Designing DSP: UX and the Experience of Online Students

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ABSTRACT

Directed self-placement (DSP) is considered a student—centered and socially just tool for writing placement but rarely incorporates student—centered design methodologies. Though students are a vital stakeholder group in assessment and placement, they rarely take part in designing such systems. To begin addressing these contradictions, we implement user experience (UX) design methodologies to situate students-as-users of DSP systems, meaning that students are not simply consumers of DSP but are instead the locus of the design process, thus driving innovation and iteration. This article articulates a case study of implementing UX design methodologies to iterate on a writing program's current DSP system, focused particularly on better meeting online and transfer students' unique needs. By positioning students as co-designers and users of DSP, this article contributes to the expanding research on writing placement and the need for richly localized assessment designs.

The structuring of student pathways through placement and advising has lasting impacts on students' experiences in higher education, especially regarding their persistence and success at their institutions. Assessments have a powerful directionality component—the ability to usher students through particular academic pathways—and directed self-placement (DSP) is a perfect example. The stakes are high: initial placement outcomes can impact whether students go on to enroll in coursework (Adams, Gearhart, Miller, & Roberts, 2009; Messer, Gallagher, & Hart, 2022), whether they succeed in their classes (Inoue, 2009a; Klausman & Lynch, 2022), and whether they persist to degree (Valentine, Konstantopoulosm, & Goldrick-Rab, 2017). This research indicates that while placement is important for student success in first-year composition courses, it is also vital for students' overall progress to degree. Yet most of the research on DSP has focused on tools and outcomes rather than students' decision-making processes (Kenner, 2016; Saenkhum, 2016); such foci privilege students' experiences in the aggregate rather than the experiential or personal, often leaving administrators with more questions than answers. To mitigate some of these concerns, we iterated on one of our institution's DSP systems by seeking student

feedback about their experiences—not just as a student in a course but also as a *user* of DSP.

DSP practices are, like all other writing assessment systems, sites of power, ideology, habituation. Placement practices are also rhetorical and function as part of a larger assessment ecology. Through the placement process, students engage with multiple rhetorical actors, often co-constructing their pathway through DSP alongside many others (family members or guardians, friends, academic advisors, placement advisors, orientation leaders, fellow students, previous educators, and more). Saenkhum (2016) recognizes how important these other participants are in influencing students' placement decisions, stating that, "students were able to exercise agency in their placement decision processes because of sufficient and necessary information they received from their academic advisors and from other students' past experiences" (p. 51). Wang (2020) argues that these complexities are at odds with the traditional premise of DSP and that the solution is to include negotiation as part of the process: "The 'twin fundamentals' of DSP, which are guidance and choice as Toth (2019) calls them, remain intact. Negotiation, the third fundamental, is what distinguishes the rhetorical model of DSP" (p. 53-54). This model aims to give students a chance to further develop their "emergent rhetorical agency" (p. 53). When viewed through a lens of social justice and technical and professional communication (TPC), we believe we can improve this negotiation aspect of DSP and better distribute the power of placement by including students in the process from the beginning of the design process. To shift the timing and distribution of power, we turn to user experience (UX) design models, in part because DSP constitutes a highly technical communicative endeavor and in part because TPC has a growing body of scholarship focused on equitable and participatory design systems.

DSP as Social Justice

While early DSP scholarship primarily investigated the purposes and content of DSP systems (Crusan, 2006, 2011; Royer & Gilles, 1998, 2003, 2012; Toth & Aull, 2014), recent scholarship is more interested in the social and academic consequences of DSP's implementation, particularly regarding equity for diverse populations and two-year colleges (Nastal, Poe, & Toth, 2022). For instance, Inoue's (2009b) racial validity framework focuses on disaggregating local assessment data to reveal potential racial formations and their comparative outcomes. Methodologies of disparate impact analysis take up this work with a particular focus on legally protected populations (see Poe, Elliot, Cogan, & Nurudeen, 2014). Toth

(2018) usefully summarizes these and other attempts as "validation for social justice" (p. 145), suggesting that more research is needed to continue substantiating DSP's local impacts on student equity. When analyzing DSP's potential to serve two-year college populations, Toth (2018) writes, "DSP's ability to achieve that promise [of social justice] is contingent on processes designed with a critical awareness of ideologies that reproduce social inequalities. . . . This labor must be undertaken carefully, critically, and continuously" (p. 151). When situated within the "Fourth Wave" of writing assessment scholarship (Behm & Miller, 2012), student self-placement must be understood as a social justice endeavor, especially because placement has serious implications for student enrollment, retention, and success (Klausman & Lynch, 2022; Toth, 2019; VanOra, 2019). Despite being the population most directly impacted, undergraduate students are rarely included in the design process of writing placements.

