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Campus assessment instruments can explore the campus climate for students, faculty, and staff with disabilities, contributing useful insights for services and program development.

Disability-Friendly University Environments: Conducting a Climate Assessment

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Introduction

What constitutes a supportive environment for all students with disabilities in postsecondary settings? After more than ten years of collecting data focused on the provision of educational supports to students with disabilities in postsecondary education, we have discovered numerous intervening variables that contribute to a supportive environment. In many postsecondary situations, accommodating college environments are linked to a generalized climate of support for all students, especially those learners most in need of accommodation and assistance. This line of inquiry led researchers at the Center on Disability Studies (CDS) at the University of Hawaii at Manoa to utilize and study institutional climate assessment (CA) processes to assess the contexts related to supportive higher education settings for students and faculty with disabilities. Climate assessment is defined as "the systematic measuring of effectiveness in an institution or program area so that an action plan for program improvement can be created and set in motion as a means of inducing change" (Nisonger Center 2006a, 2006b).

This climate assessment was initiated during the late 1990s by a network of national partners collaborating under the funding umbrella of the National Center for the Study of Postsecondary Educational Supports (NCSPES) at the University of Hawaii at Manoa (http://www.rrtc.hawaii .edu). Further research (funded by the U.S. Department of Education's Office of Postsecondary Education) was undertaken to explore supportive college and university environments in an effort to inform and improve the

attitudes and skills of postsecondary faculty supporting and teaching students with disabilities. These activities led to collaboration between CDS researchers and project staff from other universities to develop and pilot a range of CA instruments. As these efforts have progressed, our confidence in the promise and efficacy of CAs has deepened. We have translated their usage into other endeavors, including using a CA to survey attendee knowledge at the beginning and end of a one-day conference and the assessment of community organizations that work with volunteers with disabilities.

The authors of this chapter began exploring CA instruments, piloting their use, and developing detailed descriptions of the CA process in collaboration with the Nisonger Center at Ohio State University. CA modules were developed as part of the Faculty and Administrator Modules in Higher Education (FAME; http://www.oln.org/ILT/ada/Fame/) project (Stodden and Brown 2006a, 2006b, 2006c, 2006d). Individuals from three institutions of higher education developed and piloted a series of four CA instruments and companion instructional modules. The authors of this chapter developed the majority of the descriptive modules and collaborated with many other individuals at three institutions to produce the CA instruments. This involved numerous conference calls and a succession of drafts over a two-year period before the effort was finalized. Why expend so much effort on an institutional CA?

Why a Climate Assessment?

The term *climate assessment* may resonate with countless implications and definitions to different people and constituencies—and, in a way, that is part of its appeal. Owing to our role as a University Center on Excellence in Disability tasked to promote full community inclusion of individuals with disabilities (Association of University Centers on Disabilities [AUCD] n.d.), researchers at CDS have concentrated on disability-focused applications of CAs. In this context, we view disability, like ethnicity and gender, as a form of diversity. For many institutions, the conceptual orientation of disability as an aspect of diversity is a new concept. For this reason, it is an exciting time to evaluate how disability is perceived as a component of university life. While disability issues are the focus of the use of CAs in our work, they may be used to evaluate many other aspects of university life and institutional endeavors.

CA instruments can be utilized in a variety of settings to provide assessment and evaluative information and insight. Program or project administrators can use CAs to secure data that may reveal either the efficacy and benefit of their programs or, conversely, that these programs do not yet meet stated performance objectives and require more support and/or funding to achieve specific goals. Within higher education, meeting the preceding objectives first requires the availability of data from many sources, including faculty, students, staff, facilities personnel, admissions and records offices,

research units, outreach schools, and other institutional entities tasked with specific university missions. Second, administrators must have a means to interpret data relevant to their need or purpose. Third, administrators or their institutional representatives need to report CA data in language that is accessible to their superiors and the public at large. However, once the data are collected, interpreted, and reported, administrators have the ability to develop strategic action plans to attend to problems, concerns, or inquiries suggested by the evidence, such as responsiveness to issues like student retention, resource distribution, instructional quality, support services, and the diversity of the university population.

An advantage of CA instruments is that they may be applied by academic professionals in a variety of settings and used with nearly any population or across a combination of groups such as students, faculty, staff, and facilities personnel, or any other targeted population. College deans might want to use the CAs within the context of their colleges, or within departments, or even in specific classes. Professors may also find CAs useful within their classes. CA data can be collected and refined within any of these contexts and groups to focus on a value or characteristic such as ethnicity, age, gender, and disability.

