CHAPTER 8.

THEORIZING THE WEC MODEL WITH THE WHOLE SYSTEMS APPROACH TO WAC PROGRAM SUSTAINABILITY

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When administration of WAC programs is discussed in WAC literature, program description and advice are typically emphasized rather than building a theory of administering and building WAC programs. Such a framework with roots in multiple disciplines that overlap enables WAC administrators and oversight committees to examine WAC programs systematically, even when they have developed organically over time. This chapter highlights ways that a WEC model can address threats to WAC programs' sustainability, i.e., the complexities of higher education programs as they relate to administrative structures and leadership. The story of developing the WEC component of FAU's twelve-year old WAC program is one of slow development, broad stakeholder participation, manageable growth, and limited scope. But it is also the story of an institution working through a systematic process of program building that is grounded in what Cox et al. (2018) call the whole systems approach to WAC program sustainability. This chapter traces FAU's process as the first WAC program in the country to implement sustainability indicators as the basis for its formative self-assessment to track all facets of its WAC program. It also demonstrates how other such programs can draw on the whole systems approach for WEC program implementation.

As one of the most systematic and comprehensive models for writing across the curriculum, whole department approaches to WAC such as writing enriched curriculum (WEC) initiatives are more likely to be sustainable over time than many other WAC initiatives. However, the very complexity of WEC with its intensive planning year meetings, seven-year timeline for each participating de-

partment, ongoing assessment support, and financial commitment to support curricular reforms poses its own challenges for program longevity. North Carolina State University and the University of Minnesota have done an extraordinary job of securing necessary resources and marshalling campus support to scale their programs over time. For any institution that hopes to match these successes, there are a number of challenges to address from university buy-in and sufficient funding to strategies for leading departmental meetings and managing assessment processes. Like any university-wide curricular initiative, these challenges are manageable with sufficient groundwork, planning, support, leadership, and tracking. It is important to note further that such complex programs build gradually. Department by department success may move forward then slow before advancing further because of the typical five- to seven-year timeframe for departmental participation. At the higher scales of the institution, across colleges, divisions, and within the upper administration, WEC programs face other types of challenges.

Programs that commit to departmental funding for each WEC proposal and revision need to establish a fiscal model from the start that will be sustainable over time, making sure not to overcommit and leaving room to scale program growth across multiple departments at a time. Similarly, human capital needs to be considered carefully. A director who also serves other administrative roles as well as faculty responsibilities within a department will want to start slowly, perhaps piloting with one department at a time for a couple of years to develop effective strategies managing full-department discussions and building out the tracking systems to ensure departments progress over time. If additional staff are available, then faster growth may be possible. There is a rather high learning curve for any director starting a WEC program, even for someone who has been leading other WAC initiatives over the years because of the level of detail and engagement. Administrators want to see concrete results of their investments, so an integrated, department-specific assessment program is important early on. This assessment process helps drive the credibility and impact of the program. It also contributes to the important threshold shift from pilot to program—the period during which a critical mass of faculty and departments forms to drive campus-wide momentum. As more departments get engaged and come to value the discussions about teaching writing and identifying the abilities and characteristics of successful graduates in their majors, other departments will want to get on board. This period is arguably the most crucial time frame for a WEC program to determine its longevity, which is why this chapter is mostly concerned with these formative years.

Drawing from the whole systems approach (WSA) discussed in *Sustainable WAC* (Cox et al., 2018), this chapter demonstrates how Sustainability Indicators

(SIs) that are tied to program mission and goals can be tracked systematically for signs of success and distress through and beyond these formative years of WEC initiatives to clarify program outcomes and anticipate challenges and long-term growth. In writing that book, Cox, Melzer, and I drew from five theoretical frameworks from various disciplines to develop the whole systems approach (WSA) and vignettes of WAC programs from across the country. At that time, no WAC program, including any WEC initiatives, had implemented the process of determining Sustainability Indicators. Since that time, Florida Atlantic University has undergone this process, which has enabled me to hone and develop it further. Using some brief examples from Florida Atlantic University's creation of a WEC program, this chapter provides an overview of the way that SIs can be utilized as part of the sustainability model at other institutions across the country as they work through the early stages of WEC program development to ensure program sustainability.

FAU'S WAC PROGRAM CONTEXT

FAU's WAC program was well established before WEC was introduced. Since I offered the first workshop in the summer of 2004 and enough courses were certified to launch the official program in 2007, WAC training has become mandated for all WAC faculty. We established an annual assessment process, a three-year cycle for WAC-course recertification, a significant celebration for the National Day on Writing, a student recognition ceremony for published work, and a need for enhancing support for writing in the upper division. While my 40% administrative appointment is dedicated to directing the writing center, WAC program, and community writing center, I have half-time assistant directors for the writing center and WAC respectively, and a manager for the Community Center for Excellence in Writing who works when resources are available but will scale as the organization grows. These institutional realities determine to a large degree what will be possible moving forward.

WEC was first proposed as a QEP initiative that lost out to a broad mandate for undergraduate research that received the lion's share of curricular development funding on campus for the past six years. Hence, from its inception, the WEC initiative was not a funded mandate, but rather a pilot program started with repurposed WAC money from a previous departmental grant initiative that was already part of my annual budget.

The WAC committee spent a semester researching initiatives to enhance writing in upper division courses. After several models were discussed, the committee agreed on WEC because it was a systematic approach that was specifically geared to enhance writing in the majors. FAU was not in a position to mandate

new courses in the upper division or require departments to establish writing in-fused capstone courses for their majors. WEC offered a proven alternative. This groundwork helped us gauge campus interest and develop some buy-in before we started. It also raised the profile of the pilot as I visited each college chair's meetings to introduce the idea and invite participation.

