

In Search of Curricular Coherence

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In fall 2013, The Teagle Foundation issued an RFP inviting selected institutions and organizations to apply for grants that addressed the following question: “How can faculty work together to create a more coherent and intentional curriculum whose goals, pathways, and outcomes are clear to students and other constituencies with a stake in the future of higher education?” The grant initiative sought to “support campus initiatives that delve deep into the structure of the curriculum and make transparent to students what they can expect to learn and how the curriculum’s architecture delivers this learning.” A total of 15 implementation grants were funded under the Faculty Planning and Curricular Coherence initiative between May 2014 and May 2018. This essay is based on an evaluation of four of the early grants in this initiative, involving 12 institutions: (a) Oberlin College, College of Wooster, Ohio Wesleyan University, Kenyon College, Denison University, and Allegheny College; (b) Virginia Wesleyan University, Davis & Elkins College, Shenandoah University, and Eckerd College; (c) San Francisco State University; and (d) Pomona College, Claremont McKenna College, Harvey Mudd College, Pitzer College, and Scripps College (i.e., The Claremont Colleges). The author reviewed proposals, annual project reports, and related documentation; conducted annual phone calls with representatives of each participating campus; attended the April 2017 convening of the institutions participating in this initiative; and visited selected campuses.

A Problem of Long Standing

What are students really learning in college? Does the curriculum make sense to them? Can they articulate the intellectual skills they are acquiring through their undergraduate education? Are they seeking answers to important questions and discovering their passions in choosing their courses or are they simply checking the boxes required to earn a degree? How do they navigate the many curricular choices that the curriculum presents?

Many of the answers to these questions lie in the nature of the curriculum offered to students. To what extent has it been designed to enable students to see explicit connections among courses and to scaffold their learning? To what extent has the curriculum grown by accretion, with new courses, majors, and minors balanced by few corresponding reductions in offerings? And to what extent do faculty consider themselves to be independent contractors rather than having collective ownership of the curriculum together with their faculty colleagues? Would a more efficient curriculum, with more limited choices and clearer pathways produce not only better learning but also cost savings or better allocation of resources?

These and similar questions have led a number of national bodies and scholars to doubt the effectiveness of the college curriculum. Critics have described the curriculum as fragmented and lacking coherence, its whole failing to be greater than the sum of its parts. The pieces do not fit together, they have asserted; it has little “discernable shape” (Zemsky, 2013, p. 102) and offers students a vast array of seemingly unrelated choices.

The incoherent curriculum lends itself to metaphorical descriptions. The curriculum has been likened to a jigsaw puzzle, where the overall picture guides how the pieces are assembled, and individual pieces only have meaning when they are put together (Beane, 1995). A patchwork quilt is literally pieced together (National Commission on Excellence in Education [NCEE], 1983). Then there are the culinary metaphors. “[T]he curriculum became a vast smorgasbord of tempting offerings” (Zemsky, 2013, p. 83). This abundant buffet yields “a cafeteria-style curriculum in which the appetizers and desserts can easily be mistaken for the main courses” (NCEE, 1983, p. 15). The unfettered proliferation of courses in many institutions has allowed faculty to teach courses they want and give students maximum freedom to pick and choose from a large menu and select their major by “pick[ing] eight of the following . . . [which] might literally be over a hundred courses, all served up as equals” (Association of American Colleges, 1985, p. 1). The supermarket metaphor points to students as consumers, not just diners, “where students are shoppers and professors are merchants of learning” (AAC, 1985, p. 2).

The fragmentation of the curriculum is not a new issue. In 1983, the NCEE issued its landmark report, *A Nation at Risk*. Although the report focused largely on K-12, it connected the success of students in higher education to their prior educational experiences, calling for a “coherent continuum of learning” instead of “an often incoherent, outdated patchwork quilt” (NCEE, 1983, p. 15). Only two years later, the AAC (now the Association

