Mind the Gaps: An Online Learning Center’s Needs Assessment

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Abstract

A needs assessment was conducted at a learning center at one completely online institution to understand administrator, faculty, and student perceptions of the center’s services and resources to uncover gaps between the current state and intended outcomes (personalized support, clarity of services, and shared accountability for student success). Through gap analysis, findings suggested that there is a need to empower students through personalized support, prevent struggling students from feeling overwhelmed, and direct students to specific services and resources based on their unique needs. Next steps and implications for future research are discussed.

Introduction

Scholars have argued that the best outcomes are achieved when learning center professionals (LCPs) collaborate with faculty members to promote student success (Arendale, 2010; Masiello & Hayward, 1991; McGuire & McGuire, 2015). Although they exist at nearly every higher educational institution in the United States, learning centers historically have been developed and continue to function in the margins (Arendale, 2010; Boquet, 1999). Therefore, they are often the best-kept secret on campus, despite their being invaluable resources to students and faculty members alike (Arendale, 2010; Boquet, 1999; McGuire & McGuire, 2015).

Research on how to build a bridge between the classroom and these centers is limited (McGuire & McGuire, 2015; Payne, Hodges, & Hernandez, 2017). Consequently, best practices to enhance or develop learning centers are not widely available (Casazza & Bauer, 2006; Payne et al., 2017). Furthermore, no one adult learning theory appears to address online learner needs completely when looking for guidance in the development of best practices (Cercone, 2008). Given this lack of guidance in the literature, LCPs might first seek to understand (and clarify as needed) the perceptions of center services and resources among key external stakeholders, including administrators, faculty members, and students (Arendale, 2010; Payne et al., 2017). In response to the call by Payne et al. (2017) to employ a needs assessment to understand and meet students' needs relating to their academic success, the aim of this work was to examine gaps between the current state of learning center services and resources and the intended outcomes of personalized support, clarity of services, and shared accountability for student success.

Background

In the past decade and a half, the greatest gains in enrollment have occurred at open-access or nearly open-access institutions; however, evidence of their success in terms of retention and graduation rates is mixed (Aud et al., 2011; Gayton, 2015). These mixed results might be partly due to the various types and perceptions of support structures that are in place to help students to navigate institutions of higher education (Aud et al., 2011; Casazza & Bauer, 2006; Engstrom & Tinto, 2008; Gayton, 2015; Tinto, 2012). Online students desire many of the same support services that are traditionally offered to students at brick-and-mortar institutions, including online tutoring and coaching (LaPadula, 2003; Payne et al., 2017). Further, research is scarce regarding what supports are needed for master's students and, to an even greater extent, doctoral students (Artino & Stephens, 2009). Positive outcomes are associated with students' engaging with LCPs, including a higher grade point average (Arendale, 2010; Aud et al., 2011) as well as increased persistence (Bettinger & Baker, 2013; Lehan, Hussey, & Shriner, 2018), retention (Arendale, 2010; Aud et al., 2011), and completion (Bettinger & Baker, 2013) rates. Showing students what they must do to achieve academically is necessary, yet alone it is insufficient to promote their success (Casazza & Bauer, 2006; Kuh, Kinzie, Schuh, & Whit, 2010;

Manning, Kinzie, & Schuh, 2006). LCPs who engage in purposeful collaboration with faculty members and professionals in other departments positively contribute to students' degree completion (Arendale, 2010; Payne et al., 2017).

Despite the established relationship between students' working with LCPs and the aforementioned positive outcomes, the research examining the mechanisms by which learning centers can best support student success is still "in its embryonic stages" (Griffiths, 2015, p. 24). Furthermore, it is still unclear how to promote understanding of the value of learning center services to institutional stakeholders to effectively offer learning center services to support online students (Gayton, 2015; Milman, Posey, Pintz, Wright, & Zhou, 2015). Therefore, researchers focusing on student support have increasingly called for the development of an inventory of best practices to assist professionals when planning and developing support programs and outreach initiatives (Casazza & Bauer, 2006; Payne et al., 2017). A logical step when working toward building collaboration between LCPs and faculty members is conducting a needs assessment (Payne et al., 2017).

Methods

According to Grant (2002), in the context of learning needs assessment, gap (or discrepancy) analysis is a formal method used to compare performance with stated intended outcomes to inform planning. The purpose of this needs assessment was to examine gaps between the current state of learning center services and resources and the intended outcomes of personalized support, clarity of services, and shared accountability for student success. The current state was examined with a focus on student knowledge, faculty knowledge, and the curriculum relating specifically to writing, statistics, and learning center services and resources. To obtain a more robust interpretation of gaps, the perspectives of administrators, faculty members, and students were solicited, as Lee, Altschuld, and White (2007) argued that multiple stakeholders should participate in a needs assessment. An instrumental single-case study design was employed to gain greater insight into a single, unique phenomenon (Stake, 1995).

Participants

To understand the various stakeholders' perceptions, all administrators who could thoroughly report on the students, faculty members, and curricula in their school (School of Education, School of Business, School of Social and Behavioral Sciences) were invited to participate in an interview via email. Four administrators agreed to participate (two from one school, one from each of the other schools). Interviews with these administrators were completed separately by school due to potential school-level differences. For example, administrators in one school also worked directly with a small number of students in a faculty role, whereas those in the other schools did not. Additionally, faculty members who were teaching the first three foundational courses in each school were invited via email to participate in a group interview. This group of faculty was selected because results of research (e.g., Willging & Johnson, 2009), as well as university-specific data, indicated that students who drop out of their online program are most likely to do so in the first few courses. Therefore, it seemed that these faculty members, in particular, might offer important insights into how meaningful learning learning assistance can be provided to promote student success.