The first pilot department was Languages, Linguistics, and Comparative Literatures (LLCL), whose chair had participated in a year-long learning community I hosted to explore the WEC model. Before the first departmental meeting, Pamela Flash visited our campus to discuss the WEC model and provide documents from the University of Minnesota's program, including a template presentation that I used to develop our first presentation to LLCL based on the survey data to students, faculty, and external departmental stakeholders. We followed up online a couple times as questions arose. In addition to providing an effective design and example of the kinds of data and slides to include, the adaptable template (see Figure 8.1) demonstrated effective uses of data from the student, faculty, and affiliate surveys, strategies for talking about student abilities and characteristics, and the types of student samples useful for facilitating the faculty discussion for the first of four department-wide meetings on WEC.

Figure 8.1. Sample slide from the Google Slides presentation for Political Science at Florida Atlantic University

As a result, I learned to facilitate the conversations by trial and error. It became clear quickly that I needed to develop a new set of skills to manage the complex interactions during these department-wide meetings to keep the conversation on track. I also had to realize that a single meeting would not enable us to formulate all student abilities criteria in final form. With each new department and each new meeting, I gained more confidence and got more effective at guiding these conversations. By the time I started the third department, I was comfortable with the system we had developed and felt confident in our process.

SUSTAINABILITY

Those first few years of the WEC program were designed as a pilot process, which I recommend to any new program just getting started. I could not have begun a WEC initiative with several departments at the same time, especially considering number of commitments I have with other administrative and faculty responsibilities and the range of challenges we faced working with our first department. It had multiple majors across numerous languages and a complex leadership concern that emerged halfway through the year that had nothing to do with the WEC initiative.

After the third department submitted its writing plan, I approached the undergraduate dean to discuss scaling the program to two or three departments a year. I also set up a meeting with the undergraduate dean and an associate provost to solicit upper administration buy-in. Based on those conversations, it became clear that we would not be scaling any time soon.

This scaling question is important for all new WEC initiatives to consider from the outset. Some programs may never attempt to start more than one new department a year. Yet, at a mid-sized state institution, for example, one program a year does not seem practical. A consideration of institutional circumstances may require a WAC leader to moderate expectations for expansion. That person's other responsibilities and levels of additional support will determine to a large degree how many departments can reasonably participate at one time. If new programs struggle to get additional departments involved, then growth can also be limited. If assessment procedures are not in place early in the program, then the program may not be able to demonstrate to the upper administration the impact of the program. If a new program sets funding levels for participating departments at the most desirable levels, it faces the possibility of not being able to scale over time. If it starts at lower levels, it may face the uphill battle of defending a need to increase stipends across the board.

All of the above indicators have proven important factors for FAU, but the financial concerns are the easiest to demonstrate. We repurposed enough funds

to establish a version of Minnesota's funding model, but we did not consider the impact of trying to scale up and could not have anticipated how funding would change state-wide for higher education. Minnesota provides up to $25k for each proposal and two revisions and $5k, $3k, and $3k respective liaison stipends. FAU started with up to $20k for a first proposal and $5k for the liaison. We chose to scale down support for proposal revisions to $10k and $5k respectively so we could gradually transfer costs to each department but leave liaison stipends the same. This meant that after five years of the program with proposal revisions every two years and with each level of funding active (department $20k, $10k, $5k + liaison $5k, $3k, $3k), our standing cost was $46k a year. In our fourth year, we secured an additional $20k in performance funding. Even though we were about $6k shy of full support of the model, we have had little difficulty each year making up the additional $6k in surplus funds from the writing center, which I also manage. The difficulty arose in scaling to the next level. In order to grow from 1 department a year to 2, we would need more than double our current funding to provide for staff support.

It is important, then, for any WEC program to decide how or whether it will develop a funding model (not all WEC programs provide direct funds to departments; see, for example, Anson, Chapter 2 in this volume). The funding model we chose from the outset limited our ability to grow. Even though we had mapped out the costs of scaling the model up to four departments a year when we first devised these stipends, we did not anticipate the impact of a metrics-based approach that the Florida legislature enacted the first year we started the WEC initiative. Each school is pitted against the others for a finite amount of performance funding. The three schools at the bottom of the rankings each year have money taken away. The schools at the very top get significant performance increases. And the rest get smaller performance increases, money that is not automatically recurring funding. The system is designed to support the large state research institutions. Even though we typically rank in the middle of the pack of the 11 state schools, our performance funding increases have not been sufficient to scale our program, and the money is not guaranteed year over year.

Financial instability need not be a primary indicator of distress for WEC initiatives because there is no mandate that funding be offered for departmental proposals. Yet, without incentive, getting the program to a sustainable level university-wide might be difficult. After the first few departments willingly participate, the challenge is to encourage other departments to sign on. If a WEC start-up decides to use departmental grants, then tracking sufficiency of funding should serve as one of the Sustainability Indicators. FAU tracks a set of six SIs, each of which provides more nuanced information on long-term viability.

METHODOLOGY INFORMING SIS

In "Tracking the Sustainable Development of WAC Programs Using Sustainability Indicators" (Cox & Galin, 2019), the concept of SIs is derived from sustainable development theory and practice. Sustainable development was first defined by The United Nations World Commission report of 1987 as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" so that this "future is more prosperous, more just, and more secure" (p. 43). This ambitious political agenda requires buy-in from stakeholders at every level of the system as well as clear guidelines for building consensus and introducing and assessing change.