of American Colleges and Universities [AAC&U]) followed up with *Integrity in the College Curriculum*. The report focused on the decline of the undergraduate degree (AAC, 1985), and especially the incoherence of the curriculum. Among the contributing factors the report cites is the professionalization of the faculty, who are trained in graduate school to be researchers rather than teachers, whose loyalties lie with their departments rather than with the institution, and whose concerns focus on the major rather than the total undergraduate experience. In describing the evolution of the undergraduate degree over the 19th century, the report noted the following, “Faculty control over the curriculum became lodged in departments that developed into adept protectors and advocates of their own interests, at the expense of institutional responsibility and curricular coherence” (AAC, 1985, p. 4). Another contributor to curricular incoherence cited in the AAC report is the “chronic paralysis” of curriculum committees, which serve as gatekeepers and approval or veto mechanisms for curricular initiatives that largely come from the departments. They rarely serve as agents of innovation. The report paid particular attention to majors, which “are not so much experiences in depth as they are bureaucratic conveniences” (AAC, 1985, p. 27), arguing for a curriculum in both arts and sciences and the professions that brings together an understanding of the modes of inquiry of the discipline, its analytic tools and the substance of the discipline, as well a “sequence that assumes advancing sophistication” (AAC, 1985, p. 29). The solution, they posited, lies with administrative leaders, who must be bold enough to prod and reward faculty for owning the problem and working together to solve it, and with professors, who must act on a newly found sense of collective ownership of the curriculum.

Fast forward to 2013. Former Harvard president Derek Bok’s comprehensive study of U.S. higher education, *Higher Education in America*, takes up many of the same criticisms of the curriculum. He noted that the multiple goals for higher education have resulted in a proliferation of requirements and questions whether institutions are actually achieving these objectives:

As a growing number of goals vie for space in a crowded curriculum, it is possible that some of the requirements agreed to by the faculty are uneasy compromises that threaten to produce the worst of both worlds—making enough demands on students’ time to represent a burden but not enough to afford much chance of actually achieving the hoped for result. (Bok, 2013, p. 170)

Bok also questioned whether the major achieves the oft-stated goal of improving critical thinking, especially in the absence of a senior thesis or project, reinforcing the assertion of AAC in *Integrity of the College Curriculum* that

the major in most colleges is little more than a gathering of courses taken in the department, lacking structure or depth, as is often the case in the humanities, or emphasizing content to the neglect of the essential style of inquiry on which the content is based. (AAC, 1985, as cited in Bok, 2013, p. 172)

Electives and general education have their own problems. Bok noted that little is known about how students actually use electives: “Are students exploring genuine interests or are they simply taking easy courses?” (Bok, 2013, p. 172). General education suffers from serving as the “repository for all the purposes not normally fulfilled through majors or the electives” (Bok, 2013, p. 173). The most common form of general education, the distribution model, does not ensure that students will achieve the aims of general education posited by the faculty, who rarely put their assumptions to a test of what students are actually learning in relation to the many goals they have asserted. Bok is not alone in describing the curriculum as a political compromise that satisfies various interest groups and leaves faculty members free to teach classes they prefer.

Addressing the problems of the curriculum, posited Bok (2013), requires collective thought and action by the faculty, a much more difficult undertaking than persuading them to try new teaching methods. Given the complexity of the task at hand, he suggested tackling pieces of it over an extended period of time. Evidence of learning should be a primary consideration—to what extent are students actually achieving stated goals? The major should be scrutinized not only by the school or department but also by faculty members of different disciplines. Electives should be subject to the same evidence-based scrutiny of what students are actually taking and test the assumptions about what the faculty believes electives are designed to achieve.

Robert Zemsky, scholar and “persistent critic” of higher education, has focused on the ineffectiveness of the curriculum for many years (Zemsky, 2013, p. 17). In 1986, Zemsky and his colleague Susan Shaman at the Institute for Research on Higher Education at the University of Pennsylvania analyzed transcripts at 30 institutions to map how students were fulfilling institutional requirements and to validate the AAC’s assertions about the lack of structure and coherence of the baccalaureate (Zemsky, 2013). The resulting publication, *Structure and Coherence: Measuring the Undergraduate Curriculum* (Zemsky, 1989), found ample evidence to buttress the assertions of AACU’s (1985) *Integrity in the College Curriculum*, finding that the curriculum in the liberal arts lacked both breadth and depth “as measured by either structured or temporally focused coursework” (Zemsky, 1989, p. 36). In 2010, convinced that the growth of the curriculum

was the main driver of escalating college costs, Zemsky and Finney (2010) proposed that both student choice and faculty be constrained. Imposing this discipline would improve graduation rates by providing students with clearer pathways. It would also contain costs by diminishing the need to add faculty to teach an increasing number of courses.

The twin themes of constraining costs and improving learning and retention are central to *Checklist for Change* (2013), in which Zemsky outlined in detail the forces driving the unfettered growth of the curriculum, described several institutional approaches to addressing the problem, and offered suggestions for reform. He, too, laid the problem of the incoherent curriculum at the feet of the faculty, citing their fierce defense of their freedom to teach what they wish in “my courses” to “my students” (Zemsky, 2013, p. 25) and their lack of collective responsibility for the curriculum. He called for a stronger faculty voice, greater collaboration, greater commitment by faculty to lead reform efforts, and making the department, rather than the individual faculty member, the unit of production. Additionally, the curriculum must be the product of deliberate design rather than the sum of accretions over time, with a clear statement of purpose, its courses intentionally linked, and desired student learning outcomes deliberately used to guide the curricular design.

