

# Developing effective academic accommodations in higher education: A collaborative decision-making process

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## Abstract

This case study describes a collaborative decision-making process for developing effective academic accommodations for a music major with a disability, whose prior accommodations suggested by the Disability Support Services (DSS) failed to address her needs. Cross-departmental collaboration between the DSS and the School of Music, as well as dynamic interactions among students with disabilities (SWDs), faculty members, peer tutors, and DSS specialists are emphasized. Multiple sources of information were collected, including in-depth/semi-structured interviews and a review of all relevant documentation such as case reports, weekly logs, email correspondence, results of psychological testing and academic portfolio contents. The themes that emerged from the data include resistance to the unknown, the language of negotiation, the decision-making process, and transformation (with three sub-themes: from fear of stigmatization to self-advocacy, from resentfulness to acceptance and commitment, and from reaction to pro-action). Key elements contributing to the collaborative process consist of effective communication among all members, the promotion of self-advocacy skills for SWDs, and faculty's recognition of SWDs' potential to succeed and while engaging flexible methods for delivering course content and assessing

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outcomes. A framework for delivering viable services for music majors with disabilities is outlined and discussed.

### **Keywords**

academic accommodations, disability services, music, postsecondary education, students with disabilities

### **Introduction**

Nancy, a music major who receives accommodations related to her diagnosis of attention deficit hyperactivity disorder (ADHD), recalled how she felt after failing a required fundamental music theory class:

From my time entering the university, I took my tests with extra time. Other than music theory, I don't feel that I have struggled in any of my coursework in terms of the difficulties that I have had. ... There were times when I just wanted to transfer to a non-music major so I wouldn't have to do music theory again, but I'm not going to give up, you know, and take the easy way out.

On the other hand, Gina, Nancy's theory instructor, remarked on her struggle when she first began to work with the Disability Support Services (DSS): "I mean, they have been really helpful; they bend over backwards. The only thing that was frustrating was it is music; people don't understand music unless they're musicians! It's hard to explain because this is just how we do it."

According to the US National Center for Education Statistics (Raue & Lewis, 2011), students with disabilities (SWDs) account for 11% of all students in higher education, a percentage that has steadily grown to nearly double the 6% reported in 1999. Similar trends have been reported in Australia (Department of Education and Training, 2014), Canada (Harrison & Wolforth, 2012), and the UK (Higher Education Statistics Agency, 2017). Among SWDs in higher education in the US, 31% reported having specific learning disabilities, followed by ADHD (18%), mental illness or psychological or psychiatric conditions (15%), health impairment (11%), limited mobility or orthopedic impairment (7%), hearing impairment (4%), cognitive or intellectual disabilities (3%), autism spectrum disorders (2%), traumatic brain injury (2%), and language and speech impairment (1%) (Raue & Lewis, 2011). Given the diversity of their disabilities, these students require an array of accommodations. The most frequently reported academic accommodations are additional time to take exams (93%), classroom note takers (77%), written course notes or assignments (72%), alternative exam formats (71%), and adaptive equipment and technology (70%) (Raue & Lewis, 2011).

Essentially, the retention of SWDs is directly related to how well the provided accommodations match the students' specific needs and assist them in fulfilling the expectations of their academic activities (Jensen, Petri, Day, Truman, & Duffy, 2011). For SWDs who major in music, mastering components of coursework such as performance, composition analysis, and music dictation and notation pose unique demands because they include multisensory (i.e., auditory, visual, and kinesthetic) integration. To date, however, research has offered little information about accommodations tailored to the needs of SWDs in university music programs. Therefore, this study aims to investigate the process of developing effective accommodation strategies for music majors with disabilities in order to outline a framework for delivering viable services.

### *Literature review*

As delineated in the Americans with Disabilities Act (1990; Americans with Disabilities Amendments Act, 2008), as well as the Canadian Human Rights Act, *R.S.C., 1985, c. H-6* (Minister of Justice, 1985), the Equality Act 2010 in the UK (The National Archives, 2010), and the Disability Discrimination Act 1992 in Australia (Federal Register of Legislation, 1992), institutions in higher education globally are legally mandated to provide reasonable accommodations to SWDs in order to ensure their accessibility and full participation in academic activities. Although decisions concerning the degree of accommodation are made on a case-by-case basis, accommodations cited most often include services involving human support (e.g., interpreters, note takers, and proctors), assistive technology (e.g., voice recognition software, screen readers, and digital recording devices), and test-taking aids (e.g., extended time and a distraction-free environment) (Barnard-Bark, Lechtenberger, & Lan, 2010; Fossey et al., 2015; McCoy, Owens, Dickinson, & Walker, 2013). In some cases, modifications of academic policies and practices (e.g., course substitutions and extended time to complete degree requirements) are necessary and are allowed as long as they do not compromise the academic standards or alter the essential functions of the program (Lombardi, Vukovic, & Sala-Bars, 2015; U.S. Department of Justice, 2010).