When CA instruments become part of an institutional mind-set and are well utilized, they offer great potential to enrich institutional statistics and action. From a data perspective, this might include elevating institutional data resources about student recruitment, retention, and matriculation rates, including analyzing data for specific disability groups or other selected variables, or encapsulating developments over different periods (e.g., from one to ten or more years). To stimulate action, a university might use CA evidence to ameliorate the quality of instruction, perhaps by refining existing instructional methods and curricula. Academic and other support services can also benefit from insight gleaned from a CA to resolve issues concerning access or accommodations. Another reason for using a CA is that it is a nonintrusive and efficient means of gathering and evaluating important information such as demographic data, admissions data, and class evaluations. The CA process may also be used within classes as a one-time exercise, across courses, or even within disciplines, as a foundation for institutional research studies. Understanding why and how to use a CA will help administrators and others to maximize their benefit from employing a CA.

What Is Climate Assessment Measurement and How Is It Used?

Prior to developing a CA instrument, collaborators should agree both on the specifics of what they are assessing and their objectives for undertaking the CA process and using the resulting data. So just what does *climate* mean, in the context of higher education? Giorino (1995) defines climate as:

> The prevailing condition affecting life and activity. In an academic setting the climate is set by the expectations and past experiences of students, faculty members, and staff; by the history of the institution; and by the behaviors and goals that are expected and rewarded. (2)

More recent publications have offered more detailed explanations and definitions of what is meant by *climate.* In *Making Diversity Work on Campus*, Milem, Chang, and Antonio (2005) built on existing conceptual frameworks to detail and discuss racial climates on postsecondary campuses. They developed concepts that include psychological and behavioral climates as they relate to institutional structure, external forces, and ethnic or racial compositional diversity. A disability-inclusive definition of climate should include factors relating to the physical environment, accessibility of modes of teaching and learning, and available supports. For example, would a person with a learning disability have access to text in formats other than print?

Assessing institutional climates is not a simple task and requires data collection, interpretation, and comprehension around a plethora of complex issues. While a CA instrument is designed to elicit specific information during a given period of time, it is essential to understand that CA is also a dynamic process. The CA instrument may be undertaken as a stand-alone activity but may best serve as a tool within a continuum of assessment instruments and activities. Design and use of CA instruments has generally consisted of three phases of activity: preassessment (instrument development), assessment (using the instrument), and postassessment (evaluating the results of instrument responses). The following explanation details this process.

Preassessment Phase. This phase may also be viewed as the instrument development and piloting stage. Typically, a group of stakeholders assemble, either in person or via electronic communications, to develop a CA instrument. The group has a focused area of concern, such as student attitudes about and behavior toward persons with disabilities. Our own experiences within this process suggest that this phase can require significant time investments. In one instance, due to the involvement of a very diverse group of individuals and organizations representing a variety of constituencies and interests, we concluded that four different CA instruments were needed to get at the depth and breadth of data we desired. While this process required considerable time and effort, the results proved invaluable to the achievement of our assessment and evaluation objectives.

Faculty at CDS focused on the objective of developing and explaining the CA instruments to assess attitudes, physical access, and support services, while faculty at Ohio State worked on developing objectives, introductions, definitions, and case examples for the Preassessment, Assessment, Postassessment, and Institutional Data modules. Each module was piloted at our own universities and with colleagues at other universities and community colleges.

In designing the CA instruments, the cohort weighed standard survey design considerations such as time required, use of language, accessibility, and other issues. We deemed twenty questions as optimal for our collection purposes. By targeting items to specific areas of inquiry, and omitting items that did not fit our very tight focus, our instrument proved easy to complete within a reasonable amount of time. This led to high completion rates for the instrument in use and, ultimately, the collection of useful targeted data.

We refined the CA instruments by utilizing feedback garnered during piloting to better focus on our overall objectives for assessing climate relating to disability. As the attitudinal survey took shape, we used what we learned to further refine and morph three other instruments with the following focuses: programmatic supports, physical/facilities access, and instructional access. We then piloted each of these instruments and determined that we now had the CA instruments needed to achieve our goals of collecting data in a consistent manner across groups. In addition to assessment data, we collected process data to inform the undertaking of future administrations of the resulting CA instruments.

As the cohort agreed on and finalized the items to use in our CA instrument, we also developed a scoring guide for analysis of the results. After numerous discussions around design, selection, and scoring of our CA items, we decided to use an equal number of questions to which respondents could answer either "Agree" or "Disagree." We then further divided these twenty questions into subsets of four or five, refining the instrument even further as we moved into the assessment phase of this undertaking. This preassessment phase may be complex, as varying constituencies agree on what will be assessed, how and by whom these assessments will be conducted, and who will evaluate the results. However, once this was accomplished, the administration of the instrument could finally move forward.

Assessment Phase. In an effort to achieve consensus, we discussed the following variables concerning the administration of the CA instruments.