DSP as Technical Communication

DSP must also be understood as a complex set of technical communication acts. Technical communication can be summarized in four concepts: technical communication (1) "exists to accomplish something"; (2) "is a form of social action"; (3) "seeks to make tacit knowledge explicit"; and (4) relates to technology, with a broad conception of "technology" that encompasses "knowledge, actions, and tools" (Durack, 1997, p. 257-258). By these and other definitions, DSP is technical communication: it exists to help students choose a college composition course/sequence; this requirement of a decision, the decision-making process, and its implications are all certainly social action; it seeks to make first-year writing course/sequence knowledge explicit; and it is often mediated through technology in several ways. Additionally, DSP can be further understood as intercultural technical communication, given that it must function for increasingly diverse student populations (across various educational, sociopolitical, transnational, legal, and linguistic contexts). Because DSP systems seek to make our field's specialized knowledge usable to incoming students and other stakeholders, we argue that TPC methodologies are relevant to their design, implementation, and iteration—meaning that they can (and should) be improved by UX research.

Agboka's (2013, 2014) participatory localization framework suggests that developers (in this case, administrators and staff) work alongside the users (incoming students, including transfer and non-traditional students) when designing their tool/technology (writing placement systems, particularly DSP) rather than having the users passively consume the final product.

Challenging such practices as they relate to developing tools across international contexts, Agboka (2013) argues that "technical communication may participate in the colonial exploitation and objectification of users in cultural sites, especially those in disempowered, unenfranchised cultural sites, if localization practices are not reconceptualized to place users at par with the developer in the design process" (p. 31). As currently conceived, placement is not facilitated by student-centered technologies; instead, placement assessment systems are technical products designed with the intent of imposition. That is, administrators and staff design systems and impose them on students rather than inviting students to design alongside us, thus removing a crucial opportunity to lower power imbalances and bolster student agency. Below, we articulate a tangible first step toward positioning students as equals in the DSP design process.

Purposes of the Research

To investigate students' experiences with our online campus DSP tool, we designed a UX project that would specifically invite student feedback on our iteration process.\(^1\) DSP systems (in this article, we sometimes use the phrase "DSP system[s]\(^2\) because DSP often involves far more than a single tool) benefit from the methodologies of participatory localization and UX design for not only iterating tools but also prioritizing students' experiences and needs. While the overall goals of DSP have aligned well with writing pedagogy for decades, and while DSP is recognized as a potentially equitable means of student placement, little research has been done on placement of online or transfer students (Gere et al., 2017; Toth, 2018; Toth, 2019), and no research has yet framed DSP as technical communication.

Part of equity and effectiveness in TPC is the inclusion and understanding of all user groups. Online and transfer students are often overlooked in the placement and advising systems at major universities where first-year students represent the bulk of enrollments, and transfer students tend to be a more diverse pool of students than the typical incoming cohorts of "true" freshmen (Chamely-Wiik et al., 2021; Rosenberg, 2016). Most transfer students have part- or full-time jobs (though that is becoming more common for all college students, not just transfer or returning students); transfer students are more likely to be returning students; transfer students are often caretakers or providers of income for their families (Chamely-Wiik et al., 2021). According to research in retention studies and elsewhere, students who transfer from one institution to another are more likely to get stuck, time out, or lose their place in their academic journeys (Blekic, Carpenter, & Cao, 2020; Boston, Ice, & Burgess, 2012; Mamiseishvili & Deggs, 2013).

Of the students who completed our DSP tool in 2021, 76.5% were transfer or re-admit students, and our DSP questionnaire had very few questions addressing the unique needs of that part of our community. On the whole, online and transfer students represent a cohort with needs that differ from traditional cohorts of first-year freshmen, and through our UX case study, we were able to address some of those needs at our local institution.

In this article, we demonstrate how our UX project improved an existing DSP system by unearthing student concerns, in concrete ways, and involving students in the questionnaire revision process. The goal of this article is two-fold:

- To supplement ongoing placement research that demonstrates the need for richly localized DSP systems, especially for undersupported populations (such as online, transfer, and multilingual students).
- 2. To highlight the need for and importance of incorporating TPC methodologies (such as UX design and/or participatory localization) in service of further localizing DSP systems.

By sharing our work on this case study, we hope to provide strategies for programs interested in developing a DSP system, as well as ideas for iterative improvement for already established systems. Without student input, we are only ever seeing a small part of the puzzle.

Institutional Context

Positionalities

This research was conducted at the University of Arizona, a large, public, land-grant, Research 1 university in the southwestern United States. This land was seized from Indigenous Peoples and allocated to land-grant universities in accordance with the Morrill Act, which was signed into law by President Lincoln in 1862 (Ahtone, 2020; Lee & Ahtone, 2020; Lee et al., 2020). As a land-grant university, the university benefits from the possession of the traditional lands of the Tohono O'odham Nation, whose predecessors include the Hohokam and the O'odham, as well as the Pascua Yaqui Peoples. Over the centuries, these communities have been continuously impacted by various land cessions. It is vital that we as scholars and teachers understand the histories of our institutions and the legacies of harm that sustain them (Vowel, 2016).