While much research has investigated the accommodations for elementary and secondary school students with various disabilities in music classrooms (e.g., Adamek & Darrow, 2010; Darrow, 2015; Mazur, 2004), little information is available concerning students of music in higher education. Although attention to disability-related topics has recently gathered force, especially among faculty who teach fundamental music theory classes, most literature shares only anecdotal narratives documenting personal experiences, practical pedagogical suggestions, and available technology and resources (Jensen-Moulton, 2009; Johnson, 2009; Morris, 2009; Pacun, 2009; Quaglia, 2015; Saslaw, 2009). Among the topics of such research, Braille notation and assistive technology for students with visual impairment have been most frequently documented.

In one case report, Jensen-Moulton (2009) described her experiences as an instructor teaching a music theory class with a student, Daniel, who had suffered a traumatic brain injury that manifested in short-term memory loss and constant disorientation. Daniel received general accommodations provided by the DSS, including a note taker and twice the time allowed for taking tests and quizzes. However, the note takers sent by the DSS did not know music notation, and the extended time did not accommodate the challenges Daniel faced while taking tests. In response, Daniel's father stepped in and replaced the note takers. After much trial and error, Jensen-Moulton eventually learned that reducing the quantity of test items and offering frequent breaks during tests improved Daniel's chances for success. In this case, no communication was observed between the instructor and the DSS.

### *Conceptual framework*

In the US, unlike students in K–12 schools, SWDs in higher education are required to self-identify as having a disability if they wish to request accommodations, which in turn demands strong self-advocacy skills. For high-school students entering universities, this stark difference in institutional practices complicates the transition and often results in SWDs refraining from seeking support from the DSS (Lightner, Kipps-Vaughan, Schulte, & Trice, 2012). According to the US National Longitudinal Transition Study-2 (Wagner, Newman, Cameto, Garza, & Levine, 2005), among youth who received special education services in high school and pursued postsecondary education, only 40% reported to their universities' DSS and received accommodations. Factors associated with adverse attitudes toward requesting accommodations include: (a) a need to establish a

new identity to reduce stigma and prevent negative social reactions; (b) negative preconceptions about the quality, efficiency, and helpfulness of DSS and the accommodations process, especially the risk of losing confidentiality; (c) resistance from faculty who are reluctant to provide accommodations; and (d) a lack of literacy among SWDs to explain the depth of disability or how it can affect their classroom participation and academic performance (Barnard-Brak, Sulak, Tate, & Lechtenberger, 2010; Lightner et al., 2012; Marshak, Wieren, Ferrell, Swiss, & Dugan, 2010).

Because DSS specialists typically are not subject matter content experts, music faculty's attitudes and practices toward accommodating SWDs are critical. Prior research has suggested that faculty in general have positive attitudes and are willing to provide minor accommodations for SWDs (Cook, Rumrill, & Tankersley, 2009; Lombardi et al., 2015; Murray, Wren, & Keys, 2008), however, they are often reluctant to provide major accommodations that would require modifications to classroom policies (e.g., permitting reduction of course loads and alterations of major assignments). Several factors contribute to this resistance, including: (a) misconceptions that major modifications give SWDs unfair advantages and diminish academic standards (Dallas, Upton, & Sprong, 2014; Lombardi, Murray, & Gerdes, 2011; Skinner, 2007); (b) feeling underprepared (Dallas et al., 2014; Lombardi & Murray, 2011; Persaud & Leedom, 2002; Raue & Lewis, 2011); (c) time constraints; (d) increased workload without compensation; and (e) lack of support from the administration (Levey, 2014).

