Are Faculty Prepared to Teach Flexibly?: Results from an Evaluation Study

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Prior to the COVID-19 pandemic, there were hardly any formal/established professional development (PD) programs that intentionally prepared faculty to teach flexibly. The uncertainty around the modality of the fall 2020 semester, required faculty to be prepared to teach their courses in flexible methods in order to meet the needs of their students and the constraints of their institution. This article is an updated report on the evaluation of the Flexible Teaching for Student Success (FTSS) Initiative at Boise State University—a three-tiered faculty development initiative designed to prepare faculty to teach their courses in flexible formats. Evaluation surveys and a follow up survey were delivered to participants to assess the overall impact of the initiative on teaching practices. Results indicated that faculty had overall positive experiences in learning how to teach flexibly. The ratings were slightly more positive for Tier 1, which was of longer duration and more intensive, compared to Tier 2. Faculty in both tiers felt that purposeful training in flexible teaching made positive impacts on student learning. Implications drawn from the FTSS Initiative are shared to help inform the design of future PD programs that prepare faculty to teach flexibly.

Introduction

Teaching and learning during the COVID-19 pandemic has been daunting for most instructors and students. Uncertainties require flexibility and the willingness to change with the needs of the circumstance. To truly embrace flexible teaching, faculty need to be prepared to pivot to different teaching environments to match the learning needs of students. Faculty development units in many universities embraced the pandemic conditions as an opportunity to prepare faculty to teach flexibly during and beyond the pandemic. This situation offered a chance to identify ways in which faculty

can be equipped to support student success and learning continuity for all students, irrespective of the learning modality.

Faculty who, due to the pandemic, converted their existing courses into distance learning formats reported experiencing higher workloads and stress as compared to teaching face-to-face (Marek et al., 2021). On the flip side, pandemic uncertainties also made faculty realize the importance of adaptability and good planning. In terms of preparing faculty to support student success during and beyond the pandemic, it seems like faculty will continue to need training in online course design as part of their long-term professional development (PD). More importantly, they will need to be flexible regarding their teaching modality. In the long-term, are faculty prepared to teach flexibly? What resources are institutions providing faculty to be prepared? How do we/how will we know that faculty are ready to teach flexibly?

This study reports on the evaluation of the Flexible Teaching for Student Success (FTSS) Initiative that was designed to help prepare faculty to teach flexibly during the COVID-19 pandemic. A complete description of this initiative can be found in an earlier publication by the same authors (Bose, et al., 2020). In this present article, we report and discuss the results from a follow-up survey and present an analysis of whether this initiative met its intended goals. Based on the lessons we learned, we draw implications that may be helpful for planning future faculty PD on flexible teaching.

Literature Review

As we move forward into a post-pandemic era of teaching and learning, this may be a good juncture to reflect on PD that faculty in higher education are traditionally accustomed to. Are faculty sufficiently equipped to teach all students and to pivot from their current teaching modality to other modalities if needed? This context is important because it may help us analyze how current and future faculty PD programs can or cannot support flexible teaching. For the purposes of this article, "flexible" is used to describe the "adjustable format in which a course can be delivered. Flexible teaching is marked by the ability to deliver course content synchronously and asynchronously, in face-to-face, blended, hybrid as well as in remote learning formats" (Bose et al., 2020, p. 89), depending upon the needs of students and constraints of the teaching and learning environment.

While we viewed this literature, an important aspect guiding our lens was whether there were established PD offerings that prepared faculty to teach flexibly prior to the COVID-19 pandemic. Though there are various modalities (face-to-face, online, hybrid, blended, etc.) in which faculty have taught in the past and are teaching during the pandemic, the review of literature in this article specifically addresses faculty development that may or may not have prepared faculty to teach flexibly, i.e., pivot to other modalities of teaching if needed. At the time of writing, literature on flexible teaching and faculty development on that form of teaching was sparse. However, our review of the literature on faculty preparedness for flexible teaching indicated that faculty preparedness to teach in response to natural disasters/emergencies and to teach using the principles of Universal Design for Learning (UDL) bore close resemblance to preparation for flexible teaching.

Preparing to Teach in Response to Natural Disasters/Emergencies

Prior to 2020, most emergency pivots were done in response to natural disasters and human-made emergencies (e.g. terrorist attacks, mass shootings). In many ways, the response to the COVID-19 pandemic was similar to natural disasters like Hurricane Katrina on the United States' Gulf Coast (Shaw et al., 2020). In both cases, campuses initially responded by closing down temporarily. Later, the realization set in that the closure was more long term than anticipated. This situation brings forward an important question: How were faculty prepared to respond to sudden, unplanned changes in the teaching and learning scenario prior to the COVID-19 pandemic? Were there established PD programs that faculty could take as a matter of course, programs that prepared them to pivot in case a disaster occurred?

A pre-COVID-19 era study of the websites of 50 state flagship institutions of higher education, aimed toward determining whether online or distance learning was included in the institutions' emergency plans to counter emergencies like the H1N1 outbreak, indicated that two-thirds of the institutions did not include any reference to online learning as a way to maintain learning continuity (Meyer & Wilson, 2011). Meyer and Wilson (2011) noted that one-third of the institutions did include suggestions to faculty on finding alternative ways to deliver courses using technology and or specific tools. Of these institutions, only one specifically mentioned online learning.