The authors are both White cisgender women born in the United States, with English as their first language, and they exist in proximity to a great deal of sociopolitical privilege. Kathleen is neurodivergent, queer, and

chronically ill, and was, at the time of research and writing, a graduate candidate at the University of Arizona. Her positionality as a neurodivergent graduate administrator influenced the scholarship used to argue for DSP as a site of social justice, with her interests particularly focusing on accessibility and disability justice in writing assessment. Catrina has a chronic illness that decides when it wants to impact her cognitive functioning, is a military spouse, and was a distance student herself. At the time of this study, she was also the Interim Director of Online Writing. These positionalities influenced her decision to pursue teaching and research in online spaces and so influenced the portion of the data from the larger study that this piece focuses on.

Start of DSP in our Writing Program

Like many others, our university was impacted by changes to College Board's SAT scoring procedures in 2016. While the writing program had been considering DSP and other multiple measures placement methods well before then, the shift away from dependence on standardized exam scores for placement allowed us to capitalize on a kairotic moment and try something new. We were already in the process of shifting placement systems for our international student populations, but after 2016, we committed to shifting to DSP for all incoming domestic students (both first-year and transfer). By 2018, we had built and launched our first DSP system, which was dubbed the Foundations Writing Evaluation (FWE).

Our DSP (FWE) System

Our DSP system, the FWE, now includes several features: (1) an intricate Qualtrics online survey tool; (2) year-round asynchronous email advising; (3) synchronous orientation session advising; and (4) a "Handy Guide to Foundations Writing" webpage. We currently have discrete versions of this Qualtrics tool for a few different student populations: international students, main campus students, global students (international online campus), and online campus students. The Qualtrics tool is the central feature of our DSP system, and it relies on an internal web service that reads secure student information (such as transcripts) and can, as students complete the FWE, filter relevant information regarding their course/sequence options. Additionally, students can report pending dual enrollment/transfer credits as well as relevant exam scores, select a course placement, and request additional one-on-one support from placement advisors. Most of the FWEs include a course recommendation, one or two small writing tasks, and a link to the "Handy Guide." The Qualtrics tool also implements

a self-assessment questionnaire that inquires into students' histories with various literacy tasks and classroom learning preferences. Though, in this article, we focus primarily on the questionnaire aspect of our tool, we provide these details to contextualize our local DSP system and to acknowledge the complexities of placement administration labor.

Creation of oFWE

In the fall semester of 2020, the online campus student success team administrators requested a FWE specific to our online student population. This tool was created, but it was also provisionally stripped of the main–campus questionnaire items because our online students did not have all the same course/sequence options available to them. As online course options expanded, however, it became clear that the online-campus FWE (oFWE) needed to be revised with questionnaire items specific to online–campus population needs.

Why Now?

In 2017, the upper administration of our online campus requested a pilot of a four-credit equivalent course in Foundations Writing. This request was based on the writing program's success with ENGL101A (a fourcredit course that offers students an hour of writing studio time). Since the request, the online model for the last four years has been to offer our traditional three-credit courses (101/102) with a one-credit co-curricular (197B) writing workshop. Aside from the student population and the goals of the extra credit hour, a significant difference between 101A and 101/102 with 197B is placement. Our main-campus students can self-place into 101A using the main-campus FWE. Our online campus students, however, were enrolled in 197B by the writing program based on one criterion: whether it was their first writing course at the institution. This one-credit course was free to these students, and they were manually enrolled by staff in our writing program. Part of the reason for both using this metric and for comping the credit hour is that online students pay per credit hour as opposed to per semester, meaning that our online students are often less willing to enroll in a four-credit course than a main-campus student. For the pilot, the online campus covered the cost of the extra credit hour for students.

The pilot for 197B was considered a success (as measured by the improvement in student grades over time since 2017). The online campus thus elected to end the pilot, and the writing program now offers an official four-credit course to replace the 197B co-curricular model we were using.

This means that students must now pay for that extra credit hour and have the opportunity to self-place into either the three- or four-credit course.

This exigence was an opportunity to build a DSP questionnaire in ways we didn't in 2018: with the student perspective. We created our UX project with the goals of not just utilizing student feedback to iterate on our DSP but also of engaging students in every phase of the study, of positioning them as active contributors rather than passive consumers of our DSP, and of centering their experiences in ways that incorporate goals of social justice (Agboka, 2013; Jones, 2016). To ensure our oFWE provides fair and valid guidance in assessing online students' needs, we conducted focus groups of students who completed the one-credit co-curricular. Using the focus group data, we crafted new oFWE questionnaire items, which were then further studied with usability testing. Finally, the larger UX study includes a follow-up survey at the end of the semester to determine whether students felt they were placed appropriately. Below, we provide more details about our methods, results, and implementations.