Cox and I note further that SIs are the tools used to assess this change (p. 6). As Bell and Morse (2008) argue, sustainability itself cannot be measured, only the parameters of sustainability—indicators of whether a project will continue to be viable. They explain further that indicator species used to test the status of ecological environments first stimulated the idea of SIs and have since evolved to include a range of factors that indicate longevity, including those related to social and economic systems. SIs have been used at multiple scales within complex systems, from private corporations to towns and cities to countries and regions and even globally (Hardi & Zdan, 1997). To understand how FAU's WAC committee arrived at the necessary but sufficient set of indicators, I first turn to the methodology of the whole systems approach, a description of Sustainability Indicators, and several strategies to facilitate the process.

Building a sustainable program (or any new project within the program) works through a four-step process, starting with a careful understanding of the campus context, a planning process that sets goals and gathers support, a development stage of implementing program initiatives (or projects), and a lead stage that manages growth, change, assessment, and revision (for more information, see Chapter 3 of *Sustainable WAC*, pp. 51-76). Figure 8.2 represents this cyclical four-stage process.

While the book offers the theoretical framework for deriving the whole systems approach (WSA), 10 principles that govern it, and each of the strategies listed in the white text boxes in Figure 8.1 (see also Cox, Galin, & Melzer, 2018, p. 76), this chapter applies and demonstrates the methodology for developing and tracking SIs within the context of FAU's WEC initiative on the occasion of FAU's 10th year WAC program self-evaluation.

At the beginning of fall 2017, after three years of WEC implementation, the WAC committee decided to undertake a multi-year program-wide self-assessment using the WSA as its framework. But, as noted above, the first stage, *understanding*, had taken place the previous two years as the WAC committee explored the

most viable models for supporting upper division writing at FAU, consulted with Pamela Flash, and hosted a year-long Faculty Learning Community on WEC. As a prerequisite for starting the program, the Dean asked me to gather support across campus for the initiative, so I also spent time meeting with chairs across campus and compiling a list of departments interested in participating. I knew at that time that I would be repurposing money from the existing WAC program for the pilot stage but anticipated that money would eventually be available once we could present data to the university to demonstrate what we have accomplished. Also, having served as the WAC director at FAU for 14 years and developed program mapping strategies in 2007, I had already mapped our program to visualize the nodes and hubs supporting writing on campus. I also had a clear understanding of the writing ideologies on campus concerning WAC work, but the emails to deans and chairs helped me identify eleven departments that expressed interest.
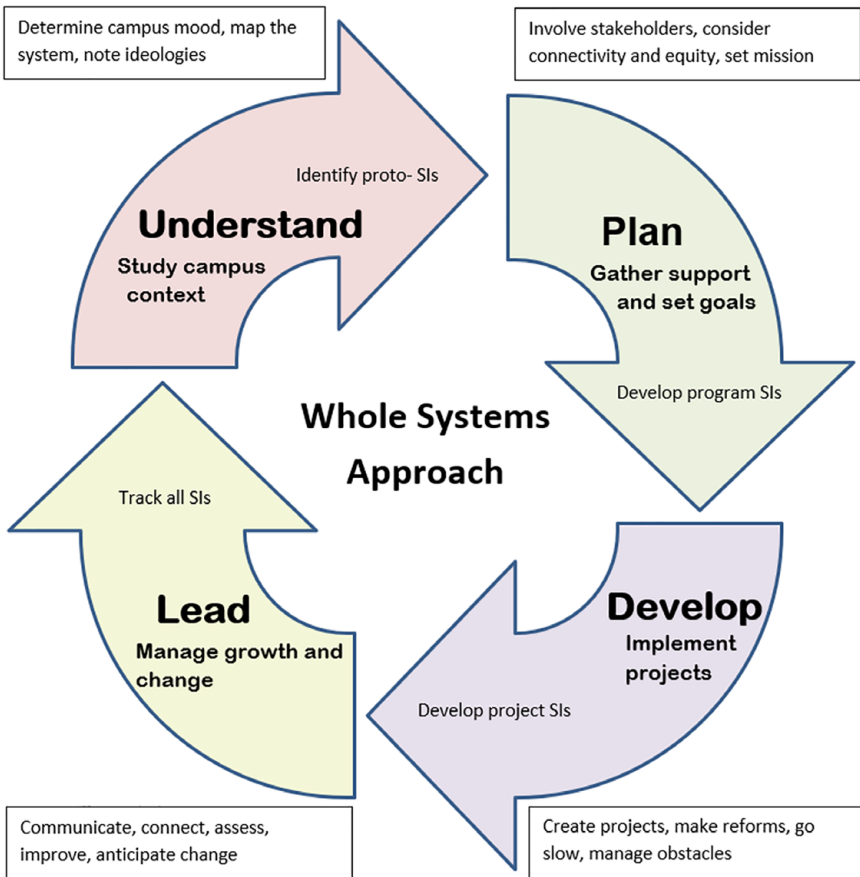

Determine campus mood, map the system, note ideologies

Involve stakeholders, consider connectivity and equity, set mission

Identify proto- SIs

Understand
Study campus context

Plan
Gather support and set goals

Develop program SIs

Whole Systems Approach

Track all SIs

Lead
Manage growth and change

Develop
Implement projects

Develop project SIs

Communicate, connect, assess, improve, anticipate change

Create projects, make reforms, go slow, manage obstacles

Figure 8.2. The Whole Systems Approach (adapted from Cox & Galin, 2018, p. 55)

During the *planning stage* (see Figure 8.2), we reconstituted the WAC Committee to be more representative of the colleges, rewrote the entire WAC program mission, and provided clear goals so we could establish SIs for the entire program. I had cobbled together our initial mission from other WAC programs in 2004 without input from others, which I realized was problematic as we were writing *Sustainable WAC* because a program mission statement and goals need broad stakeholder input. Starting our 10th-year program self-evaluation with mission revision gave us the opportunity to re-envision our program with the new WEC initiative in mind and establish the goals for each facet of the program that would be tracked with SIs.

