during the move to remote work and instruction, I have been more included in the leadership and the mission of the university than ever before." Furthermore, participants involved in the process of transition to remote instruction often described feeling supported by their institutions (e.g., receiving help, resources, encouragement). For example, one CTL staffer remarked that their "CTL was highly supported in efforts to move remotely." Another noted that, "Campus leadership was very supportive of our CTL, provided remote assessment software, more videoconferencing accounts and other things."

On the other hand, a clear theme in the data was that many participants did not feel that their CTL was involved in the process of transitioning to remote instruction. As an example, one participant noted, "Our CTL does not seem to have an influence on the direction the campus decides to go with respect to teaching and learning." Another echoed this experience, writing "Our CTL was not involved in any decision making." Perhaps unsurprisingly, these staff tended to frame their experiences in ways counter to those who felt included in the process of responding to COVID-19.

First, CTL staff not included in the decision-making processes tended to frame their role as responding to top-down demands, rather than contributing to a comprehensive response or providing their input to administrative officials. Having never been involved in the policy-making process in an active or in an advisory capacity, CTL staff members framed their role as reacting to meet the demands of campus leadership (without campus leadership ever seeking input as to whether those demands were reasonable or achievable). As an example, one CTL staff member wrote that, "While edicts

have been handed down for us to implement, we've not had a seat at the table. Leadership has not involved our Director in any of their conversations." Another participant shared these experiences of not being involved in the process, stating "We were not consulted by the administration at any time, then or since."

Other participants stated that their CTLs were involved eventually or in some capacity, but usually too late in the process or in a way that felt less collaborative and more forced. For those CTLs that were brought into the process in more a limited capacity, staff framed their involvement as superficial, inconsistent, or underutilized. For example, one participant stated that "While our director has been privy to meetings about the campus response, we've largely been cut out of the decision-making and our concerns and questions are not addressed by university leadership." Another participant echoed this experience, writing "...the President does not have a grasp of the role we can play. This meant the center was underutilized and left picking up after decisions were made." Another participant had a similar comment related to this issue of inconsistent engagement with campus leadership and in the decision-making process, stating "We were involved in many decisions and programs, but felt left out of some key components." As a final example, a different CTL staff member wrote, "Our CTL has been asked to join certain committee meetings, but leadership has not incorporated our recommendations or necessarily honored the expertise we hold around pedagogy."

CTL staff members expressing exclusion from the decision-making process also described problems with communication. Importantly, participants described feeling as though information came too late in the process, leaving them ill-equipped to adequately respond to faculty needs or prepare programming. The lack of communication often pertained to important information (e.g., timeline for moving to remote instruction) and/or to pandemic-related decision-making in general. For example, one CTL staff member commented, "The CTL found out about the campus decision making via email." Another participant highlighted the lack of advance notice for preparation, writing that "The CTL learned of the decision to shift to remote in the same email that notified all of the other faculty and staff. Afterwards, we tried to offer some programs to assist faculty, but were not part of the initial group that planned support resources." As yet another example, one CTL staff member discussed challenges in receiving information at the same time as faculty, writing "We largely hear about new developments in planning

for the fall at the same time as the faculty, despite being referenced by leadership as the group responsible for professional development and support for remote teaching." Other participants discussed problems in communication, but anticipated responses before receiving official communication from their institution's administration. As an example, one participant noted, "The administration was very slow to respond and issue any sort of institution-wide messaging or guidance, and so CTL staff 'moved out' on our own in a proactive way." Another CTL staff member echoed this experience, stating "We were not necessarily in the loop to have a lot of heads up about what was coming, but we were proactive about what was coming..."

As another emergent theme, several of the participants that felt excluded from the decision-making process also felt under-valued or let down by their institution in a time of crisis. As one participant wrote, "Our president got a new job during the pandemic and basically abandoned us." Another CTL staff member shared feeling excluded from decision-making as well as having proactive actions be actively dismissed:

The CTL has been actively excluded from all discussions around teaching since the lockdown began... it's important to acknowledge that at the time when our center could step up and offer faculty support in the greatest crisis in their lifetimes, we have been stymied by encroaching territorialism. It has been devastating professionally and personally.