Web-based resources like the Keep Teaching Knowledge Base created by the Indiana University System (Indiana University, 2020) provided faculty access to some general principles to consider when communicating with students during closures, as well as specific strategies for continuing different teaching tasks virtually, e.g., delivering lectures, communicating with students, distributing assignments, and assessing student learning (T.Tarr, personal communication, November 11, 2018). Similarly, the Stockton University Instructional Continuity Planning—Emergency Response Preparedness webpage provided resources "to assist faculty in making good pedagogical and technical decisions to assure the continuity of instruction in the event of a personal or University-wide emergency" (Stockton University, n.d.).

Preparing to Teaching Using UDL Principles

Continuity of learning during the pandemic most often meant that faculty had to be flexible in how they taught and needed to create a learning environment where all students could learn and demonstrate their learning in more than one way. Pre-pandemic, many faculty were already familiar with the principles of UDL (Westine et al., 2019). While UDL can be defined in various ways, for the purposes of this article, we define UDL according to a description from the Center for Teaching Innovation at Cornell University (n.d.):

A teaching approach that works to accommodate the needs and abilities of all learners and eliminates unnecessary hurdles in the learning process. This means developing a flexible learning environment in which information is presented in multiple ways, students engage in learning in a variety of ways, and students are provided options when demonstrating their learning. (Center)

The benefits of UDL include its provision of an approach to curriculum and instructional design that creates flexible instructional goals, methods, materials, and assignments (Smith et al., 2019, p.174). Prior to the COVID-19 pandemic, what kinds of PD programs were available to all faculty, irrespective of whether they needed or wanted to include flexibility in their course design and materials?

Our (Devshikha and Rob's) survey of literature indicated that pre-pandemic, short (one-off workshops) and longer (faculty learning communities, communities of practice, institutes/academies) PD as well as website-based resources on UDL existed. Workshops of one- to three-hour duration helped faculty to learn specific strategies like teaching using supportive communication practices (Miller & Lang, 2016). Full-day workshops helped faculty to learn how to overcome barriers to learning by building in multiple means of

representation, expression, and engagement in their teaching practice (Dalton, Mckenzie, & Kahonde, 2012). Longer-duration PD offerings like multiple-day workshops focused on universal design for instruction (Rodesiler & McGuire, 2015; Park et al., 2017) and two-phased academies (Hromalik et al., 2020) prepared faculty to implement UDL principles in teaching.

One of the pioneers of improving education using flexible methods and materials was the Center for Applied Special Technology (CAST), a non-profit education research and development organization that created the UDL Framework and UDL Guidelines (CAST, 2018). While many universities/colleges provide web-based resources on UDL, some noteworthy ones include the teaching and learning resources from the UDL Initiative at Oakland University, Center for Excellence in Teaching and Learning (*Universal*, 2017), Plymouth State University Open CoLab (*UDL*, n.d.), and the UDL Guide from the University of Calgary (La et al., 2018).

Faculty had access to UDL resources through initiatives like the College STAR (Supporting Transition Access and Retention) faculty development modules and case studies (College STAR, n.d.). Audio resources through podcast websites like "Think UDL" (Think UDL, n.d), and episodes like "Introduction to UDL in 15 Minutes" (Nelson, n.d.) and "Universal Design for Learning" (Hofer, 2015) also existed. Hence, with their prior knowledge of UDL, most faculty were somewhat positioned to pivot when the pandemic imposed barriers to teaching and learning.

Background

Like faculty across the globe, those at Boise State University were also preparing to teach in an uncertain environment during fall 2020 and beyond. However, due to the uncertainties imposed by the pandemic, faculty were not sure whether they would need to pivot. In summer 2020, most faculty were off contract and had differing schedules of availability for PD. Moreover, faculty were not homogeneous in terms of their prior knowledge of, experience with, and preference for online teaching. Faculty developers needed to respond to these heterogeneous needs if they were to prepare faculty to support student success.

Flexible Teaching for Student Success (FTSS)

To prepare faculty to teach flexibly and effectively in fall 2020, the Center for Teaching and Learning (CTL) at Boise State University in partnership

with the eCampus Center, offered in the summer of 2020 a three-tiered faculty PD initiative called the Flexible Teaching for Student Success (FTSS) Initiative. In order to model flexibility, the FTSS had a three-tiered design with "content [that] was similar across the tiers but varied in the depth of the learning experience, giving faculty the opportunity to select the option that best aligned with their needs and availability" (Bose et al., 2020, p. 90). Of the three tiers, Tier 1 was an online, highly facilitated, three-week long institute (p. 91). Participating faculty were expected to engage asynchronously with the content for approximately 36 hours. Tier 2 Workshops consisted of week-long asynchronous online workshops in various topics, the content of which was adapted from the institute. The Tier 3 Resources consisted of independent access to web-based resources and regularly scheduled help sessions facilitated by instructional designers from the CTL and the Boise State eCampus Center (p. 93).