The value of this exercise was immediately apparent when we focused on issues of equity and connectivity during the planning process for WEC because the existing WAC program was built around WAC-designated courses that were increasingly being taught by adjuncts and instructors rather than full-time faculty. Departments were finding that upper division WAC courses were being taught by the same faculty semester after semester, which became a source of frustration. They were burning out. WEC proposes a solution to this problem at the upper division by enabling departments to distribute efforts of teaching writing across the major rather than designating specific WAC or WEC courses. Furthermore, the pilot process enabled us to build slowly to develop the necessary processes, strategies, and revisions to improve our work with departments on an ongoing basis.

The *developing stage* began with our first department, Languages, Linguistics, and Comparative Literatures, and has continued for the past five years. Developing processes have included liaison and faculty meetings, transcription of these discussions, tracking which departments are at which points in the process, all document templates, and an online management system. Rather than simply importing the assessment processes NC State or the University of Minnesota have devised, we are working out a model with the pilot departments that better fits the context at FAU, a point made by Fodrey and Hassay in Chapter 7 of volume). We have held two meetings for WEC liaisons and chairs in Fall 2018 and Spring 2019 to develop the assessment model and will begin implementing tracking processes later this year. This process has enabled us to gain departmental input and buy-in for the assessment process, a step I would recommend any program developing a WEC initiative to take.

While the ideal time for developing SIs is in the planning stage of a program or one of its new projects, FAU's WEC pilot began a few years before the WSA and its SI methodology was formulated. Thus, we introduced SI development for FAU's overall WAC program in the fourth stage of the WSA, *leading*. As shown in Figure 8.2, this last stage reflects on the work of the other three and

looks beyond implementation to communicating program accomplishments and outcomes, creating wider circles of connections beyond the specific program initiatives, improving what has already been put in place, and anticipating what changes to the program and its various projects might make it stronger still. This is the stage during which the data for SIs are collected and evaluated.

While this work will likely question the sustainability of WEC at FAU, it also provides us a roadmap for addressing these concerns and tracking sustainability into the future, and it provides other programs ways to imaging what using this system might look like at their own institutions. The remainder of this chapter lays out the process formulating and tracking the WEC program SIs and demonstrates the power of using this process.

SUSTAINABILITY INDICATORS FOR
WAC PROGRAM DEVELOPMENT

SIs are critical to the WSA for WAC for several reasons. The use of SIs:

- requires the use of a participatory process that seeks to build consensus about sustainability goals
- compels this stakeholder group to articulate in concrete terms what sustainability means in relation to WAC
- helps WAC leaders notice threats to program and project sustainability and figure out steps for addressing them
- brings together data points from multiple systems (rather than relying on one data point, such as program budget) to create a more nuanced understanding of a program or project's sustainability
- creates clear data that may be communicated to stakeholders as evidence of a program's viability (or lack thereof)
  (Cox & Galin, 2019, p. 42)

Unlike most other forms of WAC program assessment, SI tracking is self-reflective, focused primarily on improving and sustaining the program. It is inward-facing and formative. Typically, WAC program assessments are outward-facing, and summative, concerned primarily with proving that the program is successful. With an emphasis on improving rather than proving, SI tracking need only be concerned with the least number of indicators that are sufficient to track program viability over time. As I explain below, this data provides a clear picture of shifts in program viability, but it can also prove extremely useful to administrators who need to argue for additional resources when clear threats are revealed by the radar charts of resulting data. By emphasizing formative assessment, I am not arguing that summative assessment be neglected. Rather, SI

tracking should become one facet of a full program assessment package that is tailored to each specific WAC program within its institutional context.

Because of their importance to the WSA, SIs are integrated across all four stages, as indicated in Figure 8.2. In the understanding stage, proto-SIs are developed to determine across campus the status of existing attitudes and perceptions about student writing, practices for teaching writing, student support for writing, etc. For example, if a university is developing a WAC program to address a concern that student writing needs to be improved and supported in the upper division, then it is important to determine the current state of writing in the upper division before an intervention takes place. Such information could be collected in faculty, student, and external stakeholder surveys, or existing university-wide assessment data. The aim for these proto-SIs is to inform the stakeholder group conversations so that they can work to shift the culture of writing on campus as they formulate mission, goals, and SIs to track those goals.

With mission and goals established, WAC program SIs can be identified for each primary component of the program and the program overall. As new projects are added, SIs should be included for those as well. During the developing stage, these SIs are operationalized so that data can be collected and graphed in radar charts to provide snapshots of the program each time the data is collected. During the leading stage, these radar graphs are aggregated and analyzed to determine program stability over time. It is worth noting that most new WAC initiatives will not be establishing more than a couple of primary projects for the program at the start. For instance, while FAU has five current projects (supporting faculty, maintaining WAC courses, assessing outcomes, enriching departmental curriculum, and recognizing excellence), it only began with two, WAC course management and faculty training. Had we integrated SI tracking from the start, we would have operationalized these two sets and a third small set for the program overall.