Of the 22 faculty members who met the inclusion criteria, five volunteered to participate. They were then asked to complete an online form to indicate their availability, and a group interview was scheduled accordingly. At least one faculty member represented each of the three schools. All five participants who volunteered attended a group interview via GoToMeeting, online meeting sofware. Once the interviews with the administrators and faculty members were completed, all students who were currently working with those five faculty members in the first three courses were invited via email to participate in a group interview. Only these students were recruited to allow for an examination of the degree of agreement between them and both the faculty member with whom they worked and the administrator(s) in their school. Of those students, six volunteered to participate and were asked to complete a form to indicate their availability. A group interview was scheduled accordingly. However, only one student attended, so an individual interview was conducted via GoToMeeting. Student recruitment procedures were repeated a month later in an attempt to hear from more students. Of those students, seven agreed to participate and were asked to complete a form to indicate their availability. Again, a group interview was scheduled accordingly; however, no students attended the scheduled interview. The students who contacted the researchers after expressing interest but not attending the interview indicated that family and work responsibilities hindered their participation. The decision was made to move forward with responses from the one student, as it seemed that the targeted students were unwilling and/or unable to participate under the study conditions.

Instrument

Both the primary investigator (PI; leads the learning center) and the co-primary investigator (Co-PI; supports the leader of the learning center) developed the semi-structured interview protocol that was used to guide the interviews following a review of relevant scholarly literature. This strategy not only allowed for consistency in the questions but also provided the opportunity for follow-up questions so that each participant's experience shaped the narrative, resulting in thick, rich descriptions in the responses (Kvale & Brinkman, 2009). The questions were the same for all participants, regardless of role (i.e., administrator, faculty member, student) to allow for an examination of convergence and divergence within and across both schools and roles. The instrument was sent to all prospective participants prior to their interview to maximize transparency as well as give them time to reflect on the questions and prepare robust responses (Stacey & Vincent, 2011). Questions focused on the following areas of learning center services and resources: need for support in written communication and quantitative reasoning; learning outcome development; skills that hinder academic progress; conditions under which students seek assistance; current knowledge of learning center services and resources; and gaps in knowledge of learing center services and resources.

Data Collection and Analysis

Once the interviews were scheduled, participants were sent a GoToMeeting link that allowed them to connect with the researchers via teleconference during the scheduled date and time. Both the PI and the Co-PI had their webcams on so that all participants could see them during the interviews. Participants were invited, but not required to do the same, and two participants shared their cameras. In addition, participants could enter any name that they preferred. No demographic data were collected from participants to limit any risk associated with their participation. The PI facilitated each interview, whereas the Co-PI took notes and maintained an audit trail. They both asked probing questions if additional information could be helpful and answered participants' questions as appropriate. Participants were informed that all interviews would be audiotaped and transcribed verbatim for subsequent analysis. All participants indicated their informed consent. The interviews were transcribed by a professional with expertise in learning assistance who signed a nondisclosure agreement.

The transcripts were analyzed using thematic analysis with the goal of identifying, analyzing, and reporting patterns (themes) in the data (Braun & Clarke, 2006). The data were organized and described as concisely and richly as possible (Braun & Clarke, 2006). When interpreting the data, the researchers were not guided by any one existing theoretical framework. Instead, they took into account their broader knowledge of the scholarly literature on learning assistance in higher education and their professional expertise. Nevertheless, to avoid any biased interpretations or selective focus on particular fragments of the transcripts, the researchers closely followed Braun and Clarke's (2006) six-phase approach (familiarization with the data, generating codes, searching for themes, reviewing themes, defining and naming themes, producing a report) as well as included a third researcher unaffiliated with the learning center. Both descriptive and in-vivo codes were used as appropriate (Kvale & Brinkman, 2009).

In the first phase of data analysis, the researchers read and re-read the transcribed interviews to familiarize themselves with the data. To aid in data-driven coding, MAXQDA (VERBI Software, 2016) was utilized. The PI and Co-PI independently coded the first administrator interview before coming together for discussion. Given the level of agreement in developing key phrases and the overarching narrative, they then coded the remaining interviews based on their shared understanding of the patterns in the data. Once they completed all the coding, they came together again for discussion to ensure alignment of codes and categories. A third researcher, an assessment expert with no direct role in the learning center, confirmed that their level of agreement was adequate after discussing any differences in the wording of codes with the PI and Co-PI. Following the recommendation of Campbell, Quincy, Osserman, and Pederson (2013), the coding scheme was refined until all researchers were satisfied with the level of agreement. Then, all three researchers generated themes from the codes and categories. Finally, they decided upon the final themes, and the PI and Co-PI reanalyzed the data accordingly.

All participants were given an opportunity to select their own pseudonym. If they had no preference, a pseudonym was selected using a random name generator. In addition, member checking was completed by sharing findings with participants and having them confirm whether the findings were an accurate reflection of their experience.