Related to feeling undervalued, other participants shared disappointment and frustration in not being looked to as an important pedagogy resource in an educational crisis. Several of these participants shared their perceptions that their institution viewed the pandemic as posing a technology crisis (seeking the input solely from IT departments), rather than a crisis necessitating expertise in best pedagogical practices and inclusive teaching. It is important to note that while CTL staff with limited involvement in the process of shifting to remote instruction commonly expressed sentiments that indicated feeling underutilized, underappreciated, and/or undervalued, we cannot speak to the motivations or perceptions of campus leadership. While perhaps institutional leaders and decision-makers did not value the input, expertise, and/or involvement of CTLs, there are various other possible explanations. For example, CTLs and their expertise could have been largely unfamiliar or unknown to campus leaders or there could have been relatively poor communication and collaboration within the institution across the board.

RQ2: How did CTL staff perceive their capacity (e.g., funding, staff, expertise, support) to help instructors transition to remote instruction?

CTL staff that felt prepared or able to help in the transition commonly discussed having extensive expertise and/or strategies outlined for success (e.g., staff with expertise in IT), previously prepared and/or robust programming for faculty support in place (e.g., online teaching certification workshops), and collaborations with other departments/centers on and off campus (e.g., working with campus IT, learning from actions at other institutions, using resources shared within professional listservs). Those that did not feel as though their CTLs were able to adequately address the needs of faculty generally discussed being understaffed, ill-equipped, unsupported, and/or unprepared (e.g., having inadequate funding, expertise, experience, staff, or resources). Across all respondents, CTL staff discussed working additional hours to respond to the moment as well as mentioned facing challenges in scaling up efforts to meet the increased demands. All of these themes are explained in greater depth below.

Within the open-ended responses from CTL staff that felt prepared for the transition to remote learning, having adequate and available expertise to draw from was a common theme. CTL staff with positive reflections of their capacity to respond frequently pointed to having staff with a variety of skills sets (particularly in terms of online learning) that helped in refining a strategy and developing a plan. For example, one CTL staff member stated, “We were ready—we had lots of expertise to share.” Another participant shared, “In general, we had the knowledge and skill to support instructors.” A different participant wrote, “Our general expertise in evidence-based teaching served us well, and we've all learned a lot about online instruction in the process.” Personal experience and familiarity with the situation also served as an important form of expertise; as another CTL staff remarked pointedly,

We know our shit. We are faculty supporting faculty with an understanding of the complicated balances we're all dealing with. We were in a good position to help and created/curated materials to help faculty based on their early and important topics that were coming up in consultations.

Expertise was important for CTLs of varying sizes; staff from large CTLs discussed the benefits of having a diverse and skilled team to work with, while CTLs with few staff were grateful for having at least one member with some

expertise, familiarity, and/or experience with programming and virtual instruction. For example, one participant spoke to the strengths of having a diverse expertise skill set to draw from stating, “Some of the staff were experienced in technology (online teaching), while some were able to think more deeply about inclusion and student agency.” In addition, participants discussed the benefits of their prior expertise in adding their capacity to respond, while also noting the importance of “learning on the job” and continuing to develop their skill sets. For example, one CTL staffer wrote, “We leveraged existing strengths (knowledge of research on teaching and learning, knowledge of alternative assessments, knowledge of LMS [Learning management Systems] and videoconferencing tools) but also engaged heavily in learning more (our own [professional development]) so that we could prepare in the moment.”

Yet while expertise emerged as an important theme in terms of advancing preparation for transitioning to virtual learning, discussions of expertise were often paired with qualifiers that additional support (e.g., more staffing, more funding, greater organization, better communication) would have bolstered the abilities of CTLs to respond. In other words, while expertise was framed as an important factor in helping CTLs prepare for the transition to online instruction, there were limitations in terms of how much work a small staff could take on, regardless of the knowledge and experience of staff members. As one participant noted, “Well, we were able to pull it off, but it was completely dependent on the small staff working 16 to 20 hours days, seven days a week for over a month to make it. So while we were well prepared in terms of expertise and the necessary infrastructure, we were not well prepared in terms of truly adequate staffing.”

