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Theory of Change: A Theory-Driven Approach to Enhancing Instructors' Reporting on Classroom Assessment (iROCA)

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Intersection: A Journal at the Intersection of Assessment and Learning

Early View

Abstract: This article examines a mid-sized teaching university's (MTU) institution-led assessment (ILA) model and addresses how institutions can effectively guide academic assessment of student learning outcomes. For this article, institution-led assessment (ILA) refers to a coordinated model in which the institution takes an active role in designing, supporting, and aligning assessment infrastructure, distinct from campus-wide assessment (CWA), in which individual programs operate largely independently. A Theory of Change (ToC) framework guided the design and implementation of iROCA (Instructors Reporting on Classroom Assessment), a five-year initiative focused on embedding Institutional Student Learning Outcomes (ISLOs) into faculty workflows, implementing assessment technology, project management software, and establishing the infrastructure necessary for a subsequent five-year Program Student Learning Outcomes (PSLO) assessment cycle. The article presents ILA as a scalable and sustainable practice for college campuses and demonstrates that when institutions take an active coordinating role, assessment participation increases and practices become more coherent. The article concludes with evidence of impact and recommendations for future research.

Keywords: *institution-led assessment, campus-wide assessment, theory of change, iROCA, continuous improvement.*

Theory of Change: A Theory-Driven Approach to Enhancing Instructors' Reporting on Classroom Assessment (iROCA)

The institution's role in assessing student learning outcomes has long been a critical topic in higher education (Bers, 2008; Thomas et al., 2025). Yet a specific form of institutional involvement, what this article terms institution-led assessment (ILA), remains underexplored in the literature despite its significant promise for improving educational quality and coherence. For the purposes of this article, ILA is defined as a coordinated assessment model in which the institution takes an active, structured role in designing frameworks, deploying support resources, aligning outcomes across levels, and monitoring implementation, while distributing the responsibility for execution to faculty and programs. This definition is distinct from the broader concept of campus-wide assessment (CWA), in which the institution may endorse or even require assessment activities but leaves the design, execution, and interpretation largely to individual departments or programs. Even institutions that describe their

approach as “campus-wide” may in practice have highly decentralized, inconsistent systems, and the degree of institutional involvement in scaffolding and supporting that work varies enormously. Proponents of both ILA and CWA would agree that comprehensive data collection on learning outcomes supports informed decision-making and strategic planning. The critical difference lies in how that data is generated, standardized, and used. Under CWA, data quality and interpretability often depend on the initiative of individual programs; however, under ILA, institutional infrastructure actively enables consistency and comparability. This distinction has direct implications for accountability, resource allocation, and the sustainability of improvement efforts.

A central challenge in both models is engaging front-line actors (i.e., teaching faculty) alongside other campus constituents such as institutional research, instructional technology, and faculty development (Heinrich et al., 2021). ILA addresses this challenge by creating deliberate structures that make such engagement routine and supported rather than optional and ad hoc.

This article introduces and operationalizes ILA as a framework that centralizes coordination while distributing execution. It addresses the question: How can institutions effectively guide academic assessment of student learning outcomes? We begin by defining and comparing ILA and CWA, then present MTU's rationale and methodology for developing the model. We describe how the iROCA was implemented as a three-year pilot and five-year initiative focused specifically on Institutional Student Learning Outcomes (ISLOs), a deliberate first phase designed to introduce assessment protocols, implement the use of technology and software, build faculty capacity and expertise, and lay the infrastructure for a subsequent five-year Program Student Learning Outcomes (PSLO) cycle. The article provides evidence of impact and concludes with implications for future research and practice.

Literature Review

Institution-led Assessment vs. Campus-Wide Assessment

Before examining the differences between ILA and CWA, it is important to acknowledge that in existing literature, these two terms are often treated as overlapping or even synonymous. Both refer broadly to coordinated efforts to assess student learning across an institution, and both involve some combination of central administration and academic programs. The distinction we draw here is not about whether assessment happens at scale, but about the depth and nature of institutional involvement in making it happen.