Findings

Through thematic analysis, the researchers identified and examined patterns in the responses from administrators, faculty members, and one student. Three overlapping themes were developed: (1) Garden through instead of weed out: The need to empower every student to succeed by addressing their unique needs through personalized support, rather than pushing out those who are perceived as underprepared. (2) Caught like a deer in headlights: The need to prevent struggling students from feeling overwhelmed if they wait to engage with the learning center until the situation is dire. (3) Take a horse to water: The need to direct students to specific services and resources based on their unique needs and motivate them to use the services.

Garden Through Instead of Weed Out

This theme relates to the reported need for awareness of and responsiveness to common challenges and growth areas of each individual student as well as the student population as a whole. Several administrators and faculty members mentioned that some faculty members try to weed out underprepared students instead of helping them to grow by suggesting that they use learning center services and resources. According to administrators and faculty members, one challenge involved in working with students is that many of them lack adequate foundational writing and statistics skills. For this reason, administrators and faculty members agreed that it is ideal if students engage with LCPs early and often, as some skill development requires guided practice, which can be time-consuming.

Two administrators spoke to the importance of recognizing that every student has unique needs, as evidenced by statements such as "some learners have such varied needs" (Jane) and "some students come to the table with different levels of proficiency" (Blake). Descriptions of varying levels of student competence, especially in writing, were generally presented as a challenging part of their role by faculty members as well as one administrator. Jane discussed the importance of faculty members' helping students to bloom into scholars. According to Jane, some faculty members "feel like the student should already know [about services and resources]. It is sort of the idea [that the faculty member] graduated from this top-of-the-line doctoral program and, therefore, they want to teach like it's that type of program." Jane added:

> Sometimes they [faculty members] do not want to work with the learners we have; they want to work with the learners they want. So, they are hesitant to include those things [links to learning center services and resources in feedback to students] because they think, 'Well, they are graduate students. They need to figure it out for themselves.' They do not see learner support as necessary or [as] valuable as it should be….The whole idea of **gardening through instead of weeding out**. Some faculty still have this weeding out mentality.

Although it is unclear on what evidence such evaluations were based, faculty members provided indirect support for the notion that they hold expectations regarding what skills graduate students should possess when they enter their program. Sydney stated, "There are a good proportion of our students who are not where they should be, considering they are in a graduate program." Nevertheless, this faculty member also spoke about the appropriateness of working with students who need support to develop foundational skills in the first few courses. Whereas both administrators and faculty members expressed that they care about students and want them to do well, they provided few details regarding what they do once it is determined that a student might lack adequate skills to succeed. Liliana, an administrator, described the response of some faculty members when they were encouraged to provide a different and/or higher level of support to struggling students: "Sometimes, there is pushback. Like, [they say] you don't need to put that [a link to a resource] in there [assignment feedback]; students just need to figure it out."

To help students to grow, numerous administrators and faculty members noted the importance of understanding common challenges that many students who enroll in their particular institution face. For example, several of them highlighted the significant length of time that has passed since some students were enrolled in a university, which can create additional obstacles in an already challenging experience. In addition, they mentioned that students at their university often work full-time, leaving limited time for their studies. Sydney stated:

> I also think for some students, they are thinking as [engaging with the learning center] is 'one more thing that I have to do. I already probably do not have time to even do my assignments, and I am working.'

Therefore, Blake argued that instructional and learning center efforts should be aligned with how and when students learn:

> I don't think we can ignore that [many students work full-time and, consequently, have limited time]. That is not to give them a pass; it is that we need to be extremely effective in how we provide tools for them so that they can get the help that they need. So, I think that they are just really having problems.

Furthermore, Jane indicated that personal factors might be potential obstacles for some students: “I think recognizing the impact of poverty on many students who attend open-access universities…. Some students can actually be sabotaged by friends and family members who think, you know, why are you trying to be better?”

All administrators and faculty members also cited specific skills with which their institution’s student population generally needs the greatest amount of assistance in developing. The majority of their responses related to writing and statistical competence. While describing the uniqueness of each student, differences were specifically noted in the level of writing competence. According to Liliana:

> I think that there is a variability of students that come into the program with diverse basic skills. Like the skills that they enter into the program with. Some students come as very good writers, but other students lack those skills.

Blake focused on the varying level of writing competence within the individual student, depending upon the context: “Some [students] can write well in [their field], but they don’t write well when it comes to scholarly writing.” This administrator also noted:

> I think it is the way we write our curriculum. We are trying to give them applied experiential learning so that they can apply it. The reality is, especially if you are a Ph.D. student, you still need to learn how to write like a scholar.

To a lesser extent than writing, administrators and faculty members also focused on statistics. Two commonalities were found across the participants’ responses. First, they shared their belief that statistics are scary or intimidating to many people. Second, they reportedly know much more about students’ specific struggles with writing than statistics. According to Blake, “I think everybody knows that just the word 'statistics' scares most students." Similarly, Jane reported, "Statistics are scary. Knowing how to choose [the correct test] is scary." Jane offered her perception of why students can struggle: "I think that part of it is past experience with statistics. So, that fear is already there whether they have taken a course here or not." Beyond these statements, administrators and faculty members had difficulty explicating what exactly was so scary about statistics or with what specific skills students had difficulty. Jesse, an administrator, stated, "Students can get kind of hung up in stats classes, but I can't really break that down for you."

Both administrators and faculty members agreed that students who need to develop writing and statistic skills would benefit from early and ongoing support from LCPs. Blake explained:

> I find most of the challenges are that students don't start early enough utilizing your resources….If we could catch them early on in the enrollment process, they can go ahead and explore these resources before they begin their course. When I get them, a lot of them have not really taken the time to look at resources.