Methods

Models of UX design and research are driven by the goal of developing iterative, collaborative, and user-focused designs, and there is no commonly accepted rigid definition of UX design. Instead, UX design blends methodologies from various disciplines, such as human computer interaction, information architecture, computer science, and user interface design (see Gläser, Jaritz, & Sackl, 2013 for a visual representation), and it often incorporates principles of accessibility and usability. UX also emphasizes the importance of iterative design and user input before launching as well as a design process that is adaptive and ongoing (Chow & Sajonas, 2020). UX design thus views users (broadly construed) as the central unit of the ecology rather than as a group that has designs done to them (Agboka, 2013; Robinson, Lanius, & Weber, 2017). This shift in positionality is important for DSP because it allows students to be the locus of the design rather than institutional data. Though we must, of course, take into consideration things such as number of course sections, distribution of placements, grades, and retention, localized student needs ought to be the center of the DSP's design. To be clear, UX research is different from a simple usability test because of that shift to ongoing experiences and the importance of user input before, during, and after a design (Babich, 2020). Usability testing, which focuses on aspects like user interface and visual design, falls under the broader UX design umbrella. For our purposes in this phase of the study, we adapted UX principles to focus on human-centered participatory design, another aspect of the UX umbrella.

Though our program's larger UX study included all our FWE tools, in this article, we focus particularly on the oFWE, which serves our online campus students. As mentioned above, because there was a unique opportunity to garner student input before crafting questions, the case study on the oFWE consisted of three phases: (1) small focus groups with participants from the target user population, that is, students who were placed into the one-credit co-curricular the previous year; (2) usability tests where students evaluate the new questionnaire items; and (3) a validity survey to determine if students felt their placement was a good fit. During the focus group phase, students discussed their experiences with 197B and the placement system, and then they brainstormed questions for future students taking 197B. We then took the rich descriptions of student experiences to craft oFWE questionnaire items. In this piece, we will share the newly developed questionnaire items and select focus group data. The results of these focus groups were used to craft new questions for the oFWE, and they were also used to improve the curriculum as the co-curricular transitioned from a parallel course to an interwoven credit. The new oFWE was then part of a usability test, designed as a think-aloud protocol, to glimpse how students are processing the newly implemented oFWE questionnaire items.

For the focus groups, we solicited participation from students who were enrolled in 197B in the academic year 2020–2021. The goal was to conduct three focus groups of five students (one hour each), and students were offered \$20 Amazon gift cards for their participation. We conducted these focus groups in summer 2021, and we had five participants across two focus group sessions, which were conducted by Kathleen and used a specific set of seven questions as a guide (see the appendix). The interviewer facilitated conversations centering on students' experiences with the following topics: reactions to their placement in 197B, descriptions in their own words of 197B, the usefulness of 197B, advice to future students taking the course, and changes they would make. In each session, follow-up questions were asked for clarification.

After the focus group transcripts were validated against the recordings and de-identified, the responses were analyzed using in-vivo coding for a first round and values coding in a second round (Saldaña, 2016), with two coders attending norming sessions to ensure that they were applying codes in similar ways. The codes were then grouped into the following themes: (1) placement issues, (2) curriculum, (3) value, and (4) DSP questions.

RESULTS AND DISCUSSION

For the purposes of this article, we share selected data related to the themes of placement issues and DSP questions. While we cannot fully address the curricular concerns that arose during our case study, they were taken into consideration as the writing program shifted to the official four-credit course option. We had only five students participate in the focus groups, so we consider this research to be a case study specific to our context. Of those five students, four self-identified as transfer students during the focus groups. This focus group population is key to understanding some of the codes that showed up. The placement issues theme was divided into two areas: (1) placement issues related to the one-credit co-curricular course (ENGL197B) and (2) placement issues related to Foundations Writing in general. The placement issues around 197B (see table 1) were not surprising, as there was never a good enrollment process established during the co-curricular course's pilot.

Table 1 97B Placement Issues Sample Responses

Theme	Code	Samples
197B Placement Issues	Add-on/last-minute placement	"now they add this other class"
		"I didn't know I was enrolled in the course"
	Affective response to placement	"blindsided"
		"kinda shocked"
	Time concerns related to the last-minute placement	"I had to even put some of the time in to do them"
		"I had to be very careful with the timing, and now they add this other class"
	Age/experience felt like misplacement	"helpful towards first years who don't have much experience in English composition"
		"And I think probably because I'm older and I've been working for a long time"

This data confirms that the last-minute non-self-placement for 197B resulted in student stress regarding having the time to complete the course. Students were concerned about the added work of 197B, in addition to the confusion created by the placement process and criteria.