Almost 40 years after the 1983 publication of *A Nation at Risk*, Zemsky, Wegner, and Duffield (2018) pondered the riddle of why the problem of the incoherent curriculum is still with us in spite of all of the calls for reform that followed.¹ To answer the question, the authors assembled a team to meet with 180 faculty members from 11 diverse institutions; the goal was to understand how faculty think about their professions, their students, and curricular change. What emerged is a picture of professors who are highly committed to their students, pulled in many directions, and who place tremendous value on autonomy to teach and research as they wish. Among the barriers to curricular change are the cumbersome decision-making processes that often do not result in decisions being made, entrenched faculty interests, a fixation on process that undermines a focus on substance, lack of time to devote to collective efforts to design curriculum, unwillingness to take risks, and the inclination to tinker rather than face a difficult and protracted battle. The real change that has occurred, posited the authors, is

pedagogical innovation, which faculty members can choose to undertake or not, and which allows them to proceed independently to improve their teaching and student learning. Pedagogical reform is less risky and less threatening than curricular redesign since the latter requires collective thinking and action and subtraction rather than addition to the curriculum.

The Teagle Foundation Initiative: Faculty Planning and Curricular Coherence

With these issues in mind, The Teagle Foundation issued an RFP in fall 2013 inviting selected institutions and organizations to apply for grants that addressed the following question: “How can faculty work together to create a more coherent and intentional curriculum whose goals, pathways, and outcomes are clear to students and other constituencies with a stake in the future of higher education?” The grant initiative sought to “support campus initiatives that delve deep into the structure of the curriculum and make transparent to students what they can expect to learn and how the curriculum’s architecture delivers this learning.”

The RFP asked institutions to craft an ambitious approach to curricular change, demonstrating clearer learning outcomes for general education and the major, more interrelationships among courses in a program or major, and “an effort to curb course proliferation and engage in substantive curricular streamlining as part of designing a more intentional and cohesive educational experience.” Other features that were specified in the RFP were: a faculty-owned and led initiative, the creation of a faculty learning community across multiple disciplines and institutions, attention to inter-institutional learning, rigorous assessment of the effects of the curricular redesign on student learning and faculty practices, and a dissemination effort to share the lessons learned by the grantee institution.

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Whose Responsibility? Student and Faculty Roles in Creating Curricular Coherence

As the next section describing curricular strategies illustrates, institutions have different

¹ This book project was funded by the Teagle Foundation under the “Faculty Planning and Curricular Coherence” initiative described in the next section. As the authors noted, the original intent of the project was to document successful curricular reform efforts, but the absence of good examples took the project team in a different direction.

implicit interpretations of curricular coherence and varied approaches to achieving it. Some see the faculty role as paramount; others view the students' efforts to integrate their learning as key, with faculty playing a supporting role. Many faculty members interviewed as part of this evaluation were emphatic that the most important work of making the educational experience coherent lies with the student, and that the role of faculty is to be a guide and mentor in the process. Giving students responsibility for creating coherence can be seen as a celebration of student agency or a refusal on the part of faculty to take responsibility for offering a curriculum that is more than a smorgasbord of courses.

A focus on student agency led a number of institutions to emphasize strategies such as advising and establishing structures to coordinate curricular and co-curricular learning. Sometimes using the term *integrative advising*, institutions sought to redefine advising as supporting students in integrating their different learning experiences. As one project leader put it, "advisors need to be better at asking students why they are taking particular courses and to ask them to reflect on how the courses connect."

Integrative advising aligns with AAC&U's concept of *integrative learning*, defined as "an understanding and disposition that a student builds across the curriculum and co-curriculum, from making simple connections among ideas and experiences to synthesizing and transferring learning to new, complex situations within and beyond campus" (Ferren & Paris, 2015, p. 23). Students cannot do this alone, however. The authors posited that coursework that "form[s] an intentional and coherent program of study" (Ferren & Paris, 2015, p. 4) and pedagogy that requires students to reflect on their learning are the pillars of integrative learning.

Other projects chose to emphasize the coherence of the curricular offerings—reforming the major or general education or creating curricular maps and pathways through the curriculum. Their work emphasized the faculty's responsibility for providing a transparent and navigable curriculum, coursework that was sequenced and progressive, and co-curricular experiences that were integrated with classroom learning.