In addition to drawing from knowledgeable and experienced staff members, greater capacity to respond was also framed in terms of having prior experience with programming (e.g., instructional design courses) or current online instruction programming already in place (e.g., online teaching certification training). Not only did this prior programming likely help by relating to expertise and experience, existing programs were also framed as being indicative of an established presence on campus, of a greater familiarity with faculty, and of a developed network with campus collaborators. As a CTL staff member wrote,

Our Center already offered trainings and resources to faculty remotely. In spring, we just transitioned to only offering support remotely. We also were heavily engaged with Zoom and Google products before the transition to remote.

As another example, a different participant reflected on the importance of already having established programming and a connection to campus, stating:

We had already been offering synchronous remote programming for all of our workshops and had a strong instructional design [asynchronous] course that most faculty had taken. We found that we were able to assist all faculty and provide an exceptional level of workshops/discussions despite being a two-person department. We leveraged existing relationships and knowledge of faculty who were already teaching online or had other relevant experience to deliver workshops as well.

As a final example, one participant stated that, “[Our] CTL and other faculty development people are well known on campus, already working on helping with digital awareness and training, and actively seeking to educate and promote anything that can help with distance learning, as well as add value and activity to on campus courses. They were all ready to jump in with lots of resources and ideas.” By having previously established programming on campus, CTLs were likely well-positioned to draw from existing materials, resources, and expertise (which made their response efforts more efficient). Furthermore, having credibility and campus recognition established through prior programming allowed CTLs to draw from existing relationships with faculty (e.g., assess faculty needs through consultations) as well as promote resources and support through previously established means of communication.

Discussion of collaborations with other departments/centers on and off campus was another theme related to feelings of preparedness. Many CTL staff discussed the importance of collaborating with other departments to address the challenges of shifting to remote instruction; these relationships related primarily to partnerships that filled gaps in CTL expertise, such as working with IT departments and instructional designer staff, or to the need to collaborate in order to scale up existing programming and pool resources. As an example, one CTL staff member wrote, “Given the rapid shift and how initially unprepared we were, we developed very useful resources, and relied on an amazing group of academic technologists. A faculty affiliated with my CTL also had considerable experience teaching online at a previous institution, which helped a lot.” As another example, a participant commented

on the benefits of collaboration in the response to shifting to remote instruction, writing:

We had some established infrastructure to support instructors who teach summer online courses in place before campus was shut down in March (essentially, an internal online course on how to teach an online course). Our [IT] staff were able to convert this course into an emergency online teaching module. The spirit on campus also was “all hands on deck” and folks took pride in supporting each other.

In addition to direct collaboration with institutional peers, CTL staff also prepared by engaging with professionals from other institutions through email listservs (e.g., POD listserv). Participants found the ability to access materials and resources from other CTLs as helpful in bolstering their capacity to respond to faculty needs. For example, one participant stated,

POD Network listserv was INVALUABLE during the transition. The resources that came flooding in were shared out with relevant academic programs and then curated into an online pedagogy resources Google Doc that were shared with faculty. We would have been far less prepared were it not for those resources.

Another participant echoed similar sentiments, writing that “We did not have as many resources online as we would have liked, but we are well positioned within the institution and (thanks to generosity of POD colleagues!) were able to rally quickly and provide scaffolded support to faculty.”

For those CTL staffers who did not feel prepared to help faculty respond to the shift to virtual instruction, a clear theme emerged: participants commonly paired a lack of capacity for preparedness as an interrelated issue of inadequate staffing, expertise, and/or time. As a lesser related theme, some participants framed a lack of capacity to respond as due to the administration actively shutting them out of the response effort (e.g., ignoring the CTL in favor of working primarily with the campus IT department).

Some of the staffing issues were framed as ongoing challenges (e.g., dwindling funding and/or position vacancies), some were framed as happenstance (e.g., open positions due to parental leave), while fewer were described as staffing losses due directly to the pandemic (e.g., employees being furloughed or having extreme difficulty in working from home while caring for children). As an example of longer-term staffing problems, one participant wrote that, “Our unit has been chronically understaffed relative to the size of our institution.” Another shared a similar perspective, writing:

Our CTL is half the size it was two years [ago] and all of those positions were absorbed and never rehired. We are a very small unit for

the institution's size. We did everything we could this spring, but being under-staffed and under-resourced put us at a real disadvantage.