Bose et al. (2020) provide a detailed description of the design of the FTSS Initiative as well as discussion of the faculty/participants' initial perceptions of the PD experience. The aim of this evaluation study is to examine the experiences of participants in greater depth. Through deeper examination of evaluation surveys delivered during the FTSS sessions and a follow-up survey that was conducted in the middle of fall 2020, we provide both formative and summative data regarding the FTSS experience. Our hope is that this examination will affirm the approach that was utilized while at the same time help us to draw conclusions regarding the broader implications of the FTSS Initiative as the basis of a future training program that can be used to prepare faculty to teach flexibly, beyond the pandemic timeframe. The following research questions guided the researchers' inquiry:

RQ1: To what extent did the FTSS Initiative meet its programmatic goals?

RQ2: What were faculty perceptions regarding their experience with FTSS?

Method Measurement Tools

Several instruments were utilized to collect evaluation data for this study, differing dependent on the tier in which the faculty member was enrolled. For Tier 1, data was collected through an evaluation form delivered at the end of the institute. For Tier 2, data was collected via an evaluation

form delivered at the end of each individual workshop and in an evaluation form that was filled out once a participant had completed stipend requirements—completion of three workshops and a FLIP (Flexible Learning and Instruction Plan) document (Bose et al., 2020).

Due to the speed at which the program and evaluations were developed during the pandemic, consent and an Institutional Review Board (IRB) was not in place for initial FTSS participants. However, once the IRB was approved, consent information was placed into each of the evaluation instruments. Only data for those who consented to participate is included in this study. The questions used for evaluation for Tiers 1 and 2 are included in Appendix E of the Bose et al. (2020) article. Participants in Tier 3 were not asked to complete any evaluations; hence, no data is included in the present study.

Additionally, a follow-up survey was created to assess the longer-term impact of the FTSS Initiative on faculty who participated and the students that were enrolled in their classes. This survey was distributed in October of 2020, nearly 2 months after the beginning of the semester. Appendix A outlines the questions that were included in this survey. An earlier version of this survey was presented in Appendix F of the Bose et al. (2020) article, which was later revised to include additional and reframed questions.

Respondents

Tier 1 Evaluation

Overall, 81 participants consented to have their evaluation responses used for research purposes. Because of the timing in which the IRB was approved and consent was implemented, a majority of these responses come from the later sessions: none from Session 1, two percent (N = 2) from Session 2, 52 percent (N = 42) from Session 3, and 46 percent (N = 37) from Session 4. No

other demographic information was collected from participants as part of this evaluation.

Tier 2 Evaluation

Seventy-nine participants in Tier 2 agreed to have their evaluation responses included in the research study. It should be noted that evaluations were not tracked at the individual participant level; therefore, an individual may have filled out multiple responses—one for each of the workshops in which they participated. Table 1 shows the distribution of evaluation responses across all of the offered workshops.

Table 1 Breakdown in Evaluation Responses by Workshop				
Workshop	n	%		
Establishing Instructor Presence	15	19		
Strategies for Providing Effective Feedback	15	19		
Active Learning in Asynchronous Settings	19	24		
Creating Courses that Meet the Needs of All Students	5	6		
Building Inclusive Learning Communities	10	13		
Integrating Flexible Assessments	15	19		
Total	79	100		

In addition, Tier 2 participants also completed an additional evaluation form when they had completed the three workshops that were required for the stipend. A total of 66 faculty consented to have their responses to this evaluation used for research purposes. Of those that responded, 65% (N = 43) were full-time faculty, 20% (N = 13) were adjunct faculty, 9% (N = 6) were staff, and 6% (N = 4) were "other."

Follow-Up Evaluation

At the beginning of October 2020, a follow-up survey was distributed to 550 faculty who had completed one of the FTSS Tiers. A total of 171 faculty responded and consented to participate in the survey, resulting in a response rate of 34%. Of the respondents, 69% (N = 112) had participated in Tier 1, 30% (N = 49) had participated in Tier 2, and 1% (N = 2) had participated in Tier 3. Due to low response levels from Tier 3 participants, those data have been excluded from this analysis.

Data Analysis

Once evaluation and survey responses were collected, they were analyzed for descriptive statistics using Google Sheets and Qualtrics reporting tools. Open response questions were imported into NVivo for thematic analysis.

Results

RQ1: To what extent did the Flexible Teaching for Student Success meet its programmatic goals?

The first research question centers around the extent to which various aspects of the FTSS met its programmatic goals. Here we drew from multiple measures that were collected as part of the initiative to give us a better understanding of the impact of FTSS.

When the Tier 1 Institute participants were asked about the extent to which they felt that the institute met its intended learning objectives, most agreed that it helped them develop a variety of engaging learning activities and their ability to design alternative assessments. Since Tier 2 workshops were centered around a variety of topics, perceptions regarding meeting the intended outcomes were assessed a bit differently. Those that completed Tier 2 were asked to respond to the statement: "Tier 2 Workshops helped me feel more prepared to deliver my course flexibly in the future." Their responses are captured in Table 2 below. The overall level of agreement in this group was strong as well, with 98 percent of participants agreeing with the statement.

In the follow-up survey delivered in the fall, there were several items which sought to measure the impact of FTSS participation upon courses that

were delivered in that term. Participants of both tiers were asked to respond to the following question: "Imagine what your course would be like had you not participated in FTSS. How different do you think your course would be compared to what you delivered with FTSS?" While we recognize that this is a self-reported and somewhat speculative question, it is intended to get an initial sense of the extent to which the FTSS had an impact upon the course design of participants.