These two mindsets—emphasis on the students' role in integrating their learning and focus on the faculty responsibility to create a curriculum and other learning opportunities that form a coherent whole—are not mutually exclusive, but as the next section illustrates, most institutions included in this report concentrated their efforts on one or the other. The Teagle Foundation encouraged those institutions that focused on the students' role to expand their efforts to address the structure of the curriculum as well.

Strategies for Achieving Curricular Coherence

Looking across the 12 institutions, five major strategies to achieve curricular coherence can be identified. In this section, each strategy is described and brief institutional examples given. The projects tended to emphasize either the student role in creating curricular coherence or the faculty's work in creating a more integrated and progressive curriculum. The examples are illustrative, and do not reflect all the efforts and activities that the project institutions undertook. Indeed, a number of institutions undertook several interconnected projects under the banner of the Teagle curricular coherence initiative (although not all with Teagle funding).

Curricular Redesign

Redesigning the curriculum generally focuses on general education or the major. In the case of the former, efforts often seek to align with students' achievement of a specific set of learning outcomes for general education. Efforts to redesign the major emphasize clear pathways through the major as well as scaffolding learning so that courses build on each other and students can see their progression.

Redesigning the major. San Francisco State University (SFSU) provided competitive mini-grants to three cohorts of departments and degree-granting programs to undertake curriculum reform in the major to structure student learning in clear and intentional ways. Each cohort was part of a learning community that provided support, resources, and guidance to faculty leading the redesign process in their departments.

Reforming general education. Shenandoah University revamped its general education by identifying four overlapping spheres of learning to replace the previous seven. Faculty have to resubmit their courses to be approved as fulfilling one of the new spheres of learning requirements. Virginia Wesleyan University revised its general education program by simplifying the structure to include three basic components: language proficiency (English composition and foreign language proficiency); a series of three required seminars that build on one another; and a breadth requirement consisting of two courses from Humanities/Fine Arts, Social Sciences, and Mathematics/Natural Sciences.

Curricular Mapping

Curriculum mapping can be applied to general education, the major, or the entire college experience. It can be used to map how courses accomplish various learning outcomes; how students achieve the learning outcomes associated with the

major over the course of their college experience; or how students build skills leading to a high-impact practice² such as a capstone course, study away, internships, or undergraduate research. A map can also be used to help students understand the learning they are achieving and/or to help faculty identify gaps in including certain learning outcomes in a program. In the latter case, curriculum maps should serve as a tool of curricular reform, pointing out areas where changes are needed, either in individual courses or in the structure of the program.

Davis & Elkins College created curricular maps in each program to chart student paths that included a foundational experience in the first-year seminar, mid-career assignments, and a capstone project, with courses at different levels building the requisite skills. Virginia Wesleyan University's departments engaged in curricular mapping designed to create pathways in major academic programs that improve student learning outcomes and guide students towards successful capstone experiences in undergraduate research, study away, or internships.

Identifying Clusters of Related Courses Around an Issue or Topic

This approach involves identifying a series of courses and co-curricular experiences across disciplines that allow students to focus on a single broad theme, such as Peace & Conflict or Food Studies. The cluster of courses and experiences can be linked to advising. Ohio Wesleyan University created the Course Connections Network program, which provided students with a set list of courses around a theme. Oberlin College approved the creation of three concentrations with a fourth planned. Concentrations are interdisciplinary networks of courses around a theme (e.g., book studies) that provide pathways and encourage curricular connections across disciplines in the humanities, natural sciences, and social sciences. Allegheny College created six thematic "concentrations," which morphed into a program aimed at creating new, transdisciplinary majors and minors, still under development.

² "High-Impact Practices (HIPs) are techniques and designs for teaching and learning that have proven to be beneficial for student engagement and successful learning among students from many backgrounds." Examples include first-year seminars, writing intensive courses, diversity/global learning, undergraduate research, internships, and capstone courses (see Kuh, 2008 for the original list of high-impact practices, and Watson et al., 2016 regarding the addition of ePortfolios to the list).

Using Pedagogy, Especially High-Impact Practices (HIPs), to Drive Greater Coherence in the Curriculum

Although HIPs do not by definition promote curricular coherence, they can be used to create scaffolded learning experiences and help students see a developmental progression in their studies. They can also be used to create connections among different courses. Virginia Wesleyan University focused on ensuring that students are fully prepared for three high-impact practices (study away, undergraduate research, and internships) by asking faculty to review how their courses and the major prepare students for these experiences. VWU also holds an annual "Port Day" where students present a capstone experience in their undergraduate research, study away, or internship in panel or poster sessions. Shenandoah University created a "Town Hall" experience that brings together students in different courses and disciplines within the General Education program to address topics such as poverty and gun control from different perspectives in a single culminating event involving students, faculty members, and community members. Davis & Elkins College created "Capstone Day" where students present their senior capstone project orally or through a poster.