What was unexpected were the other placement concerns students had, which were largely associated with the students who self-identified as transfer students (see table 2). We know transfer students are more likely to drop out due to credit transfer and articulation issues (Blekic, Carpenter, & Cao, 2020; Boston, Ice, & Burgess, 2012). Providing space for this particular group to articulate their concerns provided us with concrete considerations for improving our placement processes for this group's unique needs. These affordances would not have been possible without centering student voices through the participatory methods described above.

Table 2 Placement Issues Not Related to Co-Curricular Placement

Theme	Code	Samples
Non-197B Placement Issues	Course not available	"placed in an honors class, but the honors class wasn't offered online"
	Being a senior	"I'm currently a junior- almost senior-level student in upper courses being told to go back and pretend to be a freshman; I'm a senior, and I've been submitting very, very intense writing assignments with no issue. So having to go back"
	Previous similar courses/work that didn't transfer	"my credits had transferred in a very strange way"
		"I took a CLEP test that existed back then (apparently doesn't exist anymore)"
		"writing is a huge part of my job"

The array of placement issues unrelated to enrollment in 197B was quite specific to transfer students. While these topics weren't why we set out to do this study (our initial interest was online students more broadly), they emphasize the ongoing need to ensure that our DSP questionnaires and supporting materials consider how our writing program serves this student population. The majority of our focus group participants were advanced in their academic (and professional) careers, and it's possible that at least one student, seen in row two of table 2, was a senior who elected to not take their first-year writing in their first year. This is not an uncommon phenomenon in online campuses where students aren't given auto-enrollments.

In our focus groups, students also articulated the value of 197B for future students and described the students who would likely most benefit from the course. In table 3, we share the codes for those themes that are relevant to oFWE questionnaire design. Focus group participants felt that students might benefit from and/or want to be enrolled in the official four-credit course for two main reasons: (1) additional support through regularly scheduled one-on-one conferences with the instructor, and (2) the sustained support provided for completing the writing assignments and projects in the "core" composition class.

From table 3, we crafted three items for the oFWE questionnaire. We also selected ten of the current nineteen items of the main-campus FWE self-assessment, specifically focusing on the items related to ENGL101A, our main-campus four-credit studio course. The three questions generated from the focus group data are listed as statements with Likert-style responses. The three oFWE questionnaire items are:

- 1. I feel comfortable reaching out to my instructors for help.
- 2. I am able to successfully complete writing assignments without assistance from my instructor.
- 3. I feel confident in my writing.

Each item includes the following options that are given the "score" listed next to them:

- Not really (1)
- Kind of (2)
- Mostly (3)
- Absolutely (3)

Table 3
Value of the One-Credit Co-Curricular Course

Theme	Code	Sample
197B Value	Relationship with and access to instructor	"value for 197B would definitely be the access to the instructor" "I just felt more comfortable asking him questions in the future because we built a bit of a rapport" [without 197B] "It may have been more difficult for me to approach a professor, ask questions, get to the heart of an issue that I might be having"
	Assignment/ course design	"a resource for those who may not or who would like extra" "the assignments that directly were aimed at or applicable to assignments in the class that you were already doing" "helpful in that some of the curriculum corresponded to the curriculum we were doing in the course"
	For "others"	"would've been beneficial for those students that this is their first course online or maybe they're returning to school after a long time" "[struggle] with writing in general"
Questions for DSP	Asking for help	"ask them if they're the type of students that don't reach out for help, maybe they should be put into 197B because it'll be a more convenient way for them to get help"
	Writing confidence/ experience	"writing is a huge part of my job, so like working at a hospital with doctors, you can't just send an email that looks like a text message. It has to be pretty formal, all the time. So, I mean, finding out what they do as part of their job, for writing."

The DSP self-assessment questionnaire begins with eight questions that focus on student comfort levels with their writing experience, then moves into five questions focused on how much support students feel they need in specific elements of learning how to write in an online class. These items provide space for students to think more holistically about their learning process, rather than limiting their self-assessment to only writing and reading skills and tasks. Involving student stakeholders and honoring their wisdom and experiences should always inform the "guidance" aspect of DSP. This study has helped us become more pointed and more selective in our questions for specific user populations, and we hope to learn more as we continue including students in the iteration of our DSP system.

Usability Study Results

The second stage of our three-part UX case study consisted of a usability test of the new questionnaire items developed for the oFWE (as opposed to the tool itself, which had already undergone separate usability testing by a group of student users, and then substantive revisions, in early 2020). We used a think—aloud protocol, asking students to read and respond aloud to the oFWE questionnaire items and then consider whether they felt their placement was accurate based on their assigned scenario. The three scenarios crafted for this usability test included having a choice between the three- and four-credit course for both semesters, as well as a choice between the transfer portfolio and the transfer-student course.