The results of this question are shown in Table 3. Overall, most faculty in both tiers perceived that their courses were somewhat different based on the experience that they had in FTSS. The strength of that difference seems to be amplified in Tier 1, where a greater proportion of respondents said that their course was very different as a result of participating in FTSS.

Table 2

"Tier 2 workshops helped me feel more prepared to deliver my course flexibly in the future."

Strongly	Somewhat	Agree nor	Somewhat	Strongly	Total
Agree	Agree	Disagree	Disagree	Disagree	Agree
77%	21%	2%	0%	0%	98%

Another question that sought to measure the impact of the FTSS experience prompted faculty to "Share an example of how a student in your course(s) has benefitted by offering your class in a more flexible format." These open responses were coded using NVivo and several prominent themes emerged. These included:

- 1. Allowing for flexible and remote participation
- 2. The use of more flexible assessments
- 3. Better course structure and direction

Table 3
How different do you think your course would be compared to what you delivered with FTSS?

	Tier 1 Institute		Tier 2 Workshop	
	N	%	N	%
Very different	25	24	4	9
Somewhat different	72	68	36	80
Not at all different	9	8	5	11

Allowing for Flexible and Remote Participation

Several faculty commented that the FTSS helped them to create a course that allowed for more flexible participation—meaning that students could participate in course activities either asynchronously or remotely. Asynchronous features allowed students who were working odd schedules to participate fully in the course. Comments from participants in this vein included: "I had several students who were working odd hours because of the current pandemic situation. More flexibility allowed them to complete the coursework on their own timetable while also having access to the complete lectures."

Another important strand in this theme was that remote participation allowed students to participate when they were either quarantining because of COVID-19 or taking care of someone as a result of the pandemic:

I have a student who takes care of her elderly grandparents and she was concerned about being in class the one day of our hybrid class. We discussed her situation and with access to the course weekly folders (contain [sic] activities/assignments, pre-recorded lectures, etc.) and Zoom, she has been relieved of her worry of bringing COVID home.

Using More Flexible Assessments

The second most common theme in these open responses was that faculty who participated in FTSS utilized more flexible forms of assessment, allowing for additional options for topics and format:

[H]ave also added more options for HOW our candidates will demonstrate their success. Building more flexibility into the types of evidence candidates can produce to exhibit proficiency is a HUGE shift in our course for this semester, as are the online tools we are using to take previously face-to-face interactions into a remote, yet still collaborative, setting.

Better Course Structure and Directions

A third prominent theme regarding direct benefit to students was the greater emphasis on Blackboard course structure and directions. The benefits included faculty's use of a more consistent and clear structure in their course, along with greater emphasis on having explicit and clear directions for assignments in the course:

I think some of what helped so far has been to be clear about structure, modelling my site on the formatting provided in the institute, and I've received [sic] very few questions about where to find materials in class compared to previous semesters.

These three themes and examples provide evidence to the many ways that faculty were able to utilize the lessons learned during the FTSS to benefit their students during the pandemic.

RQ2: What were faculty perceptions regarding their experience with FTSS?

While the previous research question was aimed at understanding the extent to which the FTSS met its intended purpose, the second research question seeks to understand the experience of faculty that participated in the program.

Participants in both Tiers 1 and 2 were asked about their experience of participating in the FTSS Initiative. Their responses indicated that, overall,

faculty found both the institute and the workshops to be helpful in terms of the activities they engaged in and the resources they had access to. The overall ratings were higher for the institute than the workshops. The difference between the institute and workshops were most strongly seen when it came to the presence of the facilitators—with the faculty perceiving that facilitators were more present in the institute and less so in the workshops.

Open-Coded Benefits

The Tier 1 and 2 evaluations also included open-response fields that allowed participants to reflect on the greatest benefit and the greatest challenge of their FTSS experience. Using NVivo, themes were developed by openly coding Tier 1 responses for both benefits and challenges. These same set of codes for each question were then applied for the Tier 2 open responses. Codes were combined and refined using an iterative process. Table 4 highlights the most commonly identified themes for the question regarding the strengths of Tier 1 and Tier 2. Some of the themes were more prominent in one tier versus the other. Table 5 further highlights some of the most prominent themes identified, with a brief description and examples excerpt statement from respondents about that theme.

Table 4
Frequency of Identified Themes in Open-Response Question
Regarding Strenghts of Tier 1 and Tier 2

	Tier 1	Institute	Tier 2	2 Workshops	_ _
Themes	N	%	N	%	Total
Resources Shared	27	22.9%	41	44.6%	68
Community	13	11.0%	13	14.1%	26
Explore Technology	14	11.9%	10	10.9%	
Modelling	17	14.4%	1	1.1%	24
Facilitators	12	10.2%	2	2.2%	14
Was able to create things for my					
course	3	2.5%	9	9.8%	12

Structure of Insti- tute	9	7.6%	2	2.2%	11
Space and Accountability	5	4.2%	2	2.2%	7
Opportunity for Reflection	1	0.8%	5	5.4%	6
Gaining Empathy for Students	4	3.4%	1	1.1%	5
Examples	2	1.7%	3	3.3%	5
FLIP Document	4	3.4%	0	0.0%	4
Practice Opportunities	2	1.7%	2	2.2%	4
Learning Outcomes	3	2.5%	0	0.0%	3
Activities	2	1.7%	0	0.0%	2
Assignments	0	0.0%	1	1.1%	1
Total	118	100.0%	92	100.0%	210