Developing SIs for a well-established WAC program will likely be more complex, requiring sets for all established and developing projects; however, this work can move at a more leisurely pace than that of a newly forming program, unless the program is facing significant challenges that warrant faster action. An established program is not typically under time constraints to implement programs, so its primary work is reflective and self-evaluative. A new WAC program that will involve shifts in the university's curricular ecology from the start, like writing in the disciplines (WID), communication across the curriculum (CAC), or revision of the undergraduate core curriculum, may have pressure to move more quickly from inception to planning, even if implementation slows down. Nonetheless, I have discovered at FAU that two or three meetings a semester of a WAC committee are not sufficient to foster the process of forming mission, goals, SI, and operationalize the SIs. It took our committee two years meeting

three times a term to work through this process, when it could have been completed in one or two semesters if the mission had been established at one meeting, goals at another, and SIs developed at a full-day retreat. For programs just getting started, the process would be even shorter with fewer projects for which to develop SIs, so a half-day retreat would likely suffice.

FAU's recently revised mission and goals provide a useful context for understanding how to establish a set of program SIs. The committee reduced our original two-paragraphs mission into one, eliminated jargon, emphasized support for faculty, focused on critical thinking for students, and added emphasis on reading and writing rather than writing alone. The resulting program-wide mission is clearer, more focused, and more concise:

> The University's Writing Across the Curriculum (WAC) program supports faculty to strengthen teaching and learning writing across all levels and disciplines in undergraduate education. We collaborate with individual faculty and departments to instill in their students critical thinking and complex problem solving through the complementary processes of reading and writing (see https://www.fau.edu/wac/).

Once the mission statement was finalized, the committee turned its attention to goals, which had not previously been articulated. The committee developed five, one for each of the program's primary projects. Goal four, focusing on the WEC project, is as follows:

> (4) Enrich Departmental Curriculum: Lead departments, schools, and colleges through the processes of integrating writing systematically throughout their majors and concentrations (e.g., facilitating department-wide discussions to identify desired student outcomes, mapping departmental curricula, creating assessment plans, and designing departmental proposals for revising curricula in majors and concentrations).

Goals are concrete, lead to direct deliverables, and can be assessed directly. Each goal represents a primary function of the program. And each goal has associated SIs. Once the goals were defined, I facilitated committee discussions to develop and narrow program SIs for each the following semester using a four-step process that maximized stakeholder input. This is the work that would be best carried out during an all-day retreat.

> *List* all SIs that come to mind without censoring or critiquing but still focused on the goal of sustainability.
>
> *Qualify* and narrow the list by determining if each SI is

relevant, easy to understand, reliable, durable, and assessable, does not duplicate others, and asks whether it reveals impacts as it offers historical patterns.

Select the 5–10 most feasible SIs by considering the resources needed to track them, relative importance, and greatest insight.

Unpack each SI to identify implementation procedures by determining if it can be quantified and set the minimum and maximum thresholds (bands of equilibrium). Further revise, narrow, and eliminate SIs through the operationalization process. (Adapted from Bell & Morse, 2008, p. 174, in Cox & Galin, unpublished manuscript, pp. 7-8)

The most productive work the committee engaged in during this entire collaborative process involved SI development and narrowing conversations. As we listed all possible indicators, we began the hard work of noting indicators of distress and success across the WAC program. The obvious stressors were the lack of sufficient funding and insufficient administrative support time to scale the program. But we also identified indicators that could measure university commitment/engagement, student outcomes, and departmental follow-through for WEC proposals.[1]

We winnowed the list of necessary but sufficient SIs from 11 to six for goal four. Part of the narrowing process took into account several of the 15 strategies of the WSA, particularly understanding the interconnected web of writing goals, mandates, programs, initiatives, and resources to help locate points of leverage that can foster greater integration of the program across the university and more significant engagement and change. Once we narrowed the list, we operationalized them on a scale of 0–6, with 1 being the lower limit of sustainability and 5 being the upper limit. These ranges are called the bands of equilibrium (BOE). After introducing the six indicators below, I explain the process of setting these ranges.

1. Number of departments expressing interest in participating in the WEC process in the next 4 years
   - 0.   0
   - 1.   1–2
   - 2.   3–4
   - 3.   5–6
   - 4.   7–8
   - 5.   9–10
   - 6.   11 or more

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1   Readers will find discussions of the tactics that Galin, Cox, and Melzer (2018) used to facilitate these conversations in Sustainable WAC.

2. Percentage of departments with assessment results that demonstrate student improvement in their writing abilities over time.
    0. 0-9
    1. 10–24%
    2. 25–39%
    3. 40–54%
    4. 55–69%
    5. 70–84%
    6. 85–100%

3. WEC initiative enables departments to improve teaching of writing as demonstrated by faculty perceptions and student outcomes.
    0. not at all
    1. to a minor degree
    2. to a below-acceptable degree
    3. to an acceptable degree
    4. to an above-acceptable degree
    5. to a strong degree
    6. to an extraordinary degree

4. Percentage of departments meet the goals they set in their proposals/revisions (within a semester leeway) on the schedule that they established
    0. 0-9
    1. 10–24%
    2. 25–39%
    3. 40–54%
    4. 55–69%
    5. 70–84%
    6. 85–100%

5. Estimated average number of available administrative hours needed per semester to administer the WEC program
    0. over 41 hours surplus
    1. 31–40 hours surplus
    2. 10–30 hours surplus
    3. 9 or less hours surplus or deficit
    4. 10–30 hours deficit
    5. 31–40 hours deficit
    6. over 41 hours deficit

6. Percent of funds available that are needed to support the WEC program per year.
    0. over 15% less needed

1. about 10% less needed
2. about 5% less needed
3. No additional needed
4. about 5 % more needed
5. about 10% more needed
6. over 15% more needed

A good set of indicators serves as a snapshot at a moment in time of a given WEC program, or in this case, program initiative. If the number of departments interested in participating drops below the number of available slots to support new start-ups for a given year, then the program faces a challenge. Any indicator at 1 or below requires intervention. If enough indicators are at or below this minimum, then the program is not likely to succeed unless long-term changes are made. While the upper limit of SI 1 is not likely to cause the program to fail, if enough departments want to get involved and are prevented from doing so because there are not sufficient resources to support their interest, risks increase that departments will get impatient over time and may lose interest. This problem is exacerbated in a program like FAU's because we can only support one department a year. This has meant that we have chosen not to publicize the program widely to overstimulate demand, but it also means that we are always scrambling to find the next department during spring semester. This indicator may need different ranges for a university that can manage multiple departments a year.