Our UX projects, including this case study, were continually constrained by the ongoing pandemic and the unique time constraints of online students, resulting in small sample sizes. Despite offering \$50 gift cards for participating, only three students agreed to participate. These students were different from those in the focus groups. Of the three usability test responses, one was unusable because the student muted the audio when they entered the Zoom room. The other two tests were coded for hesitancy and confidence in answering each question.

Student 3, who completed scenario three, was confident in answering twelve out of the thirteen questions. This student read the questions and potential responses out loud and then selected their responses immediately for those twelve questions. The final question came with some "it depends" hedging about being "open to suggestions" and resulted in the student selecting a response indicating they needed little to no assistance. These hesitations were interpreted as the student reflecting on their experiences and fitting those experiences into the question parameters as opposed to the question being difficult to answer.

Student 2, who completed scenario two, was confident in answering six of the thirteen questions. This student talked through their reasoning for how they were responding to every question where the answer was not "absolutely." That reasoning centered around their experiences, their comfort level, and their ideas of how contextual factors could impact their behavior. This hesitancy was also interpreted as reflecting on their experience to answer the question. However, this particular student used the phrase "it depends" in response to three questions that asked about how much guidance or assistance from "peers and instructor" was needed. For this student, where the assistance came from made a difference.

Both students also answered the usability follow-up questions and indicated the following: (1) the course recommendation provided by the oFWE

questionnaire results would be a good fit based on how they answered the questions; (2) the questionnaire items helped develop their understanding of what both the three- and four-credit options would offer them personally; and (3) the questions were "straightforward and easy to answer."

The students didn't hesitate to answer the three questions created from the focus group data. The results of this usability test were used to adjust the phrasing in the assistance questions from "and" to "and/or," thus providing space for students to consider assistance and guidance from either party because the four-credit hour course will provide extra assistance and guidance from both peers and their instructor. Otherwise, the results indicated that the 197B focus-group questions were useful in making course recommendations.

The third and final step of our UX case study is a single-question survey asking students if the class they're currently enrolled in is a good fit for them. This step has been on hold since 2022, waiting for the four-credit course to be officially added to the course catalog.

LIMITATIONS

In addition to the timing of the study during the pandemic and the low participation, we want to acknowledge that diving deeper into students' intersecting identities is not something we were able to consider. Catrina was the Interim Director of the Online Writing Program at the time, and Kathleen was the Assistant Director of Placement and Assessment, and we both were careful about protecting student identities, and not asking too much of our staff during a very stressful and overwhelming time. Future iterations should include this information.

Conclusion

DSP systems are created with students' best interests at heart, but as Inoue (2009b) and others have noted, assessment technologies have latent structures of power and ideology, many of which are harmful to students. Our preliminary case study research demonstrates the potential of UX for placement: UX provides structures of both participatory localization and student-focused methodologies. While our study includes a DSP system already designed and in use, one built by staff members and graduate students researching current best practices in placement, we believe undergraduate students ought to be involved with the DSP design process from the very beginning. They are the central user group of placement systems, and their academic careers (and their lives/livelihoods) are heavily impacted by these systems.

While this project is just the beginning of our three-stage UX study on our oFWE, the resulting data, as well as the unexpected inclusion of transfer student perspectives, suggests that UX methodologies are one way to ensure we're serving all our diverse student populations. Because placement is a hugely complex process for most American colleges and universities, rife with intricacies of dual enrollment, exam scores, transfer credits, national/state/local policies, and articulation agreements, we understand the importance of valuing administrator expertise. But we also know that students are at the core of our work, and the more we can work alongside them rather than for them, the more we can distribute power in meaningful ways.

Once DSP has been situated as both a site of social justice and technical communication, we can see how Agboka's (2013, 2014) concerns about disenfranchising the user (if users passively consume the final product) come to fruition—and how a DSP system can unintentionally function in direct opposition to its purpose. By shifting our understanding of DSP to include UX aspects of design and implementation, and therefore including students-as-users in the (re)design process, writing program administrators can ensure more localized, effective, and equitable DSP design and results. Small, contextualized changes can sometimes be the driving force of an iterative and locally responsive DSP system.

Appendix

Focus Group Questions

- 1. What was your first reaction to being placed in 197B? Why?
- 2. If you could describe the 197B course in 1–2 sentences (elevator pitch), what would it be?
- 3. If you felt the experience was useful, why is that? What benefit did 197B offer you during the course?
- 4. How do you feel your 197B experience has helped you in other courses? In what ways did it help?
- 5. If you were to give a future 197B student advice, what would it be?
- 6. If we define a *workshop* as a space for reviewing and revising and define a *studio* as a space where you get extra help with your work and your writing, do you feel that 197B was a workshop or a studio?
- 7. If you had a magic wand or a time machine, what would you have changed about your 197B experience?