Open-Coded Th	Table 5 Open-Coded Themes Regarding Benefits with Examples from Each Tier			
Theme Name	Theme Description	Tier 1 Example	Tier 2 Example	
Resources Shared	The sharing of readings, videos, strategies, and models for creating flexibility in courses.	"Exposing instructors to best practices of creating a comprehensible and flexible course, making instructors think about the best ways to implement those practices in their	"The videos provided some things to think about in terms of implementing UDL [Universal Design for Learning] principles into a variety of courses."	

		specific courses."	
Community	Connections created with other faculty in their session. These connections enabled them to share ideas and feedback for creating a flexible course.	"It was extremely helpful to interact with faculty in other departments, get feedback on activities, and brainstorm solutions to concerns that we are all facing as we move our classes online."	"I really benefited from seeing other professor's feedback. It sparked some ideas for me and how I might change my practice, as well as affirming some of the methods I already consciously use in feedback."
Explore Technology	Participants were given opportunities to explore new learning technologies to help with creating their course in a more flexible format.	"It was very beneficial to be exposed to a variety of online tools and having the opportunity to try them out"	"Trying out new ideas such as Flipgrid and Wik- i's."
Modelling	The perception that the institute or workshop itself modelled best practices related to flexible course design.	"The modeling of remote teaching strategies and technologies during the FTSS assignments was the strongest element. It allowed us to experience these elements	Not a prevalent theme

		from the per- spective of a stu- dent, and thus evaluate their effectiveness."	
Facilitators	Engagement and feedback that the institute and workshop facilitators provided during the learning experience.	"The instructors were excellent. They moderated the class effectively, interacted with students well and modeled the concepts of the class. We learned from the instructional materials, but also from observing the instructors."	Not a prevalent theme

Open-Coded Challenges

The open-response fields regarding encountered challenges in the evaluation surveys for each of the tiers was then coded using the same process that is described above. The most common themes from this analysis are listed in Table 6 below. Table 7 further explores some of the most prominent themes that were identified, with a brief description and some excerpts from respondents that illustrate the theme.

Table 6
Frequency of Identified Themes in Coded Responses Regarding
Challenges of Tier 1 and Tier 2

	Tier 1 Institute		Tier 2 Workshops		
Themes	N	%	N	%	Total
None	23	31.5%	18	27.7%	41
Readings	5	6.8%	7	10.8%	12
Repetitive Activities	1	1.4%	9	13.8%	10
FLIP	9	12.3%	0	0.0%	9
Learning Outcomes	8	11.0%	0	0.0%	8
Issues with Feedback	2	2.7%	5	7.7%	7
Challenges with Technology	2	2.7%	4	6.2%	6
Inclusion	5	6.8%	1	1.5%	6
Mismatch between goals and existing abilities	5	6.8%	1	1.5%	6
Clarity of Instructions	0	0.0%	4	6.2%	4
More Examples	0	0.0%	4	6.2%	4
Other*	13	17.8%	12	18.5%	25
Total	73	100.0%	65	100.0%	138

^{*}Example themes include: Too much busy work, content issues, wanted more interaction, didn't find the discussions helpful.

	Table 7 Open-Coded Challenges and Examples			
Theme	Theme Description	Tier 1 Example	Tier 2 Example	
No Chal- lenges	Respondents could not identify a chal- lenge that was en- countered during the sessions.	"I think all activities of the institute had some value as each activity has taught me something new or allowed me to practice using new technologies."	"I found every- thing to be help- ful."	
Readings	Challenges related to the readings. This theme was sometimes related to the topic of the reading while other times it was about the quality of the reading.	"Many of the readings felt too general to be helpful. I already understood the main idea/issue and was looking for strategies and answers. Unfortunately, few readings offered these specifics."	"I was unable to get some of the readings, some were a bit redun- dant."	
Repeti- tive Activities	Challenges related to certain activities that were repeated from session to session. The most prominent example was the reuse of Flipgrid introductions in each workshop.	N/A	"I would have pre- ferred a different way of interacting with participants since I already was introduced to Flipgrid (which I do like) in an ear- lier workshop."	

FLIP Docu- ment	Challenges related to the use of the Flexible Learning and Instruction Plan (FLIP). This them mostly centered on respondents struggling with implementing it in their course.	"I did not understand the requirements for the FLIP—I still don't really understand it. The document was difficult to work with and it was confusing trying to tie CLOs to assignments."	N/A
Learning Out- comes	Challenges related to time spent work- ing on Module and Course Learning Outcomes.	"CLOs and MLOs drive me nuts. I understand and value their purpose. I recognize that they are to help you focus each component of instruction so that you don't incorporate "gimmicks" into your class but I did not find the time I spent on creating CLOs and MLOs as useful as some of the other topics."	N/A

Value of Topics

As a last measure of participant perceptions of the value of FTSS, we asked faculty members that participated in the Tier 1 to rank the topics that were covered during the institute in terms of their value in helping them to flexibly deliver their course during the fall semester. Table 8, shows the mean rankings of each of the topics. According to participants, the most beneficial topics were 1) Instructor Presence, 2) Transparent Instructions/Assignments, and 3) Alternative Assessments. UDL, which is one of the key flexible teaching strategies that faculty were supposed to imbibe from the FTSS experience, was ranked sixth from the top, indicating that other topics were prioritized over it. Faculty found the least amount of value out of 1) Formative

Assessment, 2) Inclusive and Equitable Teaching, and 3) Creating Learning Objectives and Outcomes.

