Cornell University: Ripple Effect Mapping

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Cornell University, founded in 1865, is a private research university and the land-grant institution in the state of New York. Serving over 24,000 students, the Fall 2019 student enrollment for undergraduate students lists 46% as minority student status. With a mission to “discover, preserve and disseminate knowledge, to educate the next generation of global citizens, and to promote a culture of broad inquiry” the focus of education is upon public service to the people of New York and the world. Cornell University is guided by the following values, adopted in 2019, to guide the fulfillment of an equitable and inclusive atmosphere including: purposeful discovery, free and open inquiry and expression, a community of belonging, exploration across boundaries, changing lives through public engagement, and respect for the natural environment.

At Cornell University, many of us believe that equity-minded assessment practices should invoke participatory practices aimed at validating diverse stakeholder experiences. They should be aligned with program goals and student learning outcomes and be useful to all stakeholders. Equity-minded assessment practices explicitly name issues of power and actively work against systems of oppression; they should be easy to understand and easily accessible to all stakeholders; and the student or participant should remain at the center of the assessment. This ensures that practices are designed with appropriate language for the population, acknowledge students’ differences, and are appropriate for measuring defined learning outcomes in order to improve learning for all students (Montenegro & Jankowski, 2017). To the extent possible, participants/students should be engaged throughout the entire assessment process: identifying learning outcomes; designing programs to achieve them; identifying ways to assess those outcomes; participating in the assessment; understanding and analyzing the results; and recommending how to use the results to improve learning. In order to implement such efforts, professional development and alternative approaches to examining practices are required.

To support the professional development of Cornell staff, Leslie Meyerhoff teaches Assessment 101, which is a semester-long, non-credit course that focuses on student learning outcomes assessment. Day 2 of the course focuses on equity-minded assessment, which is then incorporated into all subsequent class sessions during class discussions. Participants have included staff from several colleges (Engineering, Industrial and Labor Relations, Law School, Arts and Sciences), other administrative units (Office of Academic Diversity Initiatives, Center for Teaching Innovation), and student affairs. In our efforts to be more intentional in our use of equity-minded assessment practices, we continue to look for methods and approaches to advance this goal. The focus of this case study is on one such method we have been working with, the use of Ripple Effect Mapping as an alternative means to examine practice by not only learning about equity-minded assessment but also elevating the student voice and experience.

Please Cite As:

Ripple Effect Mapping (REM) is a group participatory evaluation method that engages program and community stakeholders to retrospectively and visually map chains of effects resulting from a program or complex collaboration (Chazdon, et. al., 2017). This method is appealing because it specifically foregrounds an iterative and inclusive process. REM employs four core elements: (1) appreciative inquiry; (2) a participatory approach; (3) interactive group interviewing and reflection; and (4) ‘radiant thinking,’ also known as mind mapping (Chazdon, et. al., 2017). It builds on the idea that evaluation and assessment can and should go beyond counting things to identifying material outcomes. It also holds that we can only identify these impacts by including stories of diverse stakeholders and giving them equal validity in the analysis process. While we are still discerning its limitations, REM holds the promise of advancing the goal of equity-minded assessment through its background, methodology, and products.

REM emerged in Cooperative Extension’s Community Development program area as an approach to meet new and intensifying evaluation and assessment expectations for community development programs and organizations. REM has been well received within the field for the opportunities it presents for deeper, richer, outcome analysis and, in turn, reflective program development, particularly when coupled with other evaluation methodologies. At Cornell, we have broadened the application of REM to include community-engaged learning and research initiatives, student services, and community service. In these new areas, we have appreciated the ways that the method helps us better understand—from the perspective of students’/participants’—the impacts and ensuing ‘ripples’ resulting from their participation in programs.

Using a combination of assessment practices that includes Ripple Effect Mapping, we are able to generate a much more comprehensive picture of the student/participant experience than we would otherwise. Some of the other data-gathering practices for students can include participant interviews, course evaluations, GPA tracking, time-to-degree, engagement in student organizations/activities, and visits to campus support services. In addition, for the quantitative data that are collected, they are disaggregated by population in order to understand the experiences of marginalized or minoritized communities of students.