Traditionally, service delivery for SWDs in higher education follows a linear process in which the DSS determines what accommodations are appropriate and relays that information to the faculty (Guzman & Balcazar, 2010). Although such recommendations are based on a review of the student's current diagnosis, the results of psychological testing, and the impact of current functioning, faculty members remain reactive and minimally involved. In recent years, the collaborative decision-making model that values the interaction between faculty and the DSS as well as the involvement of students has been proposed by disciplines requiring specialized skills, including those of allied health professionals (Laird-Metke, Serrantino, & Culley, 2016; Sharby & Roush, 2009). To determine effective accommodations, the model emphasizes faculty input in identifying the technical standards of the discipline and analyzing criteria for learning activities, as well as students' participation in the development and evaluation process. To ensure the compatibility of the accommodations, the needs of the students, the task demands, and the context, special attention is given to how the functional impact of students' conditions interacts with the academic setting, program requirements, and course assignments (Laird-Metke et al., 2016).

Given the increased diversity of SWDs and the complex needs of an array of academic disciplines, increasing collaboration among the DSS, academic units, and general student services across campuses is considered the best practice (Jensen et al., 2011; Korbel, Lucia, Wenzel, & Anderson, 2011). However, more emphasis has been placed on the collaboration of the DSS and institutional administrative units (e.g., Student Affairs and Instructional Support Services) than of the DSS, academic units, and faculty members who provide direct assistance and communication in an effort to meet students' needs (Korbel et al., 2011).

### *Purpose of study and research questions*

The purposes of this study are, therefore: (a) to understand the process of identifying and implementing effective academic accommodations for a music major with a disability; (b) to explore the challenges and successes of cross-departmental collaboration between the DSS and the academic department (i.e., the School of Music); and ultimately, (c) to propose a framework for delivering viable services for SWDs who major in music. In order to deepen the understanding of this unique experience, the qualitative inquiry is guided by the following research questions:

1. How and why were specific accommodation strategies developed and what were the outcomes?
2. How has cross-departmental collaboration shaped the experiences of the music major with a disability and other stakeholders (i.e., academic advisers, faculty, peer tutors, and DSS specialists) involved in the process?

## **Method**

Given the lack of information regarding accommodations for music majors with disabilities in higher education, this study implemented a qualitative approach to describe the essence of participants' experiences in real-life contexts. More specifically, it used a single case-study design to investigate the "particularity and complexity" of a unique case to represent commonality (Stake, 1995) and to "understand why a set of decisions revolved around an exemplary case were taken, how they were implemented and the results of the decisions" (Yin, 2014, p. 2). Multiple sources of data were collected via in-depth/semi-structured interviews and a review of all relevant documentation, including case reports, weekly logs, email correspondence, video recordings, results of psychological testing, and academic portfolio contents (e.g., projects, assignments, and examinations).

### *Site selection and participants*

The study took place at a mid-size private institution on the West Coast in the US, committed to student-centered learning. Students receive a high degree of personal attention, ensuring a meaningful learning experience. The university's DSS office is housed under the Division of Student Life and serves approximately 450 SWDs, who accounted for 10% of the total student population. The School of Music has a total enrollment of 230 undergraduate and graduate students, and is composed of 20 full-time faculty members and approximately 35 adjunct instructors.

Participants included: (a) Nancy, an instrumentalist who was pursuing a Bachelor of Arts degree (BA) in Music and who has a documented disability of ADHD; (b) Adam, Nancy's academic adviser, who has 15 years of experience in teaching various music-related, lecture-based courses; (c) Samuel, a DSS specialist with more than 10 years' experience; (d) Gina, an instructor who has taught foundational music theory courses for 10 years; and (e) Tricia, a peer mentor with a music background who was assigned to work with Nancy directly. All names have been replaced with pseudonyms, and all identifiable information has been altered to protect confidentiality.

### *Procedures*

Upon receiving a signed informed consent from each participant, personal contacts were established to schedule standardized open-ended interviews conducted in person that lasted approximately 60 minutes each. Interview content was recorded with a digital voice recorder and transcribed verbatim for further analysis. Other sources of information were collected from the DSS (e.g., case reports), the instructors of the music theory classes (e.g., course materials), Nancy's academic adviser (e.g., academic portfolios), and peer tutor (e.g., weekly logs).

Qualitative analysis was conducted via the following steps, as recommended by Yin (2009, 2014): (a) attending to all evidence by reviewing multiple sources of data collected to identify key issues; (b) converging all data via a pattern-matching procedure to develop codes and identify significant quotations; (c) developing descriptions of each code; and (d) generating assertions through the process of researchers' interpretations. Two researchers conducted open coding independently, and their results were compared. Differences were discussed and resolved to reach

consensus and to ensure inter-coder agreement (Stake, 1995; Yin, 2014). To enhance validity and minimize misrepresentation and misunderstanding, participants were provided with a copy of his or her transcript and a draft manuscript of the study to (a) verify the accuracy of the transcript, (b) provide necessary clarification of responses, and (c) suggest feedback on the draft manuscript for publication.