Note

1. IRB Protocol Number: 2106926122

References

- Adams, Peter D., Gearhart, Sarah, Miller, Robert, & Roberts, Anne. (2009). The accelerated learning program: Throwing open the gates. *Journal of Basic Writing*, 28(2), 50–69. https://doi.org/10.37514/JBW-J.2009.28.2.04
- Agboka, Godwin Y. (2013). Participatory localization: A social justice approach to navigating unenfranchised/disenfranchised cultural sites. *Technical Communication Quarterly*, 22(1), 28–49. https://doi.org/10.1080/10572252.2013.730 966
- Agboka, Godwin Y. (2014). Decolonial methodologies: Social justice perspectives in intercultural technical communication research. *Journal of Technical Writing and Communication*, 44(3), 297–327. https://doi.org/10.2190/TW.44.3.e
- Ahtone, Tristan. (2020, March 30). Lost and found: The story of land-grant universities. *High Country News*. https://www.hcn.org/issues/52.4/editors-note-lost-and-found-the-story-of-land-grant-universities
- Babich, Nicholas. (2020, November 24). What you should know about user experience design. XD Ideas, Adobe. https://xd.adobe.com/ideas/career-tips/what-is-ux-design/
- Behm, Nicholas, & Miller, Keith D. (2012). Challenging the frameworks of colorblind racism: Why we need a fourth wave of writing assessment scholarship. In Asao B. Inoue & Maya Poe (Eds.), *Race and writing assessment* (pp. 127–140). Peter Lang Publishing.
- Blekic, Mirela, Carpenter, Rowanna, & Cao, Yi. (2020). Continuing and transfer students: Exploring retention and second-year success. *Journal of College Student Retention: Research, Theory and Practice*, 22(1), 71–98. https://doi.org/10.1177/1521025117726048
- Boston, Wallace, Ice, Phil, & Burgess, Melissa. (2012). Assessing student retention in online learning environments: A longitudinal study. *Online Journal of Distance Learning Administration*, 15(2).
- Chamely-Wiik, Donna, Frazier, Evelyn, Meeroff, Daniel, Merritt, Jordan, Johnson, Jodiene, Kwochka, William R., Morrison-Shetlar, Alison I., Aldarondo-Jeffries, Michael, & Schneider, Kimberly R. (2021). Undergraduate research communities for transfer students: A retention model based on factors that most influence student success. *Journal of the Scholarship of Teaching and Learning*, 21(1), 193–224. https://doi.org/10.14434/josotl.v21i1.30273
- Chow, L., & Sajonas, Sandra. (2020). From UX study to UX service: Using people-centered research methods to improve the public library experience. *Public Library Quarterly*, 39(6), 493–509.
- Crusan, Deborah. (2006). The politics of implementing online directed self-placement for second language writers. In Paul Kei Matsuda, Christina Ortmeier-

- Hooper, & Xizoye You (Eds.), *The politics of second language writing: In search of the promised land* (pp. 205–221). Parlor Press.
- Crusan, Deborah. (2011). The promise of directed self-placement for second language writers. *TESOL Quarterly*, 45(4), 774–780.
- Durack, Katherine T. (1997). Gender, technology, and the history of technical communication. *Technical Communication Quarterly*, 6(3), 249–260.
- Gere, Anne R., Hutton, Lizzie, Keating, Benjamin, Knutson, Anna V., Silver, Naomi, & Toth, Christie. (2017). Mutual adjustments: Learning from and responding to transfer student writers. *College English*, 79(4), 333–357.
- Gläser, Thomas, Jaritz, Markus, & Sackl, Philipp. (2013, April 22). *Mapping the disciplines of user experience design*. Envis precisely, GitHub. https://github.com/envisprecisely/disciplines-of-ux
- Inoue, Asao B. (2009a). Self-assessment as programmatic center: The first-year writing program and its assessment at California State University, Fresno. *Composition Forum*, 20.
- Inoue, Asao B. (2009b). The technology of writing assessment and racial validity. In C. Schreiner (Ed.), *Handbook of research on assessment technologies, methods, and applications in higher education* (pp. 97–120). Information Science Reference.
- Jones, Natasha N. (2016). The technical communicator as advocate: Integrating a social justice approach in technical communication. *Journal of Technical Writing and Communication*, 46(3), 342–362. https://doi.org/10.1177/0047281616639472
- Kenner, Kylie. (2016). Student rationale for self-placement into first-year composition: Decision making and directed self-placement. *Teaching English in the Two-Year College*, 43(3), 274–289. https://library.ncte.org/journals/TETYC/issues/v43-3/28377
- Klausman, Jeffrey, & Lynch, Signee. (2022). From ACCUPLACER to information self-placement at Whatcom Community College: Equitable placement as an evolving practice. In Jessica Nastal, Maya Poe, & Christie Toth (Eds.), Writing placement in two-year colleges: The pursuit of equity in postsecondary education (pp. 59–83). The WAC Clearinghouse; University Press of Colorado. https://doi.org/10.37514/PRA-B.2022.1565
- Lee, Robert, & Ahtone, Tristan. (2020, May 19). How they did it: Exposing how U.S. universities profited from Indigenous land. *Global Investigative Journalism Network*. https://pulitzercenter.org/stories/how-they-did-it-exposing-how-us-universities-profited-indigenous-land
- Lee, Robert, Ahtone, Tristan, Pearce, Margaret, Goodluck, Kalen, McGhee, Geoff, Leff, Cody, Lanpher, Katherine, & Salinas, Taryn. (2020, March 30). Land-grab universities. *High Country News*. https://www.landgrabu.org/
- Mamiseishvili, Ketevan, & Deggs, David M. (2013). Factors affecting persistence and transfer of low-income students at public two-year institutions. *Journal of College Student Retention: Research, Theory and Practice*, 15(3), 409–432. doi:10.2190/CS.15.3.f