Campus-wide assessment (CWA) has been the dominant model in higher education for several decades (Banta & Palomba, 2015; Suskie, 2018). In a CWA model, the institution typically sets broad expectations or requirements for assessment (e.g., every program must assess its learning outcomes and submit an annual report) but leaves the design, methodology, and interpretation largely to individual departments or programs. Assessment offices in this model often function primarily in advisory or compliance-monitoring roles. The result is that assessment practices can vary widely across campus, with some programs developing rigorous and meaningful systems and others doing the bare minimum necessary for accreditation. As Banta and Palomba (2015) note, the quality of CWA depends heavily on the culture and capacity of individual programs rather than on institutional scaffolding.

Importantly, decentralization is not an inherent feature of CWA, but it is a common practical outcome when institutional support is limited. When programs are left to design their own assessment processes with minimal guidance or resources, fragmentation and inconsistency tend to follow (Jankowski, et al., 2018; Spence, 2022). This was precisely what MTU experienced prior to the iROCA initiative, as described in the Case Background section below.

Institution-led assessment (ILA), as conceptualized in this article, represents a different level of institutional engagement. ILA is characterized by: (1) centralized coordination of assessment processes, timelines, and reporting structures; (2) distributed responsibility for assessment execution and interpretation across academic programs; (3) institutional provision of templates, training, and technical support; (4) shared accountability between central administration and academic units; and (5) systematic integration of assessment into program review and improvement cycles. In contrast to CWA, in which the institution sets the mandate and programs determine the method, ILA involves the institution actively co-designing the infrastructure through which assessment happens.

This framework addresses a gap identified by Jankowski et al. (2018), who posits the need for assessment approaches that are neither entirely top-down nor completely bottom-up, but that instead create productive partnerships between institutional assessment offices and academic programs. ILA is neither purely prescriptive nor purely permissive. Rather, it is what might be called “structured autonomy,” where programs retain meaningful discretion over their disciplinary content and pedagogical approaches, but within a framework that ensures consistency, comparability, and coherence across the institution.