## Findings

### *Background*

Nancy had just completed her sophomore year when she failed the second required music theory course (a series of two courses across an academic year). Although most BA students complete the music theory coursework in the freshman year, Nancy failed the first theory class and had to wait until the following year to retake the series. Her academic adviser, Adam, was apprehensive about her ability to succeed in the program: “I was nervous, especially with the requirements for music theory. If you don’t pass the course on the second try, you’re disqualified.” He was also concerned about how failing again would impact Nancy’s self-confidence: “It takes a tremendous toll on the student’s self-esteem. You are removed from your cohort, and, all of a sudden, you are somewhere else. ... It’s kind of like *The Hunger Games*, you know; you’re out.”

Having worked with the DSS Office since enrolling as a freshman, Nancy’s accommodation letter suggested that she needed extended time on examinations (i.e., time and a half) in a reduced-distraction environment, extended time on assignments, and support with note taking. She had also received additional tutoring services. Information that was not provided in the letter was that Nancy was diagnosed with ADHD, inattentive-type. She had faced challenges such as sustaining attention, retaining and processing information, visual scanning and organizational skills. However, Nancy’s documentation revealed that her IQ was greater than that of 95% of the people her age and that she actually fell within the gifted range.

The music theory class that Nancy took was offered via a lecture-style format, with a traditional instructional approach in a group class environment. This class focused on diatonic and chromatic harmony, including non-harmonic tones, tonicization, modulation, cadence, phrase structure and simple forms. It was fast-paced and covered a great deal of content. Adam reported:

The sort of classroom instructional model that works for fundamental music theory for most students was actually 180 degrees out of sync with the way that Nancy could actually learn things ... the faster the pace and the higher the stakes, the more difficult it was for her.

Nancy easily became over-stimulated with sensory overload in the class and, as a result, had difficulty concentrating and absorbing information. She struggled with demonstrating her knowledge in written tests, especially under time constraints, which escalated her anxiety significantly.

After several discussions with Nancy, Adam communicated with the DSS Office and music theory faculty that it would not be to Nancy’s advantage to simply retake the course. He had concluded that the teaching–learning dynamic was clearly not working for her. Adam suggested investigating other ways to help the student fulfill the course requirements and initiated the cross-departmental collaboration.

### *The cross-departmental collaboration*

Samuel, the DSS specialist, discussed the cross-departmental collaboration:

It was a pioneering moment, when we spent a lot of time with discussions and email exchanges and trying to come up with different opportunities and agreements. There were these “a-ha!” moments that kept occurring between the faculty and the Disability Office. So, collaboration and taking this team approach were really the necessary pieces to come up with strategies and outside-the-box thinking that wouldn’t compromise the integrity of the program.

The themes that emerged from the analysis of this cross-departmental collaboration process include resistance to the unknown, the language of negotiation, the decision-making process, and transformation (with three sub-themes: from fear of stigmatization to self-advocacy, from resentment to acceptance and commitment, and from reaction to pro-action).

*Resistance to the unknown.* Initially, all parties involved demonstrated a lack of knowledge; the music faculty lacked disability awareness, whereas the DSS had limited knowledge of specific requirements within the field of music and the nature of classes in the School of Music. In addition, neither party understood how Nancy’s challenges were manifested in a music-learning context or what additional accommodations would effectively support her. Gina recalled, “The accommodation letter did not indicate the severity ... and I have not taken any courses about disabilities ... No one told me what to do, and no resources were available.” On the other hand, Samuel admitted:

My background has nothing to do with music or anything of the sort. When I first started working with Nancy, I was somewhat under the impression that as long as we provided the accommodation of extended time on exams that she would be okay. It worked for other lecture-style classes, but not music theory.

The music theory faculty were additionally concerned that the rigor and essential requirements of the course would be decreased or, as Gina put it, become “a workaround that might leave the student without the necessary information in the curriculum that you need to continue on as a musician.” Before making any efforts to remediate strategies, the faculty wanted to confirm that Nancy could fulfill the fundamental competencies without lowering the standards of the course. As Adam recalled, “I think that there was initial resistance from the music theory faculty. It was like, ‘Wait, the syllabus isn’t changing! You have to know how to do this in order to complete this class.’” Adam and Samuel reassured the department’s faculty that any agreed-upon accommodations would not compromise the essential standards of the program and explained that, in doing so, the goal was to remove some of the barriers to allow Nancy to meet all requirements and demonstrate her knowledge.