Blake also argued that some skill development "simply takes practice. It just takes deliberate practice. There is no way to pour that in anybody's head." Blake also emphasized that many students may not understand the process or approach behind a certain skill (e.g., synthesis) to practice on their own; therefore, they need someone who is knowledgeable to break it down into manageable steps and direct them on how to practice. According to several administrators and faculty members, given the varying strengths, growth areas, and needs of students, early efforts toward skill development can help students to grow as scholars.

Caught like a Deer in Headlights

This theme relates to reports by administrators, faculty members, and the student regarding why students might wait too long to seek services or not seek services at all at the university learning center. These reasons included misinformation, limited to no information, a lack of communication with faculty members as well as a lack of visibility and accessibility of the learning center. According to administrators and faculty members, when students encounter a threat to their academic survival, they might feel overwhelmed and unsure of what to do or where to go. However, under such conditions, they may not take any action at all.

Administrators and faculty members described strategies that they use to encourage students to seek support early. Blake argued that students should not "wait until you get to your dissertation, and you're **like a deer in headlights** and all of the sudden you are now discovering the [center]." Similarly, Jane stated that the goal is "not to overwhelm them [students], right? …If you have a student who is struggling on more than one competency, and they get a lot of negative feedback too early, it is demotivating, and they are going to quit. We do not want that." For this reason, many of the participants emphasized the importance of being knowledgeable about what services and resources are available through the learning center as well as how these services work.

One potential explanation for students' waiting until later in their program to seek assistance is the common belief among both administrators and faculty members that students see the learning center as providing an emergency service; therefore, they might not think about engaging with LCPs until they are in danger of failing or being dismissed. Blake explained:

> What happens is they are really not spending time in the [learning center], unless they are in an emergency situation. 'I do not know who else to talk to. I can't talk to my professor. I gotta get some help. I need to turn this paper in.'

Consistent with this assertion, when asked if he had visited the learning center, Berat, a student, responded:

> I just completed my first class.… I did really well in the first course, but the second course hit me a bit hard, so it [exploring learning center services and resources] is something I am going to do in the future. I just have not

> had the need to do it.

Despite the aforementioned belief among administrators and faculty members that students should engage with LCPs early and often, according to faculty members, students reportedly wait until their situation is dire, then feel stuck and do not know how to overcome the challenges they are facing. Sydney explained, "I find that the majority of students that I feel really need it [academic coaching] wait for not just the recommendation of faculty but often almost some kind of consequence." Mikato, a faculty member, supported this idea:

> When students see a B, nobody calls me but when I give them a 72, which shows up as an F, then I am not even off the computer, and they are calling me, 'Why did I get an F?' There is something triggering it [their seeking additional learning assistance], and it has to be something severe.

Misinformation seems to be another factor keeping students from accessing learning center services in a timely manner. Prevalent in the responses by administrators, faculty members, and the student were two forms of misinformation: (1) their own sharing of information that they thought they knew about the learning center that was not accurate and (2) others' sharing of information that the participants recognized was inaccurate. For example, when the student was asked if he was aware of the learning center, Berat stated, "I know an academic assistance center helps out if you have disabilities, if you are military, if they are deployed, or on active duty." It apparently was not clear to him that all students have access to the learning center or the specific services offered. When asked if he had used learning center resources, Berat applauded the library's resources. Whereas the student was enthusiastic about an available learning resource at the university, he seemingly did not have a clear understanding of the distinction between the learning center and other departments, such as academic advising and the library.

Similarly, faculty members discussed their experiences with students' misunderstandings of the learning center and its scope of service. Reportedly, many students mistakenly believe that the learning center offers line editing or tutoring services as opposed to academic coaching toward skill development. Sydney described similar misunderstandings among school leaders, possibly due to outdated information:

> I'll hear the administrators talk about how a student said someone in the [learning center] cannot look at their papers, but they actually can. There is a lot of misinformation I think on a lot of different levels… I think it is really hard to get accurate information to everybody always. There is old information.

Two administrators wondered if misinformation based on previous experiences might continue to influence perceptions and usage of the learning center. Jesse recalled, "At one point, accessibility was an issue." Likewise, Blake stated that there was "so much information on the webpage that a student could get overwhelmed… I looked recently, and it is better now."

Three administrators admitted that they did not possess sufficient knowledge about the learning center and its services and resources, which might also contribute to students' not knowing what to do and where to go when they face academic obstacles. Blake said, "I am glad that you have statistics coaches, but I don't know how that works. I don't know if they [students] set up an appointment..." Liliana discussed limited knowledge about the learning center among the faculty as a whole:

> I think they know about the service in general. I don't personally think they know many details about how it actually works… Again, I might not know something they know. That is the impression that I am getting. That they know about the service and that they try to use it for the students that they perceive at risk or having some kind of difficulty with their skills, most likely writing and statistics.

Jane shared a similar perspective: "I think faculty [members] understand that the [learning center] is dedicated to helping students improve basic skills. I think they miss the more advanced services for folks who are further along. It is just not all lower-level or more basic skills."

Two faculty members and the student shared that communication between faculty and students about the center was also lacking: "I cannot really remember having a discussion with a student about the [learning center]" (Sydney), "I don't hear much about that [the learning center] from my students" (Mikato). Similarly, Berat replied that "before today, no one has really asked [if I have used the learning center]. They have just mentioned it." Potentially due to their not learning much about these services and resources from faculty members, students might not know what to expect prior to engaging with an LCP, which can be a barrier to their accessing learning assistance.