A group of staff from student affairs began offering Ripple Effect Mapping (REM) as a method of program assessment in January 2018. This followed a 2-day workshop offered at the University in November 2017. The appeal of REM is that it enables an organization to begin to understand its impact on participants as well as the larger community in which participants are based and interact (how it ripples out beyond those initially involved) through a participatory process where participants define those broader impacts. During the spring semester 2018, these staff facilitated REM sessions with participants from eight different programs to help them understand the impact of the programs on participants as well as the larger community.

**Application of Ripple Effect Mapping in an Academic Advising Course**

In the fall of 2017, the College of Arts & Sciences launched six sections (10 students per section) of a new academic advising course for incoming first-year students. As part of the design, Bonnie Comella, Director of Student Services in the College of Arts & Sciences, developed an assessment plan that included Ripple Effect Mapping, and she invited the team of REM facilitators to lead that process. The intention of the project was to learn whether the course achieved its intended outcomes: (i) creating a
sense of belonging for students, (2) introducing students to Cornell resources and support structures, (3) developing stronger relationships between students and faculty advisors, and (4) helping faculty members gain a greater understanding of the student experience. To do this, the team offered two REM sessions: one for student participants, and one for the course instructors.

In each session, facilitators guided participants through an appreciative inquiry exercise. As an example, the students were asked to individually reflect on and answer the following prompts:

**Students**
1. Talk about how the seminar affected your transition to Cornell.
2. Tell a story about how being in the advising seminar impacted you in other ways.
3. What was the most surprising thing you learned in your advising seminar group?
4. Tell us about a time when you felt especially supported by your advisor.
5. Have you shared what you learned in your advising seminar with anyone?
6. What new resources do you have because you participated in the advising seminar?

After a period of personal reflection, the participants were then asked to share their story [response to a prompt] with another participant, through paired interviews, during which each participant exchanged ways in which their participation in the course impacted them. All participants were then brought back to the full group, at which time each person was invited to summarize their impact story with the group [or have their partner speak on their behalf], while a facilitator mapped the story on a wall visible to all participants. Central to this visual representation was the articulation of ways in which program activities resulted in an initial impact and, in turn, rippled out, with subsequent impacts beyond those immediately impacting the participant. After each participant shared a story, the other participants were invited to share additional details that either helped further explain that impact, its ripples, or other ones related to it. In this way, the breadth of program impacts, as experienced by participants, was articulated and documented. Following the mapping exercise, participants were engaged in the analysis of the data, as facilitators asked them to examine the map and share key takeaways, including both what was on the map as well as anything notably absent from it.

While many of the hypotheses about program impact were substantiated during the two REM sessions, an unexpected outcome was how much more the course benefitted not only the students who participated in it and the faculty who taught the course, but also friends of the students in the course. In other words, we learned the course was having a much broader impact than we ever anticipated. In one seminar class, students visited the Johnson Art Museum and painted tiles together. One of the students posted a photo of his tile on Snapchat, and friends asked where he got it. When they learned about the program at the museum, they visited it, too. Another student described attending a class at the library and learning about the many resources available to support their learning, which led him to share that knowledge with his peers. Our REM findings were combined with grade and other academic information to assess effectiveness of this course on setting students up for success as well as creating a more even starting place for all students. In addition, results were used to lobby the College for additional funding to support expanding the course to more incoming students. The funding request was approved, and the program was scaled up to almost 900 students in the fall of 2019. The beauty of this methodology is that it (1) invites all types of learners to participate because it incorporates individual, group, written, and oral involvement; (2) incorporates all participants’ voices into the information collected; and (3) doesn’t weigh any voices more than others.
Future Directions

A hands-on workshop on Ripple Effects Mapping was offered to the campus community April 1, 2019. Our goal was to expand the community of practitioners and the reach of the REM approach by teaching more people how to do it and inviting them into conversation with us. Following that training, we created a listserv for facilitators to communicate with each other, recruit support for REM projects, and share new information. REM sessions are now being offered in a variety of locations across campus as well as within the community. We are also currently exploring the ways REM can be implemented remotely so that people who are not able to come together physically can still participate in a warm and engaging virtual format. In particular we will be launching a Zoom-based REM session in spring 2020 that will explore the impact of a state-wide garden-based learning program entitled Seed to Supper. We see great promise in utilizing REM as a tool for understanding the impacts of Cornell’s many engaged learning and research initiatives. Remote sessions present an important opportunity to work with community-based partners across the globe.