1. *Whom Do We Need to Complete the CA Instruments?* We chose to begin with our group members. Everyone involved in teaching or making presentations had opportunities to utilize the CA instrument(s), and to collect data and offer feedback to further refine the process. Participants included graduate students in classes in disability and diversity, and graduate assistants. Because we continually refined the instruments and the process, we often moved between the preassessment and assessment phases.

2. *When and How Often Should These Instruments Be Used?* This question can be responded to differently depending on the circumstances and CA process. For example, a CA instrument might be administered in a formative manner to a class at the beginning, middle, and conclusion of a semester to discern if any changes occurred during the course of

the class. In another situation, for example, a training workshop, a CA could be distributed at the beginning and end of a half-day or full-day training session.

One CDS project developed the CA instrument and scoring tool included in Exhibits 9.1 and 9.2 for a 2007 postconference of the Pacific Rim Conference on Disabilities, called "Teaching All Students, Reaching All Learners: Innovative Ways to Address Disability and Other Forms of Diversity in the Postsecondary Classroom." We modified this instrument to include only ten items so that it could be completed and scored quickly. Before using the instrument at the workshop, we piloted it internally at CDS and refined it based on staff feedback. Each of these questions had a specific goal: to lead to an understanding of the audience. This information was then used to divide the audience into groups to work on issues of disability accommodation provision, universal design for instruction, and faculty support provision.

3. *Who Will Collect the Information?* This discussion will probably already have occurred during the preassessment phase. During the assessment process, the individual or office responsible for supervising, collecting, and evaluating the data will need to be identified and have the resources to achieve this task. After data collection is complete, the data will be delivered to the party accountable for analyzing them, which triggers the postassessment phase.

Exhibit 9.1. Climate Assessment

| I am a(n): | ____ Instructor/Faculty | ____ Administrator |
| | ____ Support Person | ____ Student |

Using the rating scale provided below, place an "A" for Agree or a "D" for Disagree in each space provided to indicate your agreement or disagreement with the statement. Please respond to each item and complete the survey honestly and thoroughly. Thank you for your time and patience.

A = Agree   D = Disagree

1. _____ Students with disabilities are responsible for initiating conferences with instructors to discuss accommodations in a college class.
2. _____ Instructors should know how to differentiate teaching styles, materials, and methods to assist students with diverse learning styles to learn in their classes.
3. _____ Students with disabilities are responsible for obtaining their own accommodations to use library computers.
4. _____ Many environmental and societal conditions prevent students with disabilities from participating in extracurricular activities the same as all other students.
5. _____ Faculty and/or students without disabilities might resent it when a student with a disability uses a notetaker that other students are not allowed use.
6. _____ It is not the responsibility of individual professors to be aware of the different accommodations available for students with various disability needs who are in their classrooms.

(Continued)

Exhibit 9.1. (*Continued*)

7. _____ Students with disabilities should be addressed in the classroom in exactly the same way as all other students who need assistance to learn.

8. _____ Instructors are responsible for making the content they teach accessible to all students in their class regardless of their special needs.

9. _____ Faculty offices should be universally accessible and open to all students regardless of their learning, physical, or mobility needs.

10. _____ Students with disabilities should have the same opportunity as all other students to take online courses.

Exhibit 9.2. Climate Assessment: 2007 CBI Scoring Guide

This instrument is intended to survey attitudes of persons in postsecondary education (administrators, faculty, staff, and students) toward typical situations involving students with disabilities. The instrument seeks to measure how respondents (including persons with disabilities) perceive ten different situations routinely encountered within postsecondary education environments. Respondents are asked to agree or disagree, individually, with each of the ten items below.

In scoring this rating scale it is important for the person charged with this task to note that each of the ten items in the instrument has been identified with either a positive ($+$) or a negative ($-$) value. There are an equal number of items assigned to a negative and positive value (five each). Those items coded with a plus reflect positively on the campus attitudinal climate toward persons with disabilities; those coded as a minus reflect the reverse or a more negative campus attitudinal climate.

Steps for Scoring and Interpretation. Possible responses to items are "Agree" or "Disagree." The following steps are required to score and interpret the results:

1. The first step in scoring this instrument is to understand the relationship between the plus and minus values assigned to the items (noted below for each item) and the response (Agree or Disagree) provided by the person completing the instrument. If the item has been assigned a negative value and the response is "Disagree," then one point is scored for the item. If the response to an item has been assigned a negative value and the response is "Agree," then no point is scored for the item. If an item has been assigned a positive value and the response is "Agree," then one point is scored for the item; if the response is "Disagree," then no point is scored for the item. Also, if the item is left blank, no point is given.

2. The second step in scoring is to add up the number of points given responses for each instrument—the range of points possible for a single instrument should be between 0 and 10, with 5 being a midrange score. The closer the point total for an individual instrument is to 10, the greater the indication of an overall positive attitudinal climate toward persons with disabilities on campus.