Using Advising to Help Students See Connections Within the Curriculum and Among Various Learning Opportunities

A number of institutions aimed to overhaul advising to enable students to articulate their academic and career goals, align their choices of courses with these goals, create their own connections within the existing curriculum, and explicitly link their coursework to their co-curricular activities. They sought to move from a more mechanistic conception of advising involving approving course selection to one that viewed advising as a form of teaching, with the goal of helping students articulate their learning, formulate their goals and aspirations, and to craft a college experience that is both fulfilling and coherent. Denison University developed Advising Circles, one-credit courses for 10 first-semester students led by a faculty member who serves as the students' advisor. Students consider their goals, plan their educational experiences, and learn from each other as well as from the advisor. Allegheny College created Gateway 100 (for first-year students) and Gateway 300 (for upper-division students), one-credit courses that focus on personal exploration and academic and career planning. Oberlin College moved to a new advising system that emphasizes developmental advising, with first-year students organized into cohorts advised by three faculty advisors, one each from the humanities,

social sciences, and natural sciences. Each cohort also has a Peer Advising Leader and uses a new on-line advising tool that incorporates e-portfolio features. Virginia Wesleyan University enhanced its First Year Experience with its Pathway to See Change Program aimed at helping students define goals and discover strengths and interests. It includes three required components facilitated by faculty. Two are sessions with faculty members and one is an online self-assessment exercise.

Although The Claremont Colleges' project focused on strengthening consortial academic collaboration does not fit neatly into the five strategies outlined above, the lessons learned from their work provide useful insights for institutions seeking greater curricular coherence. The Claremont Colleges have now established a cross-campus Office of Consortial Academic Collaboration and is embarking on two new intercollegiate curricular initiatives, one focused on justice education and the other on the data sciences.

Lessons of Experience

Distilling the experiences of multiple institutions undertaking different kinds of change in pursuit of curricular coherence—or any serious change for that matter—risks overgeneralizing or appearing simplistic. Extrapolating lessons learned requires focusing on commonalities rather than differences, in spite of higher education's propensity to underscore the uniqueness of every institution. Indeed, most of the institutions participating in the projects that were reviewed for this report had many shared characteristics. They were private liberal arts institutions, largely residential, with traditional-aged students. They shared an emphasis on teaching and student-centeredness; also, attracting and retaining students had important financial implications. The smaller size of their faculties facilitated communication and collaboration. In a word, their contexts for change shared a number of important characteristics.

At the same time, the experiences of the liberal arts institutions demonstrated some strong similarities to those of the one large public institution, SFSU, part of the 23-campus California State University System. SFSU had a significant number of transfer students, part-time faculty, and a faculty union, as well as policy directives from the system office that influence its curriculum. The experiences and advice contained in SFSU's guide *Doing Curricular Change in a Shared Governance Setting* are equally applicable to other kinds of institutions; with a few tweaks it could easily be taken for the product of a liberal arts college. Similarly, the work of The Claremont Colleges consortium can be translated into a single institution setting or that of a public system. In a word, there are certain academic realities and process issues that cut

across institutions, in spite of differences in institutional mission and culture.

Thus, looking across the institutions reveals useful lessons applicable to a variety of contexts.

Recognizing the Problem and Agreeing on its Contours are Important Up-Front Work

Internally generated change initiatives usually start with the perception that something is not working (a problem) or that it could be working a lot better (an opportunity). Shared recognition of the existence of a problem and agreement on its nature constitute a crucial first step, generally accomplished through faculty retreats, workshops, and abundant conversations.

The problems addressed by the projects varied in nature, ranging from general education curriculum, to advising, to inter-institutional collaboration. Through various forms of discussion and consultation, they obtained sufficient agreement on the existence and nature of the problem to move on to crafting solutions. Some institutions created a working group and charged it with developing alternative solutions. Or they provided general guidance to various units who could choose to develop their own solutions. For example, the project involving Virginia Wesleyan and its campus partners developed a shared understanding of the characteristics of coherent curriculum, elaborated in Appendix C, through a series of faculty workshops.