In addition to increased interest in and use of REM among programs across campus, we are now receiving requests from community-based programs with whom we partner to achieve our tri-fold mission of teaching, research, and extension/outreach within the university. Part of our goal in expanding campus-based expertise with the Ripple Effect Mapping methodology is to create additional capacity for honoring the requests of our community-based partners and building external capacity for this unique tool as well. For example, colleagues with Cornell Cooperative Extension’s (CCE) administrative team at the University participated in the REM workshop we held in November 2017, as did county-based association Youth Development program leaders and educators. As a result, REM is now being utilized by association programs to understand and strengthen program outcomes within CCE. We anticipate that as other program leaders and staff learn about the methodology, it will be adapted by others throughout the system in the years ahead.

Final Reflections

What is so exciting to us is the way this method is iterative and intuitive. There are some fundamental building blocks necessary for a process to be authentic ‘Ripple Effect Mapping,’ but beyond the bounds of those basic methodological elements, REM facilitators are encouraged to adapt, augment, and refine the methodology to meet the needs of each unique context (Chazdon, et. al., 2017). We have also been deeply impressed with the way this method quickly identifies ripples that are immediately useful in the program assessment process.

Every time we discuss this approach with colleagues, they are eager to learn more or to invite us to facilitate a Ripple Effect Mapping session with their groups. We think we have identified a gap in assessment practice for which REM offers a remedy. REM provides us and our colleagues with a systematic process/methodology for engaging program/project participants about their experiences with the program or service in a way which empowers them to define outcomes. From our perspective, understanding outcomes as defined by those we serve is a critical complement to the many traditional evaluation methodologies we employ, almost all of which are designed, framed and, in turn, biased, by the perspective of project leads. This is not to discount the importance of assessing program outcomes defined by those designing a program but it is a way to determine whether those outcomes are being achieved from the vantage of participants. To be clear, it is not that the perspective of project leads is not important to include in an evaluation, in fact, we think leadership perspectives are important to
understanding outcomes; however, we also believe that providing the space for program participants to speak to outcomes as they define them adds an entirely different and hitherto missing dimension to our collective understanding of outcomes, one that by virtue of its participatory and inclusive approach is more equitable and socially just.

We believe other institutions can use this equitable assessment practice in combination with other tools to inform their own thinking about program evaluation and student learning assessment. Appreciative inquiry, participatory methods, group reflection and mind mapping all provide concrete tools for grounding a student-centered approach.

References


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Equity Case Studies

The National Institute for Learning Outcomes Assessment, the Council for the Advancement of Standards in Higher Education (CAS), and Campus Labs, in collaboration with the field of assessment in higher education, have undertaken a series of case studies focused on providing short, instructive examples focused on equitable approaches to assess student learning. The cases provide lessons learned that are widely applicable, and emphasize collaboration across the institution, specifically between academic and student affairs.

NILOA is a research and resource-development organization dedicated to documenting, advocating, and facilitating the systematic use of learning outcomes assessment to improve student learning. NILOA supports institutions in designing learning experiences and assessment approaches that strengthen the experience of diverse learners within a variety of institutional contexts. NILOA works in partnership with a broad range of organizations and provides technical assistance and research support to various projects focused on learning throughout the U.S. and internationally. Learn more at www.learningoutcomesassessment.org.

Leading the way for over 40 years, CAS is a consortium of professional associations in higher education that promotes the use of its professional standards for the development, assessment, and improvement of quality student learning, programs, and services. CAS reflects good practices and promotes intra-campus collaboration among its over 40 collaborating professional associations representing over 115,000 professionals in higher education. Learn more at www.cas.edu.

Campus Labs offers integrated software and cloud-based assessment tools for higher education. Their work focuses on empowering and transforming colleges and universities through the use of strategic data insights. Campus Labs offers a comprehensive set of solutions for over 1,400 Member Campuses. Learn more at www.campuslabs.com.
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