Indicator 5 represents the number of available hours that my assistant director and I can reasonably provide support in a given term, and indicator 6 represents the costs of cycling programs through the 7-year process. Indicator 6 is a simple percentage of amounts needed to support the slate of departments participating in a semester or year. If the amount of time exceeds available administrative time, then cost projections go up. If the program is able to scale to more than one department per year, then costs go up considerably.

The scales for each SI should not be set arbitrarily but grounded in university and program practices. Once drafted by the WAC administrator, who has best access to necessary data to determine ranges, they should be discussed with the stakeholder group. Once the lower and upper bands of equilibrium are set at 1 and 5 for each indicator, the rest of the ranges are easy to determine, with three being the midpoint. The typical target for each indicator is in the range of 2–4. As long as all indicators are in these ranges, the program is deemed soundly sustainable. Even an indicator like the third one above, which tests the level of improved teaching of writing, marks unsustainable levels in the 5 range because there is only so much improvement that can be accomplished over time before outcomes level out as judged in improvements of student writing over time. For example, if the

abilities and characteristics of successful student writing in a department are being evaluated on an analytical scale that departments have devised, there is only so much room within a 4-point scale that improvement can occur over time.

Each institution will work at a slightly different pace to establish SIs and operationalize them. FAU will start tracking SIs by the fall of 2019 so that we can generate our first official radar graphs with all SIs represented on a single figure. I have, however, generated provisional data for the past five years in order to demonstrate what a radar graph looks like and to discuss how that data reflects on our program's sustainability (see table 8.1).

From this data one can surmise that the initiative has not yet reached a relatively balanced state. When we were first gathering data to prove that such an initiative was warranted, we had a high number of departments interested in getting involved. I visited each college to explain the program at the Dean Council of each college. Over time, we drew from that initial list, tapping the most interested departments. By the fourth year, several had remained non-committal while others had changed their minds, leadership, or both. Since the assessment process is just going to get underway for the first time this coming academic year, we have no data for indicator 2. Indicators 3 and 4 show that the departments that started working early to create changes in their curricula have begun to see impacts on teaching. One department got a slow start, so the results are not quite aligned to start-up rate expectations. Indicators 5 and 6 both represent the pilot status of the program, that we have maxed out our current capacity to grow above 1 program a year.

Table 8.1. Preliminary data for FAU WEC initiative

	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018
Number of departments not yet involved expressing interest in WEC	6	5	3	1	1
Percentage of departments demonstrating student writing improvement	0	0	0	0	0
WEC initiative enables departments to improve teaching of writing	0	1	1	2	2
Percentage of departments meeting proposals/revisions targets	0	1	1	2	3
Average available administrative hours needed per semester to administer WEC	3	3	5	5	5
Percentage of available funds necessary to support the WEC program per year	1	1	4	4	5

In fact, this last point is quite important when considering the sustainability of any type of WAC program, but particularly WEC initiatives. Most WAC programs are not sustainable in their first three to five years because it takes a significant amount of time to establish a critical mass of support and interest university-wide and shift the curricular ecology of academic institutions. Cox, Melzer, and I did not realize this implication of program start-up in our previous work together. Nor had we considered what implications this realization might have for the program stages that Condon and Rutz (2012) proposed in their WAC program taxonomy. They identified four program types—foundational, established, integrated, and institutional change agent (Condon & Rutz, 2012, pp. 362-363). While we note in our book that this taxonomy does not explain why the latter two types tend to outlast the former two types (Cox et al., 2018, p. 14), we do not note the point that opens this paragraph. Even in their description of the "established" type of program, Condon and Rutz note that funding is often tentative. I suggest further that a large proportion of WAC programs that remain at the first or second levels are more susceptible to failure because they have not become "integrated" into the university's curricular and administrative ecologies and reward systems. The litmus test for impact within a department is demonstrable curricular change, ongoing commitment to support student writing broadly defined, and a fundamental shift in department practices; if this work remains siloed in individual departments with limited external support, recognition, and benefits for their efforts beyond the initial few years, a WEC initiative is not likely sustainable over time. The WSA uses resilience theory to highlight the importance of introducing change, adapting over time, and maintaining a desirable steady state for university-wide for complex systems like universities and their curricular ecologies. This theory also explains the importance of change across multiple scales, from individual faculty and students, to departments, colleges, divisions, and other administrative units and programs. In essence, without a university commitment to institutional change, a WEC program that focuses on work in just a few departments will remain siloed and thereby trapped in smaller scale reforms. The money, energy, and visibility of the program will revert over time as departmental support dries up. WEC programs should be long term university-wide commitments, not just departmental decisions to make some changes, no matter how productive those departmental changes become.