Another participant elaborated on these challenges in responding to a crisis with a chronically understaffed team, writing:

Continued defunding of our CTL by campus leadership put us in a precarious position when we had to move to remote instruction. While one instructional designer held deep knowledge in digital and online pedagogy, the two others did not have extensive experience in online delivery. We were already taxed for time and resources and this change just exacerbated our lean team's ability to respond.

Related to more immediate staffing concerns, a different participant noted, "Our CTL at the time of the Spring university closure was significantly understaffed due to a parental leave and being in the process of hiring for a vacated position." Similarly, another wrote, "We had two searches happening in the midst of the transition, which was stressful and meant we were short-staffed at times." As an additional example, one participant wrote that "Though we had the expertise, we were seriously understaffed for the need." Another CTL staffer shared, "It would have been helpful if we had things in place in case of an emergency; however, we are short-staffed at the best of times, so that was never a priority."

Other staffing issues related directly to a lack of in-house expertise. For example, one participant wrote that their CTL did not have "...enough staff with extensive experience." Another participant commented on the need to bring in additional support due to a lack of in-house expertise, writing: "Other campus offices and resources needed to be marshaled quickly, as CTL folks did not directly have the expertise necessary to support a shift for faculty at that speed." Another participant spoke to addressing a lack of staff expertise stating that, "We have no academic technology specialist. Now we will hire one!" Adding to these shared experiences, another participant wrote that the CTL did not have "...nearly enough staff or resources to adequately help, especially for those with very limited tech skills."

In addition to lacking permanent staff or in-house staff expertise, participants also tended to frame a lack of capacity to respond as an issue related to simply not having enough time to adequately support faculty in the transition to virtual instruction. While many CTL staff discussed working additional hours, many simply felt there were not enough hours in the day to complete all of the tasks required of them on short notice. For example, one participant wrote, "We knew how to do [programming], and were probably

staffed well enough to do it, we just simply didn't have enough time to plan a program to do it well." Many CTL staffers echoed these sentiments, noting the challenges in addressing a high volume of faculty needs in a short period of time.

Discussion

While our findings relate specifically to the crisis event of responding to the COVID-19 pandemic, these provide several insights for both institution administrators and CTL staff in both times of unexpected stress and in times of relative calm. Our findings suggest that many of the lessons learned from the coronavirus pandemic can be applied when institutions return to traditional modes of instruction. For one, staff from CTLs actively involved in the decision-making process not only expressed greater morale (which is especially vital in a crisis), but felt more able to support their institution by having the ability to share their expertise with key decision-makers and to plan CTL programming in step with the emerging needs of faculty and students. Furthermore, CTL staff actively engaged in the decision-making process frequently discussed their CTL's direct connection with institutional leadership. To help CTLs in their roles supporting faculty, we suggest that institutions bolster opportunities for CTLs to be involved in the decision-making process related to policies impacting campus instruction (even if an advisory role) and communicate frequently and openly with CTL directors.

In addition, because staff expertise so directly related to CTL staffs' perceived capacity to support faculty adequately and in a timely manner, we suggest that CTL directors and institution administrators do the following: (1) provide the resources, encouragement, and opportunities to allow current CTL staff to continue their professional development and skill-building; and (2) provide the financial support to hire additional staff to fulfill identified gaps in expertise. If unable to devote additional financial resources for in-house staffing, we recommend that campus administrators and CTL directors work to foster collaborative partnerships across departments (e.g., Office of Information Technology) to leverage cross-institutional expertise. Even if there are no constraints in hiring additional staff members, these partnerships help to create engagement across the university and provide networks that may be vital in future challenges. Relatedly, our findings suggest that CTLs should work to develop relationships with faculty and institutional partners through continual programming, in order to build expertise, create relationships with faculty, and embed themselves within the

larger institutional framework. Leveraging the expertise of CTLs and bolstering their capacity to serve an institution not only smooths the transition to remote teaching during a time of crisis, but also when campus leaders are faced with new challenges in teaching and learning. However, future research should continue to examine the roles of CTLs in working to support faculty as well as assess barriers to including CTLs more fully in institutional decision-making. Relatedly, future research should investigate how to build better relationships between CTLs and institutional leadership, so that the role, expertise, and value of CTLs are better understood, supported, and utilized by campus decision-makers.

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