*The language of negotiation.* It took communication among all members involved, as well as the provision of different sources of evidence, to convince the music theory faculty that Nancy could succeed without lowering the standards of the program or courses. The use of non-technical language to explain issues of disability and the requirements for music theory, supported by written documentation and video recordings of Nancy’s testing sessions demonstrating her capability, were crucial in reaching a mutual understanding and gaining a full comprehension of Nancy’s strengths and challenges. Reviewing Nancy’s videotapes allowed multiple faculty members from the department to provide feedback about the process in a team-based approach.

Samuel started his preparation by thoroughly reviewing Nancy’s documentation, learning about the uniqueness of the music program, the courses, and the assignments, as well as meeting with Nancy. He explained that doing so helped him to gain insights and develop a new way of articulating

to the music faculty Nancy's strengths and challenges in a meaningful and contextual way. It also assisted in determining collaboratively what and how accommodations would be implemented in the music theory course. Adam greatly appreciated the information and stated:

Samuel had explained in layman's terms to a degree that I could understand. They educated me, because I was unaware of what the issues were, and I could understand from a curricular and testing point of view what the problems and difficulties were for Nancy.

With Nancy's consent, several sessions of her solving questions about music theory were recorded. In addition to writing her answers on paper, Nancy was asked to describe her thought process and the steps involved. Samuel explained: "In terms of the writing, she failed it. She did not get the information across. But, in talking about it, she was able to verbally start touching upon those rules and the steps and clearly demonstrated that she knew what they were and how to apply them."

The fact that Nancy was able to articulate her process of developing answers was enough for some faculty to change their perceptions of her. As Samuel reenacted, "Wait a minute, wait a minute—if she knows that, then she's clearly picking up information from the class and the foundational stuff from previous classes. We might be missing the mark here!" This finding confirmed that Nancy might be learning much more information than she could demonstrate using traditional examination formats.

Once the mindsets began to change, "Nancy was no longer considered someone who wasn't putting in the effort and who was distracted all the time," Samuel commented with a sense of achievement. Adam further reflected, "At the time, I didn't know exactly the path that we'd end up taking, but once communications were clear, personalized, and two-way, I felt confident that we would reach a good conclusion."

*The decision-making process.* Several accommodations were developed and implemented as part of the collaborative effort of all team members, especially through Nancy, who had reported her challenges with traditional assessments. These accommodations included test modifications, individualized instruction, and extended course scheduling, as well as additional specialized tutoring support. They were not predetermined, but resulted from a decision-making process of continuous give-and-take, discussion, and negotiation—that is, a work always in progress. The process included the following steps: (a) analyzing the subject-specific required tasks and expected outcome responses, (b) identifying the challenges that Nancy may have encountered, (c) brainstorming reasonable accommodations to remove the barriers, (d) implementing the accommodations, and (e) evaluating the outcomes for necessary modification.

The use of a modified testing format is representative for illustrating this decision-making process. The regular music theory course stipulates three examinations per semester; each contains three to four pages full of questions and staves. Gina noted, "I guess that just seeing all of that there would really stress her [Nancy] out and maybe cause her to spend like two hours on one page, whereas other kids would be like, 'I have to keep going; there's a time limit.'" Nancy tended to become overwhelmed and "shut down," to borrow Samuel's words, upon encountering unmanageable chunks of information. The group concluded that the single modality was problematic for Nancy to demonstrate her learning. They further determined that the extended time on the test and the reduced-distraction testing environment did not work effectively.

The team brainstormed strategies to modify the written examination in terms of how the test was delivered (i.e., input) and its content, as well as how Nancy demonstrated her knowledge (i.e., output) and the outcome measures. The test items were reduced both in magnitude of scope and in



quantity. The schedule of three major examinations over a semester was replaced with weekly or biweekly quizzes addressing each module. The number of questions was condensed to one or two in order to only test key concepts that could demonstrate understanding.

As Gina and Tricia observed, Nancy constantly mixed the treble and bass clefs. In fact, she would switch from one to the other halfway through an analysis or during the construction of a four-part harmony written response. Nancy also reported not having enough space to write her answers on the staves. To help her organize and process information, the test questions were provided one at a time on a large whiteboard with staves. The test instructions were presented in both written and oral formats. During the test, instead of picturing a keyboard “in her head,” an electronic keyboard was provided to prompt Nancy’s recall of information. Adam remarked that, even later in the process, when Nancy did not rely on the keyboard and whiteboard as often, “the fact that they were there gave her the comfort of knowing that there were multiple ways to show her understanding.”