Table 8 Mean Ranking of Topics in Tier 1 Institute				
Statement	N	M (SD)		
Instructor Presence	97	4.11 (2.24)		
Transparent Instructions/Assignments	97	4.32 (2.44)		
Alternative Assessments	97	4.70 (2.71)		
Communicating with Students	97	5.42 (2.83)		
Active Learning	97	5.53 (3.01)		
Universal Design for Learning	97	5.67 (2.85)		
Providing Feedback	97	5.82 (2.39)		
Creating Learning Objectives/Outcomes	97	5.88 (3.40)		
Inclusive and Equitable Teaching	97	6.48 (2.93)		
Formative Assessment	97	7.06 (2.35)		

Discussion

As mentioned in earlier sections of this article, the authors' review of literature had indicated that, prior to the COVID-19 pandemic, faculty in most higher education institutions were not prepared to teach flexibly. The goal of this evaluation study was to know: 1) whether the FTSS Initiative was able to meet its program objectives of preparing faculty to teach flexibly; and 2) what faculty thought about their experience of participating in this Initiative.

The data gathered from participants indicated that on the whole, faculty found the FTSS to be a productive PD experience that prepared them to teach with flexibility during the pandemic. Tier 1 participants indicated that the

institute helped them develop a variety of engaging learning activities and design alternative assessments, while Tier 2 participants reported that the workshops prepared them to teach flexibly in future.

In the follow-up survey administered in fall 2020, most participants in both tiers reported that their courses were somewhat different based on the experience that they had in FTSS, though the strength of that difference seems to be amplified in Tier 1. This response was not surprising, considering that Tier 1 was more intensive, interactive, and covered a breadth of topics across three weeks, while the Tier 2 workshops could be taken piecemeal, had less peer-peer, instructor-peer interaction, and were designed to cover specific topics.

Across both tiers, faculty felt that the flexible course format of the FTSS served as a model on how to purposefully build in course structure, directions, and assessments in their own courses. As further evidence to the impact of the FTSS upon their delivered courses, faculty participants were able to provide several concrete examples of how they were able to build flexibility into their courses and impact student success in meaningful ways in the midst of the uncertainty of the pandemic.

When asked about their experiences of participating in the FTSS, participants in both Tiers 1 and 2 responded positively to all aspects of both the institute and the workshops, though the overall ratings were higher for the institute than the workshops. The difference between the institute and workshops were most strongly seen regarding the presence of the facilitators—this rating was the highest of the aspects of the institute, but the lowest of the aspects of the workshops. Again, this response is likely a byproduct of the design of each of the tiers. Tier 1 was intended to be a more intensive experience, with heavy involvement from the facilitators, while Tier 2 was more hands-off. The instructor presence and level of feedback received in Tier 1 was a critical determinant of participant satisfaction.

As seen in Table 4, Tier 1 (22.9%) and Tier 2 (44.6%), open-ended responses indicated that faculty benefited most from the resources provided by the institute and the workshops. Resources included readings, videos, strategies, and models for creating flexibility in courses. This response seems to imply that faculty, prior to attending FTSS, were not adequately equipped with resources/ knowledge of creating flexible courses. Additional identified benefits included the community of learners and opportunities to explore technologies within both tiers of the institute. As additional strengths, 14 percent of Tier 1 participants cited that the institute was a good model for a flexible learning experience, and 10 percent noted that they appreciated the

work of the facilitators. Again, both elements which were likely more keenly seen in the intensive institute format.

When asked about the challenges of the FTSS Initiative (Table 6), it is positive to note that 31% of faculty in Tier 1 and 27% of faculty in Tier 2 noted that there were none—again a good reflection that the experience was good for many of the participants. In looking at the other challenges, the study shows each of the tiers diverge a bit. Completion of the FLIP document (12.3%) and time spent working on module and course learning outcomes (11%) were challenges for Tier 1 participants but not for Tier 2 participants. While in Tier 2, faculty had more challenges with repetitive activities (13.8%) and readings (10.8%). One such repetitive activity was the use of Flipgrid discussions to open each workshop. While participants appreciated the use of a new tool, by the second or third workshop, they felt its use was a bit repetitive.

Finally, when asked to rank (see Table 8) the topics that were covered during the institute in terms of their value in helping instructors to flexibly deliver their course during the fall semester, participants of Tier 1 indicated the most beneficial topics to be: 1) instructor presence, 2) transparent instructions/assignments, and 3) alternative assessments. Faculty found the least amount of value out of: 1) formative assessment, 2) inclusive and equitable teaching, and 3) creating learning objectives and outcomes. Identification of these topics of high and low interest/value are helpful indicators of what programming may be useful to support faculty to teach flexibly in future.