3. The third step in scoring is to average the point totals for all completed instruments or for subgroupings of respondents (faculty, students, administrators, or other categories), depending on the goal of the instrument administrator. This step is completed by adding up the totals for all instruments completed (or grouped together) and then dividing that total by the number of instruments used in the averaging process. This should give you an average for scores across a total set of instruments or a specific group of respondents.

Exhibit 9.2. (*Continued*)

4. When interpreting data from this scoring process, averages closer to 7–10 indicate a positive attitudinal climate on campus; averages that drop below 5 provide an indication that a negative attitudinal climate may be present on campus.

Value Coding of Items. Each item on this instrument is worded in a positive or negative manner and has been assigned a value, as follows:

1. ____ + ____ Students with disabilities are responsible for initiating conferences with instructors to discuss accommodations in a college class. (1)
2. ____ + ____ Instructors should know how to differentiate teaching styles, materials, and methods to assist students with diverse learning styles to learn in their classes. (2)
3. ____ − ____ Students with disabilities are responsible for obtaining their own accommodations to use library computers. (1)
4. ____ − ____ Many environmental and societal conditions prevent students with disabilities from participating in extracurricular activities the same as all other students. (3)
5. ____ − ____ Faculty and/or students without disabilities might resent it when a student with a disability uses a notetaker that other students are not allowed use. (3)
6. ____ − ____ It is not the responsibility of individual professors to be aware of the different accommodations available for students with various disability needs who are in their classrooms. (1)
7. ____ − ____ Students with disabilities should be addressed in the classroom in exactly the same way as all other students who need assistance to learn. (3)
8. ____ +____ Instructors are responsible for making the content they teach accessible to all students in their class regardless of their special needs. (2)
9. ____ + ____ Faculty offices should be universally accessible and open to all students regardless of their learning, physical, or mobility needs. (2)
10. ____ +____ Students with disabilities should have the same opportunity as all other students to take online courses. (3)

Postassessment Phase. Perhaps the most significant aspect of the postassessment process is deciding who will interpret the data. As it happened, one member of our group had undertaken CAs as part of her dissertation, to determine how well students with psychological disabilities were supported in different types of academic programs, including classroom settings, compared to clinical or internship program settings. Since the instrument development process (preassessment phase) and the data collection (assessment phase) were part of her dissertation data, it was convenient for her to conduct an analysis of the data and report it out as a part of her overall study (Casey 2006). The research findings indicated that professional development opportunities are needed for faculty and staff to improve the academic climate for students with psychological disabilities (Casey 2006). In addition, "positive attitudinal indicators, increased support provisions, and frequent student interactions between faculty, staff, and students were found to be key indicators for student academic success" (Casey 2006, v).

The authors' findings, when utilizing a CA as part of a pre- and postworkshop assessment to determine change in participants' attitudes and perceptions,

are in support of the findings from Casey (2006). The topics of this workshop were universal design for learning, hidden disabilities in postsecondary education, and assistive technology in postsecondary education. The workshop participants indicated that completing the CA, in and of itself, influenced a positive change in their attitudes and perceptions. In addition, the participants indicated that the pre-CA helped them "immediately" apply the content of the workshop while considering their perceptions and thus adjust them based on the information presented in the workshop.

While the authors and partners involved in the development of the CAs were in a position to analyze the data and report back to the "subjects" in most higher education settings, an Office of Institutional Research would be charged with analyzing and reporting data collected (as currently occurs with student course evaluations in many universities). The postassessment phase should also include discussions to determine where the data will be kept and how different audiences will have access to it. Storage of the actual documents might occur in an administrative office, a library, or a departmental office. In any case, methods for researchers and other interested parties to access the information need to be considered. One possibility would be to share the information via a website. Sharing the data makes sense, since the purpose of the CA process is both to assess current conditions and to stimulate change. Finally, because the CA is a dynamic process, the postassessment stage is most likely to lead directly into the next phase of preassessment instrument planning and another round of data collection.

Conclusion

In university settings there are many benefits to using a CA. One of the most valuable is use by faculty involved in program development, as demonstrated by Casey (2006). Other benefits of CAs may be related to accommodations. This could include (1) informing faculty about the existence and different types of accommodations, (2) differentiating between how students and staff perceive accommodations and their use, (3) thinking creatively about providing accommodations, and (4) determining where and how to implement accommodations.

In addition, CAs can help assess differences including diverse learning needs, styles, and cultures. The dynamic process of CAs and possibly resulting change in program delivery can assist faculty in understanding their own biases and preconceptions and has the potential to ameliorate the teaching and learning experience—for everyone involved.

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