The success of adopting these accommodations provided stronger evidence that Nancy could indeed learn and demonstrate the music theory course content. Not only did it convince people working with her directly, but also administrators and other faculty members in the School of Music. As the process progressed, a major modification—stretching the class structure from a one- to a two-semester format—was supported by the team members, the music theory faculty, even those who were initially apprehensive about compromising standards. In implementing these accommodations and seeing their success, further changes became possible.

### *Transformation*

The collaborative process has transformed all team members, including Nancy, and ultimately precipitated a shift of attitude for the music theory faculty. As Samuel put it, “It actually was kind of a wake-up call for a lot of us involved, and certainly myself included, on how we can really accommodate students in ways that allow them to succeed and aren’t all that difficult.” Although subject to an individualized, case-by-case approach, Nancy was one of Samuel’s first cases in which he delved deeper to better understand the real reasons for some of the challenges and how they interacted with a specific subject—in this case, music.

*From fear of stigmatization to self-advocacy.* Looking back on the experience, Nancy reflected, “I probably shouldn’t be so afraid to speak up when I feel like I need assistance or if something is just not working.” This shift for Nancy involved moving from being unwilling to disclose to faculty members that she had a disability and needed accommodations, to actively articulating her needs and contributing to discussions regarding possible accommodations. Multiple stakeholders were actively involved in identifying Nancy’s strengths and understanding her needs in the initial stage, which helped to calm her fears about being stigmatized as less capable. Adam remarked,

I think that the first thing was that her self-confidence was really low, and that’s one of the challenges for working with students who may not learn as other students do—that, first off, it’s natural to internalize their stress and their concerns.

Adam remembered his initial meetings with Nancy after he learned about her struggles in some of her coursework. In those meetings, Nancy would obliquely bring up the fact that she “had difficulty sometimes retaining information” but “just wouldn’t tell professors.” Adam immediately knew that it was a situation that would require closer monitoring. Gina also noted that Nancy “was pretty tight-lipped about her challenges. She didn’t like to—I mean, I can understand—to talk about it.”

To address this obstacle, one concerted effort for all team members was to maintain confidentiality in order to allow Nancy to feel comfortable and supported. For example, Nancy usually met with her tutor in a private setting instead of the dedicated tutoring/practice rooms typically reserved for all students. As Tricia described, “She was a little concerned with going to the main practice rooms and having someone always be seeing her with a tutor, and people were going to start asking, ‘Why is she with a tutor?’” Over time, Nancy became less self-conscious and much more open and confident in discussing her challenges with learning. As Nancy gained confidence by succeeding in her program, she understood that it was her responsibility to make sure that she received appropriate accommodations. Adam remarked, “One of the most important successes—a breakthrough—is being able to talk frankly about the situation with Nancy and together try to develop some kind of plan to help her to succeed.” In retrospect, Nancy wished that she could have been “more vocal and made sure that people knew what she needed help with” from the beginning.

*From resentment to acceptance and commitment.* In the beginning of this collaborative journey, Gina was frustrated with the lack of understanding and guidance from the DSS and expressed the pressure and anxiety that she experienced:

I didn’t understand what I needed to do or how I should do it. There was nobody to go to who would say, “This is what you do.” The fact that the DSS did not understand music was a huge thing. . . . In terms of the emotional toll that it took to be caught in the middle of that and not even truly knowing what the extent of the situation would be, that was hard for me.

In addition, Gina thought initially that it was unfair to other students to provide accommodations to SWDs: “Why does this student get an advantage of more time than the other students? If the other students had more time, they’d do better, too.”

In progressing through the process with Nancy and with a better understanding of the difficulties that SWDs face, Gina became more empathetic: “Wow! How can one person have all of these challenges that they have to deal with? It’s amazing that students can thrive and succeed and do well despite all of the hardships.” She understood that Nancy had tried to do the best that she could, but “because of the way her brain processes or works, it was a lot different than an average student.” Samuel also noticed the change, “I don’t know how many, but Gina put in many, many extra hours, and I think that part of it was that there was a commitment after realizing that Nancy had the potential to succeed.” With the knowledge of and support from members on the team, Gina overcame her resentment and fear and became committed to go above and beyond to find effective strategies that would help SWDs.