In the case of The Claremont Colleges, faculty members who were interested in consortial academic collaboration confronted logistical obstacles that discouraged initiatives that would provide greater opportunities for students. Devising solutions grew out of a deeper dive into the problem. The project devoted its first year to cataloging the existing collaborations, meeting with representatives of the collaborating groups, and learning what was working, what was not, and what their needs were.

As institutions defined and began crafting solutions, they saw new opportunities. Rethinking advising enabled institutions to make better use of faculty time while simultaneously helping students. Mapping the curriculum allowed faculty to see gaps in student pathways and make necessary adjustments in the curriculum. At one institution, revising general education yielded a new process for making curricular decisions across its constituent schools.

Academic Reform is a Learning Process for Faculty

Change requires thinking differently in order to do things differently and to do different things. Project leaders and participating faculty and staff were enthusiastic about the opportunities their projects afforded them to get together with colleagues within

their institutions (and their own departments) as well as across institutions to work together to improve the quality of the education they provided and to enhance student success. Many interviewees reported that it was very helpful to see that their institutions were not alone in confronting various problems. They affirmed that the project meetings were consoling, enlightening, and energizing. Several project leaders conducted workshops on other campuses within their multi-institutional projects to share their learning in a deeper way and to facilitate the transfer and adaptation of the experiences of the other campus.

All the institutions supported their change efforts with faculty development opportunities. SFSU was highly intentional about setting up a learning community for each cohort of departments selected to work on curricular revision. Each cohort met five times during its life of one year; cross-cohort meetings were also held. The facilitator provided background readings on various topics, including several on the change process. This rather unusual step provided an additional dimension to the faculty leaders' work—an opportunity to reflect on their own roles as change agents and on the change process they were engaged in. Nothing in the preparation of faculty members or most staff prepare them to think about process issues or the totality of the curriculum; as one project leader at an institution working on general education reform put it, "I did not get my PhD in general education." The SFSU effort resulted in a publication entitled "Doing Curricular Change in a Shared Governance Setting" providing practical advice on the change process in the context of curricular reform.

Similarly, The Claremont Colleges work included background work on the nature of collaboration that informed how project proceeded. Early on, the project director and external consultant produced a paper outlining models and stages of collaboration, "People, Tools and Processes that Build Collaborative Capacity," providing practical advice based on a conceptual framework.

Faculty development focusing on specific skills such as using new technologies can also be essential. Introducing new technological advising tools required multiple faculty workshops and a measured introduction process. Also, institutions seeking to change the role of academic advisors conducted a series of workshops to guide them through the new model.

Additionally, campuses benefited from the perspectives of outsiders. One project built into the proposal engaging a consultant with relevant experience, who was especially helpful in the first year in providing conceptual as well as practical advice. Two projects hired assessment consultants to review what they had accomplished and what else they needed to do. Nationally known experts were

invited to facilitate campus workshops and speak at project meetings that included all the participating campuses. "Outsider" can also be a relative term. Some departments at SFSU invited project leaders from other departments to help them navigate their curricular reform process.

Another form of learning is missteps and outright failures that require changing course. Institutions learned that they could not necessarily adopt technology platforms that had been successfully used by their partner institutions, largely because of compatibility problems. Implementing clusters of thematically related courses required addressing student and faculty workload problems. An institution working on general education revision detoured to review its college-wide learning outcomes. Similarly, one institution, as it worked on advising, saw a need to develop a common language and definitions for institutional learning objectives that would inform the work of the advisors. Another institution abandoned its effort to use e-portfolios as an advising tool, since it was not integrated with its course management system and was an extra step for students, faculty, and staff. Also, it did not seem to meet a perceived need. Some proposals went to the deciding committee only to be rejected for lack of widespread support or competing priorities. Sometimes questions arose about sustainability—would faculty be willing to continue to take on new responsibilities as ongoing additional work? And finally, some initiatives died because they emerged from the provost's office and faculty did not own them. Rarely is a change process linear or predictable; institutions must balance the need to change course with the need to keep forward movement.

Lead With a Carrot and Start With the Willing

Incentives come in many forms. Foundation funding is the exception rather than the rule as a support for change initiatives, and sometimes institutions provide their own funding to provide incentives and support. SFSU and The Claremont Colleges created mini-grant programs offering modest grants to encourage participation and support the work. In a competitive grant program, SFSU supported three cohorts of departments in undertaking curricular reviews. The grant program enabled them to work with the departments in communicating and achieving the goals of the grant and to align the departments' efforts with the outcomes the university wanted to achieve. Similarly, The Claremont Colleges initially provided funding for two sets of initiatives. One was a faculty-led effort to increase academic cooperation at the disciplinary or interdisciplinary level, supporting meetings, external consultant fees, and stipends. The second fund supported improvements in the infrastructure necessary for academic collaboration—

practices, policies, and technologies that remove barriers to curricular collaboration. Both SFSU and The Claremont Colleges published rubrics for assessing the mini-grant proposals to make the initiatives' goals and ground rules clear to the applicants. They worked with the applicants to be sure that the proposed work aligned with their projects' objectives.