This is not to say, however, that programs in the upper two levels of Condon and Rutz's taxonomy are always sustainable. In fact, we note in *Sustainable WAC* that Washington State's own WAC program went through a challenging stretch in the late 2000s when it became leaderless for a period of time as a result of some political changes at the university ("Improving Rather than Proving"). Every WAC program is susceptible to failure, which is likely why

sustainability rates across the country are no better than chance. Perhaps the most important takeaway of this realization is that we should not be alarmed that programs we are developing have not yet crossed the sustainability threshold early in the start-up process. After all, a pilot program, by definition, is not sustainable until it is no longer a pilot and has permanent funding, stable leadership, and established policies, procedures, and practices. This realization means that evaluating SIs once a year is likely to be sufficient to track program viability and longevity because several years of data are necessary to be able to see trends, recognize problems, and implement solutions. Figures 8.3 and 8.4 offer snapshots of FAU's program after years one and five and demonstrate visually the data in Table 8.1.
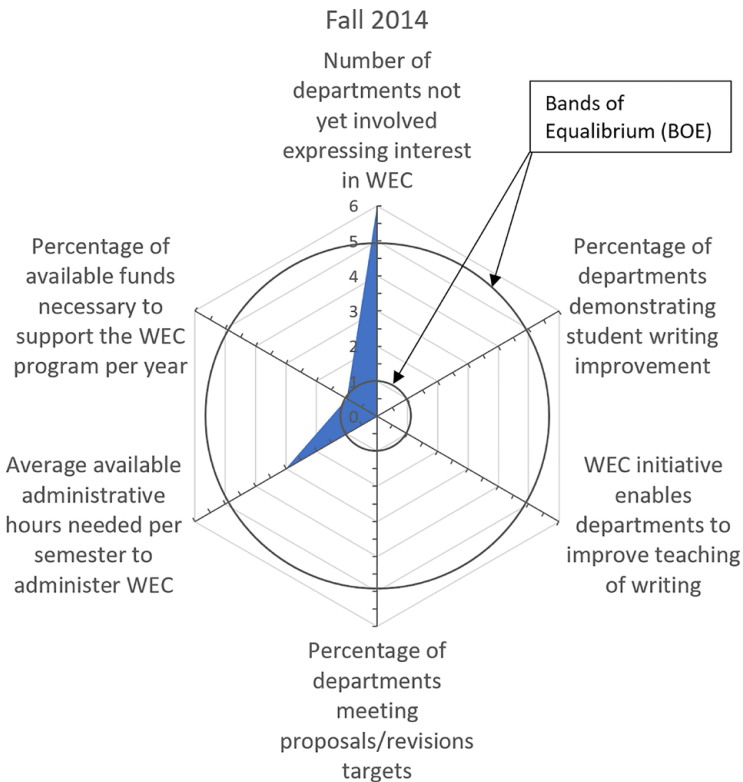

Figure 8.3. First year of FAU WEC pilot before most data could be collected

In the first year of implementation with one department, there were only three measurable indicators, which is why there is no data for three categories. We had an oversized interest and high demands on administrative time with a manageable budget. We started this first year with $5k less support than we needed but had ample surplus to cover the extra cost.
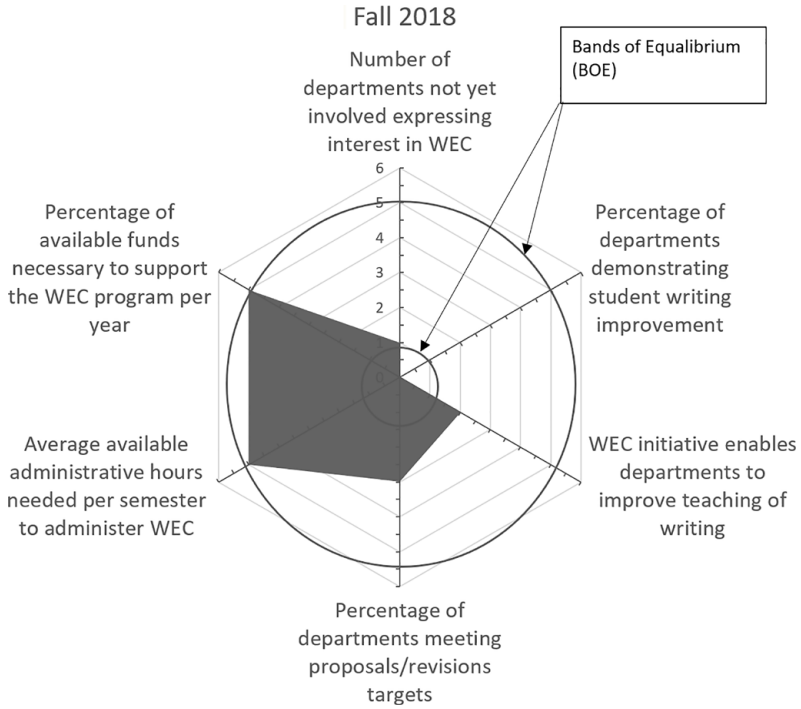
Figure 8.4. Most recent fall semester data demonstrating three of the six indicators verging on unsustainability and one for which data has not yet been collected.

By fall of 2018, with five departments involved, we were able to measure five of the six indicators, all of which were within sustainable range, but three on an inner or outer BOE. We were asked to take a one-year hiatus from starting a sixth department this coming year because the Center for Teaching and Learning lost a previously stable funding source. While we anticipate regaining this money in the future, a recent conversation with the provost made clear to me that future requests for additional funding will be predicated a demonstration of impact on currently participating departments. We hope by Spring 2020 to have assessment data from each participating department on the student abilities that they identified in their initial proposals. It is clear that this data is likely the single most important indicator within our set of SIs to justify expansion. Once we can provide reliable demonstration of curricular impact, we are likely to be able to move the needle on other indicators after the current budget crisis has been addressed. This point cannot be understated. While most of the SIs are geared to provide formative assessment measures, student improvement in writing is essential to both formative and summative measure to assess sustainability and prove the program is working to the upper administration.