*From reaction to pro-action.* The process of accommodating Nancy contributed to an attitude shift for music theory faculty, from one of passivity and reaction to pro-action, involving a greater acceptance of SWDs and a willingness to support them. Because Nancy consistently surprised faculty members and exceeded their expectations, they started to realize, “Hey—wait a minute. She *can* succeed. She *is* smart!” From that point forward, they began to view SWDs with an open mind and a positive attitude. Samuel noticed that changes began to occur. Not only did faculty members think creatively regarding accommodations, but they also became more receptive of different learning styles and reconsidered how they conduct assessments. Furthermore, the department is now more self-reliant upon encountering SWDs and less dependent on the DSS. Samuel attested,

I’ve seen it happen with other students now. I mean, I could give you multiple examples of how faculty are just so willing to work with students. . . . There are students that may not have been retained who are now succeeding in the program, and I’m not really having to get involved as much anymore, which is why I’m saying that the culture has been changed, in that, they are willing to support these students on their own.

## Discussion

The results of this study delineate a collaborative decision-making process for developing effective academic accommodations in a fundamental music theory class for Nancy, a music major with ADHD. Nancy's prior accommodations suggested by the DSS (i.e., extended time on examinations and assignments, a reduced-distraction testing environment, and support with note taking) failed to address the barriers she encountered with a fast-paced, traditional instructional approach that adopted only a single-modality assessment method. Given the unique interaction of disability-related needs and the challenging demands associated with music requirements, as well as the expertise required to address the situation, a team was necessary to devise creative, reasonable, effective solutions. To that end, a great deal of discourse occurred in discussions, exchanges, and negotiations.

The collaborative process initially encountered resistance and a lack of knowledge, yet soon progressed to include effective communication strategies in various formats, all aimed toward reaching mutual understanding and acceptance. Ultimately, a decision-making model for identifying and implementing effective accommodations was developed in light of the two research questions, addressed as follows.

### *How and why were specific accommodation strategies developed and what were the outcomes?*

Based on the results of cross-departmental efforts between the DSS and the School of Music, as well as dynamic interactions among the SWD, faculty members, peer tutors, and the DSS, major accommodation strategies involving test modifications, individualized instruction, and extended course scheduling were implemented. The academic accommodations or modifications implemented specifically for Nancy and the rationale for each appear in Table 1.

The accommodations were developed via a seven-step process that involved: (a) exchanging information on disability awareness and subject-specific knowledge via a shared language; (b) discussing and identifying essential functions of the academic standards of the major, program, and course; (c) analyzing required tasks and expected outcome responses; (d) identifying strengths and potential challenges and barriers; (e) developing reasonable accommodations; (f) implementing accommodations; and (g) evaluating outcomes for necessary revisions. The process is similar to that of the model promoted by disciplines requiring specialized skills (Laird-Metke et al., 2016; Sharby & Roush, 2009), for it emphasizes the partnership of the DSS specialist, the faculty, and the SWD. It also underscored the importance of the compatibility of the proposed accommodations, which considered the functional impact of the SWD's conditions and how those circumstances interacted with the demands of the tasks (e.g., learning activities and course assignments) and the context (e.g., academic setting and program requirements).

During the collaborative process, effective communication is vital in response to the initial lack of knowledge and concerns regarding the risk of compromising the rigor of academic standards versus the right of SWDs to participate fully in learning activities. The use of non-technical terms and respectful, inviting, and bidirectional communication style are recommended in order to reach mutual understanding. Faculty members are encouraged to initiate the collaborative process by reaching out to the DSS for additional information not shown on SWDs' accommodation letters, including the functional limitations of the SWDs in their courses. Likewise, to bridge the knowledge gap, it is recommended that the DSS recruit faculty liaisons in subject areas such as music, in order to establish collaborative partnerships. The outcomes of such collaborative efforts have supported Nancy's growth, not only in her

**Table 1.** List of academic accommodations/modifications and rationale for Nancy.

Category	Accommodation/Modification	Rationale
Academic practice	Extended time to complete the course requirements	Break down course content into manageable chunks
Instruction	Individualized instruction	Allow individualized pacing
Test	Frequent testing schedule (from three majors exams to biweekly quizzes)	Break down test content into manageable chunks and test immediately after each segment
	Reduced test items to one or two representative questions per key concept	Provide equitable assessment, focus on comprehension and application
	Provide both oral and written instructions	Provide multiple ways of representation
	One test item per page	Address issues with visual scanning
	Allow additional oral responses	Provide multiple ways of expression
Use of assistive equipment	A large whiteboard with staves	Address issues with visual scanning
	Keyboard	Address issues with visual scanning and memory retrieval
	Video recorder	Record additional oral responses, detect error patterns, and allow team review
Additional support	Specialized tutoring from peer mentor	Review course content, answer questions, and practice additional exercises

academic performance, but also in how she overcame her fear of disclosing her disability and became her own advocate.