Whether or not funding is available, most institutions choose to start their reform initiative by inviting willing faculty members to participate. As one project leader put it, "Get trailblazers out there, build momentum, and you can pull people along." Over the 3-year life of the grants, most institutions increased the number of participating departments or individuals; as the successes became evident, additional groups or individuals saw the benefits of participating.

Although the intrinsic motivation of many faculty to improve the quality of academic programs and student learning can be strong, it may not be sufficient, especially to sustain a new initiative. Lack of other incentives—such as recognition for the work in the promotion and tenure process, help in learning new skills, or the availability of resources for implementation—runs the risk of producing faculty burnout, cynicism, frustration, resistance, or apathy.

Identify and Address Structural Barriers

Some good ideas fail because of processes, policies, and decision-making structures that get in the way. As The Claremont Colleges reviewed existing academic collaborations, they found that information flow, policies, and infrastructure were barriers. Specific obstacles included lack of staff support, finding times for group meetings, knowing what courses will be taught in a given semester, communicating with students across campuses, and interfacing with colleges' registrars and institutional researchers. Thus, engaging in academic collaboration across campuses was seen as a thankless task. As one faculty member noted, "We're always fighting fires; there's no time to just get together to think about program development" (Mashek & Culbertson, 2015, p. 29).

This diagnosis guided the work of the project to harmonize course numbering, bring the registrars into the conversations, and create a course-planning tool to facilitate the work of departments and groups that work across multiple campuses. The tool identified which courses would be taught in the coming year, in how many sections, and in which time slots. In a pilot, the project staff turned the results of using the tool into a spreadsheet that was shared with the faculty and then adopted by other cooperating groups.

As Shenandoah University worked on its general education reform, it found that it did not have a process in place for a curricular proposal that did not emanate from one of its schools. The new general education

curriculum was to apply to all the schools and was the work of a cross-institutional committee. Shenandoah created a new process, complete with a flow chart and ideal timetable for the approval of curricular proposals. The University Curriculum Committee (UCC) became the central player, receiving proposals, vetting them with affected colleges and schools, having the proposers revise as necessary for further review and then a vote by the faculty senate, with ultimate approval by the vice president for academic affairs. The UCC was at the center of the process, approving the proposal at various stages and sending it to the appropriate bodies.

At SFSU, some departments were stymied by lack of agreement on how to proceed, others looked to their by-laws for guidance. Where the by-laws were insufficient or non-existent, the solution was to develop department by-laws to guide their curriculum review process. In another decision-making arena, SFSU developed a fast-track review for "non-substantive changes"—defined as change of degree title, reduction in the number of courses, reorganization of courses within the degree that does not increase the total number of units, and revision of pre-requisites. Substantive revisions, which include discontinuance of a program or revisions that increase the number of units in the major, remains a more elaborate process.

Consider Sustainability Early On

Not every innovation turns out to be sustainable. As noted above, some institutions found they had to change course or abandon seemingly promising ideas. Although not all obstacles can be anticipated, it is worth engaging in serious thinking upfront about what happens after foundation funding expires, or as is more likely to be the case for most institutions, how things might play out a few years down the road. The Claremont Colleges project team and the deans began consideration of a central coordinating mechanism at the mid-point of their three-year project, which led to the creation of a pilot Office of Consortial Academic Collaboration. And indeed, in the course of its work, the project identified key ingredients for sustainable change—vision, incentives, skills, resources, and a plan—and the consequences when one of the ingredients is missing.

SFSU linked its Teagle-funded work to its ongoing cycle of program reviews and to the system-wide Student Success Initiative, which provided one-time funding for departments to develop strategies to address retention and timely graduation. The participation of 18 departments in the Teagle project began a culture change at SFSU that fostered open discussion about departmental curriculum, focused on evidence and increasing student success. Both the processes designed by the departments and the culture shift created by the faculty learning community should facilitate future efforts.

Some institutions tied their reform initiatives to other changes to which they were already committed. Virginia Wesleyan, through its Quality Enhancement Process as part of its Southern Association of Colleges and Schools re-accreditation, established the “Lighthouse” to combine its study-away, internships, and undergraduate research under one roof. An important part of its Teagle work was ensuring the success of the programs under the Lighthouse umbrella through curricular reform.