Bell and Morse (2008) extoll the value of using these radar charts for SIs. The power of such figures arises from their ability to tell the story of the program in a single visual snapshot. A mostly symmetric shaded area within the BOE (not on its boundaries) would represent a stable and sustainable initiative. While the trend in these SI has been improving over time for FAU, we have a great deal of work still to do to stabilize the program. The initial process of setting up these charts is greatly facilitated with the use of a template, which Cox, Melzer, and I will soon make available on our WAC Consortium website, along with a step-by-step process for chart creation. Once the data is added to the table, it is as easy as selecting the correct data for the new year and pasting the chart onto a new sheet in Excel to add additional iterations.

NOT ALL WAC PROJECTS WARRANT SIS

Not all program elements for WAC are worth the effort to track program sustainability. For instance, an annual faculty recognition ceremony may not be necessary to track. But the complexity of WEC programs makes them particularly good candidates for this type of assessment. It is easy to see the value of systematic departmental change that such programs can bring to a university when one is working with departments over a seven-year timeframe. But it is equally easy to ignore important indicators of unsustainability in such a program as we highlight the remarkable curricular changes that individual departments are making. In a recent conversation with Stacey Sheriff (personal communication, December 8, 2018) about her work at Colby College, I asked her how her program was proceeding. Like me, she is sold on the process and the clear impact it has on the departments that participate. Yet when I asked her about funding, staffing, and numbers of departments participating year over year, it was immediately clear that her program is not yet sustainable either. A soon-to-expire grant has been underwriting Colby's program, and even though she has a part-time assistant to help with the program, they have had to scale back how many departments they can accommodate in a given year. She has, at least, been able to establish an assessment process that can provide data to the university. I expect that we are not alone as new WEC initiatives trying to maintain traction at our respective universities. Clearly, tracking sustainability is a high priority.

FINAL THOUGHTS

Every institution that starts a WEC initiative will need to work during the understanding phase of building a program to determine what is possible and real-

istic. By undertaking a collaborative self-assessment process of instituting SIs for the five major program initiatives and the program overall, the WAC committee has enabled us to uncover program-wide issues we anticipated and others we did not. Had we known to identify these SIs from the outset of the program, we would likely have done a few things differently, which is perhaps the most important takeaway for others considering building WEC programs. Few of us start curricular reform initiatives that we expect to fail, yet we often convince ourselves that we know better than others how to avoid pitfalls or that we just need to get things started before building in more sustainable practices. Most WAC programs begin with energy, commitment, and a loose mandate. Directors jump in head-first with the best intensions. Without a systematic process in place to initiate WEC with stakeholder input, the odds are against program sustainability. For FAU, the most important tools in our arsenal are the upcoming departmental assessment, the recent faculty recognition ceremony that publicized the impressive work of WEC departments, development of a WEC website, and the radar charts of our program to help us prioritize which facets of the program need the most attention.

Programs with existing WAC initiatives have an advantage because of existing infrastructure and staff, established relationships, and a developed understanding of campus support networks, mood, and ideologies concerning writing across the university. At the same time, existing programs that take on WEC initiatives also have existing practices and time commitments that will likely need to be rebalanced and changed, a whole new level of complexity and scale that likely dwarfs what had previously existed, and a potential problem with university buy-in because the upper administration needs to be convinced that such a significant increase of resources for an existing program is warranted.

The obvious solution to many of these problems is to start with a pilot process with one or two departments and to scale over time so that the administrators managing the program have time to develop procedures and strategies for each phase of program development. But scaling from a pilot process to a full-scale WEC program that might work with three to four departments a year requires a more systematic approach that is more than a matter of following a model that has worked at another university. During a pilot phase, a stakeholder group can be formed, practices for public acknowledgement of the program need to be formalized, and use of the WSA, including SIs, can dramatically improve formative assessment of program progress. Since over 50% of WAC programs continue to fail over time (Thaiss & Porter, 2010), it stands to reason that the same will be true for WEC initiatives. Having seen the value of this kind of intensive work first-hand, I can't imagine anyone wanting to launch such an initiative without wanting to ensure its longevity.

REFERENCES

Bell, S., & Morse, S. (2008). *Sustainability indicators: Measuring the immeasurable?* (2nd ed.) [Adobe Digital Editions version]. https://www.u-cursos.cl/ciencias/2015/2/CS06067/1/material_docente/bajar?id_material=1210909

Condon, W., & Rutz, C. (2012). A taxonomy of writing across the curriculum programs: Evolving to serve broader agendas. *College Composition and Communication, 64*(2), 357-382.

Cox, M., & Galin, J. R. (2018). Building sustainable WAC programs: A whole systems approach. *The WAC Journal, 29*, 64-87. https://doi.org/10.37514/WAC-J.2018.29.1.03

Cox, M., & Galin, J. R. (2019). Tracking the sustainable development of WAC programs using sustainability indicators. *Across the Disciplines, 16*(4), 38-60. https://doi.org/10.37514/ATD-J.2019.16.4.20

Cox, M., Galin, J. R., & Melzer, D. (2018). *Sustainable WAC: A Whole Systems Approach to Launching and Developing Writing Across the Curriculum Programs.* National Council of Teachers of English.

Hardi, P., & Zdan, T. (1997). *Assessing sustainable development: Principles in practice.* International Institute for Sustainable Development. https://www.iisd.org/system/files/publications/bellagio.pdf

Thaiss, C., & Porter, T. (2010). The state of WAC/WID in 2010: Methods and results of the U.S. survey of the international WAC/WID mapping project. *College Composition and Communication, 61*(3), 534-570.

United Nations World Commission on Environment and Development. (1987). *Report of the world commission on environment and development: Our common future.* http://www.un-documents.net/our-common-future.pdf