### *How has cross-departmental collaboration shaped the experiences of all stakeholders involved in the process?*

The process has transformed all team members in meaningful ways. Evident changes were most significantly observed in Nancy, who overcame her fear of disclosing her disability and became her own advocate, and Gina, the faculty member, who altered her oppositionist viewpoint, relented in questioning the fairness of accommodations, and became an ally of SWDs.

*Nancy's growth in self-advocacy.* For SWDs, self-advocacy involves disclosing personal disabilities as well as describing how they affect learning and create challenges in specific classroom settings, all in order to gain appropriate accommodations. In general, the DSS promotes independence in SWDs by encouraging them to communicate directly with professors about their challenges. As Samuel explained, "We [the DSS] hope to instill a sense of personal power so students can become self-advocates." Although Nancy had received coaching to develop related skills, she remained unable to overcome her fear of being stigmatized. She did not act as her own advocate but instead relied on the advisor to initiate the process, which is consistent with difficulties observed when SWDs transition from high school to college (Lightner et al., 2012).

Ultimately, however, as she experienced greater success and received additional measures to ensure the confidentiality of her accommodation process, she was able to develop self-confidence and assume responsibility for advocating on her own behalf. As Nancy's case shows, although the DSS provides orientation for SWDs upon their matriculation at college, to bridge the gap between high school and postsecondary school, identify resources on campus, promote bonding, and facilitate interaction with the DSS, continued support and follow-up remain necessary to ensure SWDs' success.

*Gina's conceptual change.* Similar to faculty members documented in the literature (e.g., Dallas et al., 2014; Lombardi et al., 2011), Gina initially felt unprepared to implement major accommodations and modify course requirements, as well as overwhelmed by and skeptical about the prospect of such action. To overcome those reactions, she and her colleagues needed to observe Nancy's strengths and potential to succeed, which additional communication and hard evidence in the form of documentation and videos helped to achieve. As their case demonstrates, both professional development training about disability awareness toward understanding the functional impact of specific disabilities and effective strategies that promote the academic success of SWDs are necessary to transform faculty perceptions. Consequently, faculty members will become more sensitized to the challenges that SWDs might face in relation to complex subject material and more receptive to various accommodation strategies. As Adam put it,

It used to be like, "You need to study harder!" or "You need to get a tutor!" You, you, you! I realized that it's not all you. Part of it's my, or our, responsibilities as teachers to say, "Let's explore what the issues might be," and "Let's discuss how you might find a path that will allow you to demonstrate the skill or knowledge or proficiency that you need to show."

Nancy's success eventually prompted a cultural change in the music theory program, whose faculty no longer passively rely on the DSS, but have adopted creative strategies to proactively accommodate SWDs. After realizing that students such as Nancy had the potential to succeed, the music theory program became more open to working with students who have various challenges and needs and to providing support in innovative ways. In fact, the program's new instructional and assessment approaches (e.g., presenting information in various formats and allowing different modalities for students to demonstrate understanding) that the faculty developed for Nancy have provided an inclusive learning environment that might benefit all students, with or without disabilities, to better convey what they know, have learned, and can do.

In summary, for subject areas that require specialized skills and with which DSS personnel have less familiarity, in this study, music theory—cross-departmental collaboration between academic units and the DSS, and the involvement of faculty and SWDs are critical in the decision-making process for developing effective accommodations. The key elements of success include the promotion of (a) communication that allows for information exchange among all members involved, (b) SWDs' self-advocacy skills and confidence levels, and (c) faculty's receptiveness of SWDs' potential to succeed and use of flexible methods of delivering course content and assessing outcomes. However, due to the single case-study design, caution must be used in generalizing the findings of this study to larger populations. The study might have been strengthened had multiple cases of students with various disabilities been included and cross-case analyses been conducted to examine this collaborative model. In future practice, subject-specific accommodations to address various areas in music studies in higher education should be documented and tested for effectiveness.

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