Collaboration Is Difficult Work

In their paper on collaboration that grew out of The Claremont Colleges’ work, Mashek and Nanfito (2015) stated:

[E]ffective and efficient collaborations can be excruciatingly difficult to develop, implement and sustain. Work with multiple stakeholders requires that facilitators help to create clear expectations to foster information sharing, to ensure follow through on problem-solving, and to track progress. Facilitating collaboration requires organizing all stakeholders around a common purpose that is congruent with desired outcomes and intersecting ambition. This is hard, slow-moving, highly iterative work.

Adapting Arthur Himmelman’s “continuum of collaboration,” they described successive levels of working together, starting with networking, moving through coordinating, cooperating, and finally collaborating (Mashek & Nanfito, 2015, p. 2). They noted that each of the stations on the continuum may be appropriate for a particular activity and that they build on one another. Curriculum reform, or any change that goes deeply into the academic enterprise, requires collaboration, which in turn requires “the capacity to share resources, turf, and leadership” (Mashek & Nanfito, 2015, p. 3). It is easy to see how struggles for enrollments, resources, and philosophical differences can get in the way of collaboration. The participating institutions used various strategies to address the obstacles to collaboration, including creating a shared vision for the work, harnessing the energy of faculty champions, identifying skillful project leadership, bringing in external voices, and supporting institutional leaders. Collaboration requires considering the common good and the benefit to students as values that override the “my students” and “my classroom” mentality.

Many Paths Can Lead to the Same Outcome

If there is any metaphor that is an anathema in academe, it is “one-size-fits all.” Institutions prize their differences, as do schools and departments within institutions. Direct assaults on departmental autonomy

are likely to be unproductive at most institutions. Thus, project institutions took care to identify shared goals and desired outcomes but at the same time gave units and departments the freedom to create their own paths to achieving them. Thus, SFSU was clear about what it wanted departments to achieve through curricular redesign, and placed some parameters around the work, but encouraged departments to define their unique issues and craft appropriate solutions. The Claremont Colleges started with existing collaborations, building out from many different models already in place. Virginia Wesleyan had departments create their own curricular maps, and only after several were developed did it create a template to guide future maps. Davis & Elkins proceeded in a similar fashion. Shenandoah required institutions to resubmit their courses to count as general education, but did so by providing the outcomes associated with each learning domain to guide the resubmission process.

Context Matters

Change initiatives do not happen in a vacuum. Project institutions experienced all kinds of events that shaped the course of their work, sometimes in unexpected ways. A strategic planning exercise involving the entire institution caused one institution to hit the pause button on its project work. Turnover in project leaders in a number of institutions slowed the work. When the architect of the innovation (and of the grant proposal) left one institution a year into the project, the vision for the project was less powerful and the institutional energy behind it diminished for a while. Shortfalls in enrollment or budget cuts refocus the attention of the campus community. Thus, the course of any reform effort is subject to the winds that blow across campus, and rarely proceed in a linear fashion.

It Is Likely That Reform Efforts Will Be Additive in Terms of Human and Financial Resources, Unless There Are Specific Ground Rules

It is much less contentious to add people (or add to existing workloads) and money to support new initiatives than to decide how the ledger will be balanced with subtractions. And indeed, starting a reform effort with resource issues—rather than quality issues—front and center can be an invitation to resistance, turf battles, and negative publicity. Some institutions navigated this terrain by using curricular mapping to help faculty see redundancies in the course offerings that led them to streamline their offerings. In soliciting proposals for departmental efforts at curricular redesign, SFSU shared with applicants the rubrics that comprised its scoring sheet. The first one specified that the proposed effort had to significantly redesign the curriculum’s structure or

goals, rather than simply adding new courses or concentrations. Overall, however, there was little evidence that the projects would be either cost-neutral or cost-reducing in the long run.

In Conclusion: Eyes on the Prize

There is no single or easy path to curricular coherence. The institutions reviewed for this report took different approaches, with varying degrees of success and impact on curricular coherence. Some were cost-neutral; others added costs. Few institutions reviewed took a hard look at the architecture of the curriculum. But the good news is that all the participating institutions had their eyes on the prize—they were committed to improving student learning and the quality of the student experience. They found ways to collaborate and to put the students at the center of their efforts. As the competition for students becomes more intense for many private institutions and the cost pressures more intense for all, the need for the curriculum to be easily understood, for learning to be progressive throughout the undergraduate experience, and for the pieces to clearly connect will be even more urgent. There is still much work to be done.

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