Take a Horse to Water (But You Can't Make It Drink)

This theme relates to reports by administrators, faculty members, and the student that many students do not utilize learning center services and resources, even though faculty members use various strategies to increase the likelihood that they will seek additional learning assistance. According to both administrators and faculty members, directing students to specific services and resources based on their needs is critical. Administrators and faculty members discussed the importance of closing the loop and stakeholders' (both inside and outside the learning center) sharing accountability for encouraging students to take advantage of center services and resources.

Given their previously mentioned belief that some students lack adequate skills to succeed, administrators emphasized the importance of helping them to understand what specific services and resources are available through the learning center. According to Jane, simply encouraging struggling students to visit the center, in general, might not be sufficient:

> You literally have to **take a horse to water**. You can't say, 'Go [to the center] and brush up on your grammar.

> You have to give them a specific link. And I was thinking, if we can start early in the program to reach students with some adaptive learning opportunities, then they will realize early on their strengths and weaknesses. Maybe that will drive them to take advantage of resources early on in their program.

There was agreement among both administrators and faculty members that many students who might benefit the most from learning assistance above and beyond what is offered in the classroom are often the least willing to seek it on their own. Jesse explained, “In my experience, they don’t go [to the learning center] until I encourage them or refer them, and, even then, a lot of them won’t go.”

Faculty members frequently described pushing students to seek additional learning assistance but recognized that they cannot force them to do so. According to Stacy, a faculty member, “I don’t see many students who initiate seeking any help.…Those who do are already pretty good. The students who need serious help, they do not initiate the connection until they are told to do so.” Likewise, Sydney stated, “I think it is really a matter of…you cannot force somebody to do something they do not want to do.” Similarly, Renata, a faculty member, reported that “students don’t always follow through. Sometimes it feels as if it is me pushing them to get the help that they need, but they just don’t follow through.”

To guide students effectively, administrators and the student reported that stakeholders must see the value in learning assistance; however, it is unclear whether there is a shared understanding of the value. The administrators seemingly assigned significant value to learning center services and resources. According to Jesse:

> I think if students start to realize, ‘Well, my writing skills are not going to cut it here. I could go pay for a community college course, or, look at this, they want to assign me a coach who is going to work with me at no extra cost and help me catch up.’ That is valuable.

However, these administrators did not appear to believe that students and professionals in other roles at the university necessarily shared their perspective. Blake stated, "Both the library and [the learning center] are critical to the success of our students," but added that "I think students don't necessarily know all the value that [the learning center] provides." Similarly, Jane replied, "I think that [the learning center] is viewed very positively and as a very important resource for the university to offer students." Nevertheless, this administrator subsequently said:

> I do think some faculty don't understand the value… Some people have not taken the time to identify the resources…and to use them. The gaps of knowledge are really about the value that the center can offer students that make faculty's jobs easier…it is sort of the idea of sometimes delegating is harder than just doing it yourself.

None of the five faculty members spoke directly about their perception of the value of the learning center. However, Berat, the student, stated, "I know a lot of students, they came [to the learning center] and they come back positive." Berat continued, "I mean it is all there for me. I have glanced at it [the learning center]. I have used it in previous schools. It has helped out."

To aid stakeholders in seeing the inherent value of the center's services and resources, there was a common notion among faculty members that there could be greater transparency in interactions with LCPs. According to them, when they encourage or direct a student to visit the learning center, they do not know the outcome, unless they ask the student or reach out to an LCP. Additionally, one administrator, Jesse, offered a suggestion:

> If there was ever an opportunity to collaborate with a coach or hear some follow up from a coach, that would be ideal. Like, so-and-so and I met for 30 minutes, and we talked about multiple regression.…It could be a phone call, a Skype, or a team meeting.… Closing the loop is good.

There was a consensus among the faculty members that automated notifications might be a way to increase transparency and initiate collaboration with LCPs. Stacy agreed:

> I would like to have a notification once I recommend someone to get help from the [center]. I assume that many of them do not go, and if I do not know, I have to ask them again. It would be very helpful to have just a one-sentence notification.

As another potential method for motivating students to utilize learning assistance, administrators discussed the importance of sharing accountability for student learning. Blake stated, "[Role playing talking to a student] You are developing your skills, which means you should be attentive and active in this process. I am the facilitator of this knowledge, not the sole giver, which means we must work together and are jointly responsible for your success." Blake described shared accountability in action:

> We are not trying to trick you; it's gonna be a lot of hard work. But we are going to give you all the tools that you need. And we are going to show you how to use them. And the rest is left up to them. I don't believe in spoon feeding; we are all accountable for their success.

Moreover, an administrator shared that faculty members often want to assist struggling students in their learning, but do not know where to start. Liliana discussed one experience with a student:

> I had a student submit a paper, and I was like…'Maybe I do not understand something.' But then, I figured out she was not constructing sentences in a way that they are supposed to be constructed grammatically. So, even though she had some good ideas to contribute, I just could not understand what she was writing. Where do you go with this kind of student?