Implications

The results of this evaluation study have implications that may be useful for professionals and units engaged in the planning and design of faculty development programs intended to help faculty create more flexible learning opportunities. What did the FTSS Initiative teach us that can be used to prepare faculty to teach flexibly going forward? We recognize that as institutions are planning faculty development programs, decisions are made with the hopes of maximizing program outcomes within the given constraints of their institutional context. We recommend that institutions ask themselves the following questions when making these decisions about their programs:

 What resources are available (including funding and faculty/staff time) to support the initiative?

- Where are faculty currently at in being prepared to teach flexibility and what level of support do they need?
- How will the design of the PD initiative serve as a model of flexible course design/teaching for faculty?

We will now discuss how the findings of this evaluation can help you answer these questions for your own flexible teaching initiative.

Understanding Available Resources for High-Effort, High-Touch Programming

The Tier 1 Institute was an intensive, high-effort, three-week long course that was designed to facilitate a high level of engagement. It was high-touch in that participants interacted asynchronously with facilitators and peers on a daily basis. There were optional, weekly, online, synchronous meeting hours. Participants also completed the FLIP document that acted as a blue-print for flexible course design. Faculty reported making large gains from the institute experience.

The week-long Tier 2 workshops were less intensive, required less time and effort, and had less interaction with peers and facilitators. They could be taken piecemeal and did not require completion of the FLIP document if faculty did not want to earn a stipend. When compared to Tier 1, faculty in Tier 2 reported making lesser gains from the latter experience in terms of engagement with facilitators and peers and in terms of the workshop design serving as a model to implement flexible teaching in their courses. The high-effort, high-touch learning experience as provided by Tier 1 was perceived to be more beneficial to faculty learning as compared to the low-effort, low-touch experience offered by Tier 2.

It should be noted that both of these experiences required significant resources from the institution. According to internal data, a total of 44 staff and faculty facilitated sessions across Tiers 1-3. Additional expended resources included over \$400,000 in stipends to support both facilitators and participants for their participation time in the initiative. Most of this funding went towards supporting the high-effort, more time-intensive experience that was found in Tier 1. Will faculty continue to be motivated to participate in such high-effort PD if/when adequate financial incentives may not be available in future?

These observations are useful lessons for faculty developers designing future learning experiences for faculty, as it means that a careful analysis and understanding of available resources in terms of money and faculty developer time needs to be made before implementing high-touch, high-effort programs. Is high-touch, high-effort a good model to follow post-pandemic, when faculty and faculty developers may be prone to time constraints and competing commitments?

Designing PD to Meet Faculty Where They Are

Faculty perceptions from the FTSS Initiative seem to suggest that, if faculty are new to flexible teaching, there may be a need to build in more instructor presence and design PD akin to Tier 1 that is of high-effort and high-touch but is also of high value. If faculty are more experienced in flexible teaching, if their need is more topical, and if they have less time to devote to PD, one-off workshops may be more appropriate.

FTSS Course Design as a Model of Best Practice

The modeling of remote teaching strategies and technologies at the institute allowed faculty to experience these elements from the perspective of a student and, thus, evaluate their effectiveness. No such theme (see Table 5) emerged from faculty perceptions of the Tier 2 workshops. Hence, it appears that the difference in the design of the institute versus the Tier 2 workshops had an impact on whether the design served as a model of best practice that faculty could learn from and implement in the courses they taught. The authors recommend that readers refer to Bose et al. (2020) for a more elaborate description of the design of both Tier 1 and Tier 2.

Some Challenges and Lessons Going Forward

Results from the initial evaluation of the FTSS Initiative revealed some challenges where it was reported that "the FLIP document was difficult to use and faculty did not quite understand how to apply UDL and inclusive teaching in their courses, even after completing the institute" (Bose et al., 2020, p. 115). Moreover, faculty "attending the Tier 2 workshops often did not receive extensive individual feedback and felt that they needed access to additional case studies and readings" (p.115).

The institute was a high-effort, high-touch PD offering and was generally viewed to be of high value by faculty. However, it was not entirely successful in reaching all its desired outcomes. No follow-up data was collected after

fall 2020 to identify why the FLIP document was difficult to use for some faculty. Several factors could have led to this difficulty, like (but not limited to) the general design of the document, lack of clarity about completion expectations, and technology-related problems of filling up and submitting this document virtually.

One of the main goals of the FTSS Initiative was to prepare faculty to teach flexibly using the principles of UDL. Faculty perceptions of not quite understanding how to use UDL in teaching seems to indicate that the Initiative did not meet this goal for all faculty. No follow-up data was collected after fall 2020 to identify why that might be the case. If the FTSS Initiative were to become a more long-term PD program in future, data on faculty perceptions of UDL programming are essential so that its design can be improved.

The Tier 2 workshops were built as flexible, piecemeal PD opportunities for faculty who had less time and energy to participate in the more intensive and time-consuming institute. Nevertheless, as expressed by faculty, the design of the workshops could have been better if they included more individual feedback from facilitators and access to resources. This response seems to suggest that even though faculty may have less time to participate in PD at any time, they may benefit from more intensive facilitation and access to resources that can be used at a later timeframe.