- Messer, Kris, Gallagher, Jamey, & Hart, Elizabeth. (2022). A path to equity, agency, and access: Self-directed placement at the Community College of Baltimore County. In Jessica Nastal, Maya Poe, & Christie Toth (Eds.), Writing placement in two-year colleges: The pursuit of equity in postsecondary education (pp. 85–105). The WAC Clearinghouse; University Press of Colorado. https://doi.org/10.37514/PRA-B.2022.1565.2.03
- Nastal, Jessica, Poe, Mya, & Toth, Christie. (Eds.). (2022). Writing placement in two-year colleges: The pursuit of equity in postsecondary education. The WAC Clearinghouse; University Press of Colorado. https://doi.org/10.37514/PRA-B.2022.1565
- Poe, Mya, Elliot, Norbert, Cogan, John A., Jr., & Nurudeen, Tito G., Jr. (2014). The legal and the local: Using disparate impact analysis to understand the consequences of writing assessment. *College Composition and Communication*, 65(4), 588–611.
- Robinson, Joy, Lanius, Candice, & Weber, Ryan. (2017). The past, present, and future of UX research. *Communication Design Quarterly*, 5(3), 10–23. https://doi.org/10.1145/3188173.3188175
- Rosenberg, Michael J. (2016). Understanding the adult transfer student—Support, concerns, and transfer student capital. *Community College Journal of Research and Practice*, 40(12), 1058–1073. https://doi.org/10.1080/10668926.2016.121 6907
- Royer, Daniel, & Gilles, Roger. (1998). Directed self-placement: An attitude of orientation. *College Composition and Communication*, 50(1), 54–70.
- Royer, Daniel J., & Gilles, Roger. (Eds.) (2003). *Directed self-placement: Principles and practices*. Hampton Press, Inc.
- Royer, Daniel J., & Gilles, Roger. (2012). The private and the public in directed self-placement. In N. Elliot & L. Perelman (Eds.), Writing assessment in the 21st century: Essays in honor of Edward White (pp. 363–369). Hampton Press, Inc.
- Saldaña, Johnny. (2016). *The coding manual for qualitative researchers.* (3rd ed.). SAGE Publications.
- Saenkhum, Tanita. (2016). Decisions, agency, and advising: Key issues in the placement of multilingual writers into first-year composition courses. Utah State University Press.
- Toth, Christie. (2018). Chapter 4. Directed self-placement at "Democracy's Open Door": Writing placement and social justice in community colleges. In M. Poe, A. B. Inoue, & N. Elliot (Eds.), Writing assessment, social justice, and the advancement of opportunity (pp. 137–170). The WAC Clearinghouse; University Press of Colorado. https://doi.org/10.37514/PER-B.2018.0155.2.04
- Toth, Christie. (2019). Directed self-placement at two-year colleges: A kairotic moment. *Journal of Writing Assessment*. 12(1). https://escholarship.org/uc/item/6g81k736
- Toth, Christie, & Aull, Laura. (2014). Directed self-placement questionnaire design: Practices, problems, possibilities. *Assessing Writing*, 20, 1–18. https://dx.doi.org/10.1016/j.asw.2013.11.006

Valentine, Jeffrey. C., Konstantopoulos, Spyros., & Goldrick-Rab, Sara. (2017). What happens to students placed into developmental education? A meta-analysis of regression discontinuity studies. *Review of Educational Research*, 87(4), 806–833. https://doi.org/10.3102/0034654317709237

VanOra, Jason. (2019). "It's Like One Step for Me to Go Forward": A longitudinal study of community college students' perceptions on the value of developmental education. *Community College Enterprise*, 25(1), 59–76.

Vowel, Chelsea. (2016, September 23). Beyond territorial acknowledgments. âpihtawikosisân. https://apihtawikosisan.com/2016/09/beyond-territorial-acknowledgments/

Wang, Zhaozhe. (2020). Toward a rhetorical model of directed self-placement. WPA: Writing Program Administration, 44(1), 45–67.

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