Faculty members reported similar uncertainty:

> As faculty, sometimes, I'm just trying to figure out where do I even start to address some of the problems that students are having? Perhaps me being able to say from my evaluation of the student's work thus far, 'This student falls about here on the scale of being a proficient writer, and skills are needed in the next area, or they are really struggling in this area.' Just some sort of resource to kind of, at least, to kind of help guide and maybe to help students to see that they are making progress or that they have to put a lot of work to be the scholarly writer that they need to be for their respective program. (Renata)

> I do have a hard time when the student does not have the appropriate level of academic skills….And, in that case, I say go to the [learning center] to improve your writing. I offer to have weekly meetings with the student, but only some of them respond. In that case, in other words, if there are students who do not have the necessary skills in their academic study, I don't know where to start and how to help them. Other than recommending some resources and having frequent meetings and providing some intense feedback. It is very hard, and there is not an answer. (Stacy)

To ensure that all stakeholders share a consistent message with students, the administrators and one faculty member focused on the importance of the learning center's having a clear identity within the university that is highlighted through outreach efforts to provide an overview of services and resources:

> There's never enough help or enough resources. I think it is always a good thing if we collaborate so that we have a consistent message across the university for our students. I think that is very important. (Blake)

Several administrators and faculty members suggested that developing a clear identity can help to ensure that updated and accurate information about the learning center is disseminated university-wide. Additionally, according to these participants, it can promote the center's visibility among students who might not know about available services and resources. Sydney stated:

> I think students do not know where to go and…we say, 'Well, go to the [learning center]', and I know that is wrong…I know we have to be specific. But it is more helpful if we could have some [common language]. I think what I am saying is that I need more specifics to tell the students where to go.

Similarly, Jesse explained:

> Sometimes, I feel like I could use some help with my sales pitch for the [learning center]. I think more knowledge would help because sometimes it is a hard sell. That could be because I am not giving students an accurate picture of what their experience could be like.

Discussion

In response to Payne et al.'s (2017) call to employ a needs assessment to understand and meet students' needs relating to their academic success, this work examined gaps between the current state of learning center services and resources and the intended outcomes of personalized support, clarity of services, and shared accountability for student success. Three overlapping themes were developed: (1) Garden through instead of weed out: The need to empower every student to succeed by addressing their unique needs through personalized support, rather than pushing out those who are perceived as underprepared. (2) Caught like a deer in headlights: The need to prevent struggling students from feeling overwhelmed if they wait to engage with the learning center until the situation is dire. (3) Take a horse to water: The need to direct students to specific services and resources based on their unique needs and motivate them to use the services.

The Need to Empower Every Student to Succeed

When examining gaps between the current state of learning center services and resources and the intended outcomes, participants emphasized the importance of addressing students' unique needs. The idea that every student is unique and brings with them myriad preferences, experiences, and levels of expertise that must be considered by faculty and LCPs when working with students, especially adult students in online education, is also prevalent in the literature (Britt, 2015; Cercone, 2008). As enrollment at open-access institutions continues to grow (Aud et al., 2010), it is prudent for an institution's stakeholders to remember that "access without support is not opportunity" (Engstrom & Tinto, 2008, p. 46). To provide both access and support, educators and leaders have a responsibility to be aware of common challenges and growth areas of the student population as a whole and develop the appropriate types of assistance for them to develop as scholars (Engstrom & Tinto, 2008; Kuh et al., 2010). This notion is consistent with this needs assessment's findings. Both administrators and faculty members highlighted the importance of acknowledging challenges, such as students' professional and familial obligations. Therefore, when attempting to empower students to succeed, it is vital to be aware of the student population as a whole as well as individual student's needs to provide personalized support.

When investigating specific skills that students need individualized support to develop, writing and statistics were the two areas of focus for participants. Both administrators and faculty members agreed that working with students to develop foundational skills was crucial to increase their likelihood of success in their program. Research on graduate students' preparation in and struggles with scholarly writing is abundant (Hurst, Cleveland-Innes, Hawranik, 2013; Robinson & Bishop, 2017; Thomas, Williams, & Case, 2014). Consistent with the results of previous research (e.g., Hurst et al., 2013; Robinson & Bishop, 2017; Thomas et al., 2014), the findings of this needs assessment challenge the assumption that graduate students tend to enter their professional degree programs with adequate scholarly writing skills. Whereas both the needs assessment findings and literature suggest that students who enroll in graduate programs may need additional support in scholarly writing, faculty members, who are content area experts, may not always know how to provide writing support (Belcher 1994; Thomas et al., 2014). Specifically, in this needs assessment, both administrators and a faculty member described not knowing how to proceed with a student who struggled with sentence structure to such an extent that it hindered their ability to comprehend the meaning. Likewise, several administrators indicated that students often struggle with mastering the writing skills needed to "speak the language of scholars." Because students enter their program with insufficient writing skills, faculty members face additional challenges in trying to assess learning and determine how to provide support most effectively.