Conclusion

As the review of literature for this study indicated, prior to the COVID-19 pandemic, there was little formal PD programming dedicated to prepare faculty to teach flexibly. The FTSS Initiative was designed and delivered in response to faculty and student needs for flexible teaching and learning during the pandemic. The three-tiered structure of the FTSS Initiative was intended to provide faculty the timely opportunity to participate in PD that was flexible in terms of required time commitment and levels of engagement with content. On the whole, faculty expressed satisfaction with their learning experience and felt prepared to teach flexibly.

Through the evaluation, we were also able to provide some quantitative and qualitative evidence that FTSS had transformational impacts upon courses delivered in the fall. Participant feedback from both tiers of the FTSS indicated that instructor presence in the form of regular formative feedback, high engagement with content, and interaction with peers and facilitators were determinants of participant satisfaction. This feedback seems to suggest that faculty prefer high-effort, high-touch PD experiences compared to low-touch, low-effort ones. Going forward, the lessons learned from the Initiative can be used to build more long-term PD programs that can prepare faculty to teach flexibly beyond the pandemic.

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Appendix A

Questions for Mid-Fall 2020 Follow-up Evaluation

Overall Experience

- 1. What tier of the Flexible Teaching for Student Success Initiative were you enrolled in?
 - a. Tier 1
 - b. Tier 2
- 2. How would you rate your overall experience participating in the FTSS?
 - a. Positive to negative
- 3. What did you see as the benefits of the format that you chose for FTSS?
 - a. Open Text
- 4. What did you see as the challenges for the format that you chose for FTSS?
 - a. Open Text
- 5. What formats did they end up teaching their class(es) in for the fall semester? (Check all that Apply)
 - a. Face-to-Face
 - b. Hybrid
 - c. Online
 - d. Remote

Cohort

- 6. (if institute) Did you participate in the institute as part of a cohort with other faculty from your department, course, or college?
 - a. Yes or No
- 7. (if cohort) How helpful was being in a cohort to your overall success in FTSS?
 - a. Not at all to very helpful
- 8. (if cohort) What did you see as the benefits of completing the institute within a cohort?
 - a. Open text

FTSS Impact

- 9. The main deliverable of the FTSS was the FLIP. How useful was the FLIP in preparing you to deliver your online course?
 - a. Not at all to very helpful
- 10. Imagine what your course would be like had you not participated in FTSS. How different do you think your course would be compared to what you delivered with FTSS?
 - a. Not at all different to very different
- 11. (If Tier 1) What topics from the FTSS program were the most beneficial to you as you delivered your course this semester?
 - a. Creating Learning Objectives/Outcomes
 - b. Universal Design for Learning
 - c. Instructor Presence
 - d. Alternative Assessments
 - e. Transparent Instructions/Assignments
 - f. Providing Feedback
 - g. Formative Assessment
 - h. Inclusive and Equitable Teaching
 - i. Active Learning
 - j. Communicating with Students
- 12. (If Tier 1) What topics from the FTSS program were the least beneficial to you as you delivered your course this semester?
 - a. Syllabus Creation
 - b. Creating Learning Objectives/Outcomes
 - c. Universal Design for Learning
 - d. Instructor Presence
 - e. Alternative Assessments
 - f. Transparent Instructions/Assignments
 - g. Providing Feedback
 - h. Formative Assessment
 - i. Inclusive and Equitable Teaching
 - j. Active Learning
 - k. Communicating with Students
- 13. (If Tier 2) What topics from the FTSS program were the most beneficial to you as you delivered your course this semester?
 - a. Establishing Instructor Presence
 - b. Active Learning in Asynchronous Settings
 - c. Creating Courses the Meet the Needs of All Students

- d. Building Inclusive Learning Communities
- e. Strategies for Providing Effective Feedback
- f. Integrating Flexible Assessments
- 14. (If Tier 2) What topics from the FTSS program were the least beneficial to you as you delivered your course this semester?
 - a. Establishing Instructor Presence
 - b. Active Learning in Asynchronous Settings
 - c. Creating Courses the Meet the Needs of All Students
 - d. Building Inclusive Learning Communities
 - e. Strategies for Providing Effective Feedback
 - f. Integrating Flexible Assessments

Faculty Development

- 15. Which of the following workshop topics would best help address challenges that you face in the online classroom? (Choose all that apply)
 - a. Syllabus design
 - b. Incorporating active learning strategies
 - c. Methods for meeting the needs of diverse students
 - d. Integrating effective writing assignments
 - e. Designing service-learning activities
 - f. Designing student learning outcomes
 - g. Using technology to enhance learning
 - h. Effective course design
 - i. Designing effective group work
 - j. Creating and facilitating effective discussions
 - k. Incorporating field-based/experiential learning
 - 1. Designing effective assessments
 - m. Academic honesty and plagiarism
 - n. Incorporating Open Education Resources
 - o. Leveraging learning analytics
 - p. Other (open text)
- 16. Please rank which formats for professional development would be most beneficial.
 - a. Asynchronous online workshops
 - b. Synchronous online workshops/webinars
 - c. Face-to-Face workshops
 - d. Online Resources (blog posts, articles, forums)
 - e. Online Faculty Learning Communities
 - f. Book circles

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- g. One-on-one consultations
- 17. If you are interested in conducting research on the impact of your changes reach out to the Center for Teaching and Learning or the eCampus Center