Relative to the literature on writing preparation, research on graduate students' preparation in statistics is less extensive. However, an increasing amount of research has been done on statistics anxiety in the past two decades, as researchers have realized the effect of anxiety on academic achievement (Onwuegbuzie & Wilson, 2003). In this needs assessment, administrators described students who felt fearful of or intimidated by statistics. According to Onwuegbuzie (2004), statistics anxiety is common among graduate students, with as many as 80% of them experiencing it. Chew and Dillon (2014) reported that students in nonmathematical disciplines often consider statistics courses to be more anxiety-inducing than any others in their program. This heightened emotional state can have significant consequences. Bell (2003) contended that statistics anxiety likely is partially responsible for many students' delaying enrollment in statistics and research methodology courses and procrastinating when completing their assignments. Therefore, it might also be true that it could be a barrier to students' seeking timely assistance outside the classroom at the learning center. Whereas their awareness of students' statistics anxiety is important, the administrators in this needs assessment were unable to identify with what specific concepts and skills students struggled or why they might be experiencing difficulties in statistics beyond their own emotional experience. This lack of clarity might make it difficult to assist students in overcoming statistics anxiety both in and beyond the classroom. Nevertheless, it also presents an opportunity for collaboration, as the LCPs at the university can share with their colleagues in the schools with which concepts and skills students are seeking support.

The finding that many graduate students lack the foundational writing and statistics skills needed to succeed is consistent with the literature (Hurst et al., 2013; Robinson & Bishop, 2017; Thomas et al., 2014). Several administrators reportedly perceived that some faculty members operated under the assumption that students need to find solutions for themselves. Some faculty members may view students who lack basic skills as antithetical to graduate education (Thomas et al., 2014). However, if students do not know what they need to "figure out," then they may become frustrated or overwhelmed, as both faculty and administrators discussed in this needs assessment.

Administrators and faculty members also discussed the need for students to practice these basic skills, as skill development often requires guidance and repetition. Participants focused on the need to motivate students to go early and often to the learning center, which may allow them to develop the skills needed to be successful when they otherwise might not be (Hurst et al., 2013; Thomas et al., 2014). Research on learning centers supports the assertion that skill development takes practice (Thomas et. al., 2014) and that LCPs can assist with skill development (Griffiths, 2015; Griffiths & Campbell, 2009). Both administrators and faculty members highlighted that students often need someone in front of them breaking down the steps of a skill into manageable steps and directing them how to practice. Previous research supports the use of a student-centered coaching model that focuses on skill building and learning the process of those skills (Griffiths, 2015; Griffiths & Campbell, 2009). Therefore, LCPs should bridge the gap between the struggling student who needs support and the faculty member who is aware that the student needs additional support but is unsure of what that would look like (Arendale, 2010; Masiello & Hayward, 1991). Even when faculty members possess expertise in teaching course content and the conventions of the discipline as well as course competencies, they can still benefit from collaborating with LCPs to identify students who need additional support and assist them most effectively (Robinson & Bishop, 2017). Likewise, LCPs' work should be informed by faculty members, especially to learn what strategies have been used with a student so far and the extent to which they have been effective, to increase students' competence in the areas in which they struggle. This collaboration between faculty and LCPs should be seen as a step toward personalizing education to meet students' unique needs.

The Need to Prevent Struggling Students from Feeling Overwhelmed

Even when a learning center has highly credentialed professionals who employ a student-centered model, the students who would benefit from learning assistance the most may not necessarily seek help on their own (Casazza & Bauer, 2006; Hao, Wright, Barnes, & Branch, 2016; Masiello & Hayward, 1991). A common perception both in the literature and in these findings is that students often see learning assistance as being associated with struggling in courses and, therefore, are hesitant to seek support (Hurst et al., 2013; Thomas et al., 2014). However, learning assistance is not just for remedial students (Arendale, 2010). It is critical that stakeholders view learning assistance as a normative experience. Even though many graduate students struggle with developing the skills needed to succeed in their program (Britt 2015; Cercone 2008), they often are encouraged to be self-directed, autonomous learners (Hurst et al., 2013). Therefore, students, especially graduate students, might feel reluctant to admit that they need assistance.

In this needs assessment, participants could not provide specific data to support their belief that students are hesitant to seek support. However, both faculty and administrators provided anecdotal evidence that students often wait until they face a threat to their academic survival, such as failing a course. Then, because they do not fully understand the services and resources offered or the protocol for using them, they become overwhelmed and may decide against seeking assistance. Additionally, the student participant described not visiting the learning center yet because there was not a need due to doing well in the first course and just beginning to struggle in the second course. One way to begin to address the hesitance of students to utilize learning center services and resources

(Arendale, 2010; Hurst et al., 2013) is to create a culture of inclusive support for all students so that they feel welcome to seek learning assistance. Under such a condition, students could be more likely to take advantage of the services and resources available before they encounter a serious threat to their success. Also, they may be more likely to follow the recommendation of a faculty member to seek academic support above and beyond what the faculty member can provide as the needs assessment findings indicated that even when students are encouraged to seek learning assistance, they do not.

The findings of this needs assessment showed that misinformation, limited or no information, and limited or no communication among stakeholders about the services and resources available in the learning center may contribute to students waiting until later in their degree program to obtain help or until an "emergency" (e.g., potential failure or dismissal) occurs. Learning centers traditionally have operated in the margins of universities, with both faculty members and LCPs struggling to reach the students who need support the most (Arendale, 2010; Boquet, 1999). Due to this marginalization, in this needs assessment, faculty members, administrators, and the student all reportedly struggled with articulating the learning center's scope of service. Faculty members spoke about the importance of having someone other than a faculty member who is knowledgeable about writing and statistics assist students with skill development. However, they also admitted that they rarely talked to students or other administrators and faculty members about the center. Furthermore, they were unsure about how to start a conversation with students about seeking learning assistance, which is consistent with previous research findings (Arendale, 2010; Boquet, 1999, McGuire & McGuire, 2015). If LCPs want students to make the connection between their educational needs and the support available to them, two conditions must exist: (1) the resources need to be visible and (2) the services must be accessible (Paiz, 2018). Therefore, moving learning centers out of the margins to increase visibility and collaboration is paramount to achieve the intended outcome of stakeholders clearly understanding the center's services and resources.

The Need to Direct Students to Specific Services and Resources

To reach the struggling student who is hesitant to seek support, faculty members often need to be purposeful in (1) communicating with students that assistance is a normative part of the learning experience (Arendale, 2010); (2) showing students how utilizing services and resources can meet their unique educational needs (Hurst et al., 2013); and (3) directing students to specific services and resources to support them in skill development (Paiz, 2018; Thomas et al., 2014). At the university studied, a faculty member and two administrators grappled with being deliberate and clearly articulating why students would benefit from utilizing the learning center's services and resources. Given that the university is completely online, they cannot walk them to the center as they could at a brick-and-mortar institution. They reportedly encouraged students to take advantage of the learning center but noted that they could not force them to take advantage of the services and resources. One administrator discussed the need to be purposeful when sending links to resources and providing directives for students to follow, which speaks to Paiz's (2018) assertion that students need to connect the resource to filling a specific knowledge gap to see the inherent value. For administrators and faculty members to construct purposeful and convincing language that may entice the struggling student to utilize learning assistance, LCPs should initiate collaboration with everyone who shares accountability for student success. Such collaboration can ensure that stakeholders are speaking the same language regarding the center's role at the institution to provide targeted support to students (Arendale, 2010).

Researchers focusing on online learners often have cited collaboration as an important factor in engaging students (Britt, 2015; Hurst et al., 2013; Robinson & Bishop, 2017). Nevertheless, there is a lack of research on what successful collaboration looks like. Manning et al. (2006) stated that LCPs should be knowledgeable of each faculty member's willingness to collaborate and potential barriers to success before proposing a collaboration. In this needs assessment, one administrator welcomed collaboration, with an emphasis on closing the communication loop. Relatedly, two faculty members focused on the importance of increasing transparency between faculty members and LCPs.

Instead of operating in silos (Manning et al., 2006), they can develop purposeful partnerships (Arendale, 2010, Boquet, 1999; Masiello & Hayward, 1991). A step toward developing faculty-learning center partnerships involves ensuring faculty members know how students are progressing when they utilize learning center services. Therefore, when they guide students to learning assistance, they can speak genuinely to them about how its services and resources can be beneficial to their success.

Limitations

The findings of this needs assessment should be considered in light of its limitations. The purpose of this work was to develop a shared understanding of the desired future state of learning center services and resources at one completely online university. Whereas the use of a single-case study design was appropriate, given the unique nature of the completely online learning center and university that were the foci of this study, the findings might not be generalizable to other contexts. Moreover, only faculty members who were teaching the first three courses of a program were invited to participate, as students are most likely to drop out of online programs during this phase (Willging & Johnson, 2009). However, their experiences with students and learning centers might not mirror those of faculty who teach courses later in students' programs. Although attempts were made to recruit all students with whom the faculty members in the sample were working at the time, only one student of the several who expressed interest participated. The challenge of recruiting student participants might reflect the unique student population's (e.g., adult, working students with familial obligations) limited time for additional activities. However, it is possible that if faculty members and students at other points in the program had participated, different findings would have been generated. Furthermore, including the perceptions of LCPs (e.g., academic coaches) as well as having additional students participate could have led to even more robust and/or different findings, including more of a focus on the unique needs of students attending a completely online university.

It should also be noted that the instrument was self-developed based on a review of the scholarly literature on learning center needs assessment as well as the researchers' professional expertise in learning assistance. Whereas several strategies (e.g., maintaining an audit trail, member checking, presenting rich and thick descriptions of participants' responses to support findings, identifying similarities and differences across participants' responses to ensure that divergent perspectives are represented) were employed to increase the likelihood that the findings are trustworthy, the interview protocol was not pilot tested. It is possible that one or more questions were unclear or that important questions were not included. Relatedly, the data were self-reported to individuals in leadership roles associated with the learning center. It is possible that some participants did not feel comfortable sharing negative perceptions and/or accounts of the center's services and resources with them. To contribute to the knowledge on this topic, future researchers can address one or more of the limitations above.

Conclusion

If learning centers are at the crossroads between faculty and student support services, then LCPs can lead the charge forward for collaboration and shared accountability for student learning with faculty members and other support services providers (Arendale, 2010). To answer Payne et al.'s (2017) call to employ a needs assessment to understand and meet students' needs relating to their academic success, this research sought to examine gaps between the current state of learning center services and resources and the intended outcomes of personalized support, clarity of services, and shared accountability for student success. Based on the findings and literature supporting the findings, three next steps for LCPs are recommended. (1) Work with faculty, staff, and administrators to ensure they understand the learning center's inherent value in promoting student success. (2) Develop a clear identity for the learning center that is jointly developed with the above stakeholders. (3) Collaborate with other professionals in departments who have similar student-driven missions (e.g., the library) to create a seamless experience for students. Alvarez and Risko (2000) contended that education not only involves classroom interventions but is also an institution-wide responsibility. To that end, it is the responsibility of LCPs at this institution to use this needs assessment as a catalyst to engage institution stakeholders and develop a culture in which accessing the learning center is seen by all as a normative and expected part of the student experience.

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