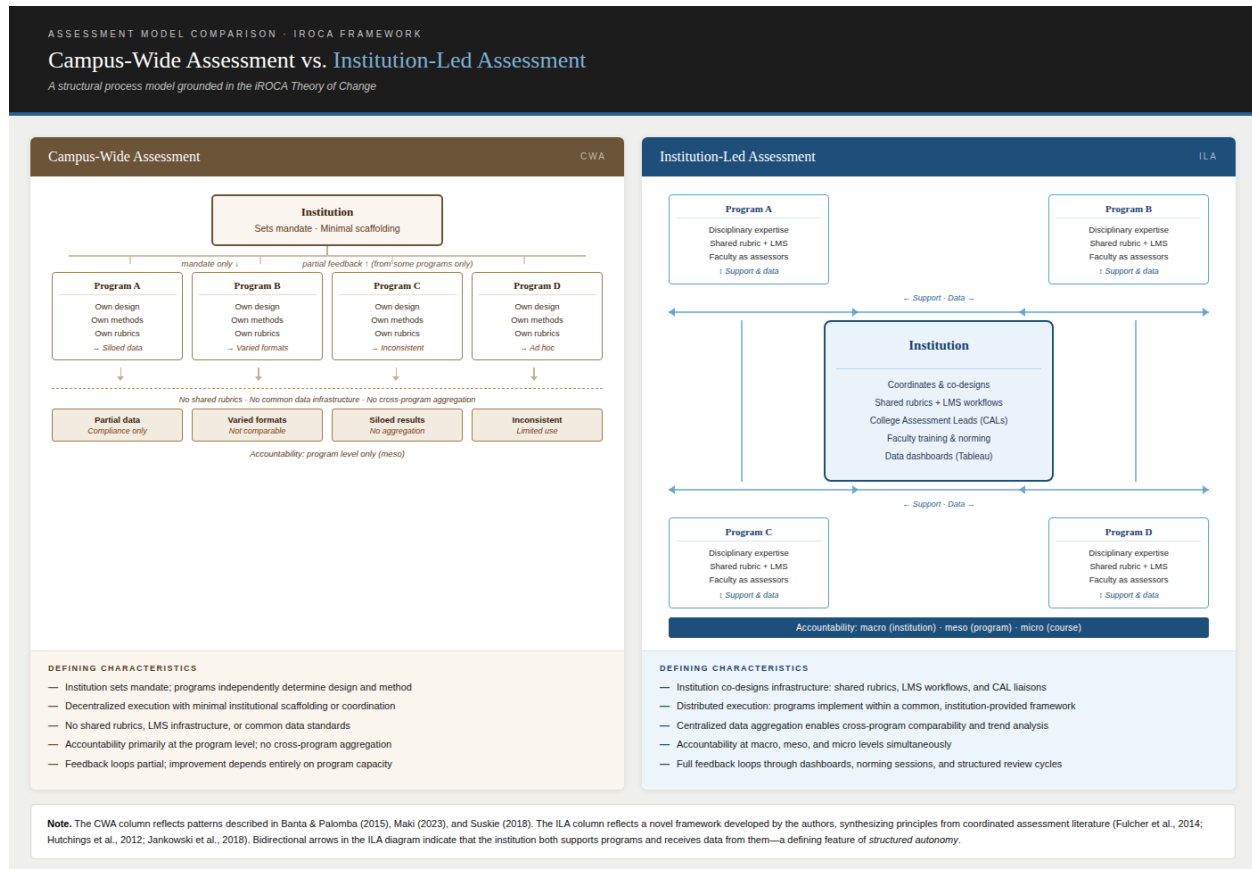
One frequent question about ILA concerns its relationship to specialized accreditation. Programs accredited by bodies such as ABET, AACSB, or CAEP have their own assessment requirements and timelines, which may not align neatly with institutional reporting cycles. MTU addressed this by designing iROCA as a parallel, not competing, system. During the three-year pilot ISLO phase, iROCA focused on a set of institutional-level competencies (i.e., written communication, critical thinking, and quantitative reasoning) that cut across disciplines and could be assessed using a common criterion-referenced rubric applied to discipline-specific assignments. This approach allowed programs with specialized accreditation requirements to fulfill those requirements through their own processes while still contributing data to the institutional system. The ILA model thus accommodated disciplinary variation without sacrificing institutional coherence.

Figure 1 summarizes key structural differences between CWA and ILA across several dimensions. These distinctions are elaborated in subsequent sections of the article. Readers should note that this table reflects a typological contrast and that institutions may blend elements of both approaches, and the goal is not to suggest that CWA is without value, but rather to clarify what is gained when institutional involvement moves from endorsement to active co-construction.

THEORY OF CHANGE: A THEORY-DRIVEN APPROACH TO ENHANCING INSTRUCTORS' REPORTING ON CLASSROOM ASSESSMENT (IROCA)

Figure 1

Structural Differences Between Campus-Wide Assessment and Institution-Led Assessment



Both CWA and ILA are ultimately oriented toward the same goal--fostering a culture of meaningful, systematic assessment that serves student learning and institutional improvement. The distinction is not a matter of which model cares more about assessment quality, but of how institutional resources and structures are deployed to support that quality. An ILA approach, as described in this article, goes beyond setting expectations to actively co-building the conditions, (i.e., technological, relational, and procedural) that make high-quality assessment possible at scale (see Fulcher et al., 2014, 2025). This requires the active participation of multiple key actors at each stage of the assessment cycle (see Figure 2), creating shared responsibility and ensuring that diverse perspectives and expertise contribute to evidence-based improvement (Abduldaquer et al., 2023; Paretti & Powell, 2009).

Figure 2

An ILA Assessment Cycle

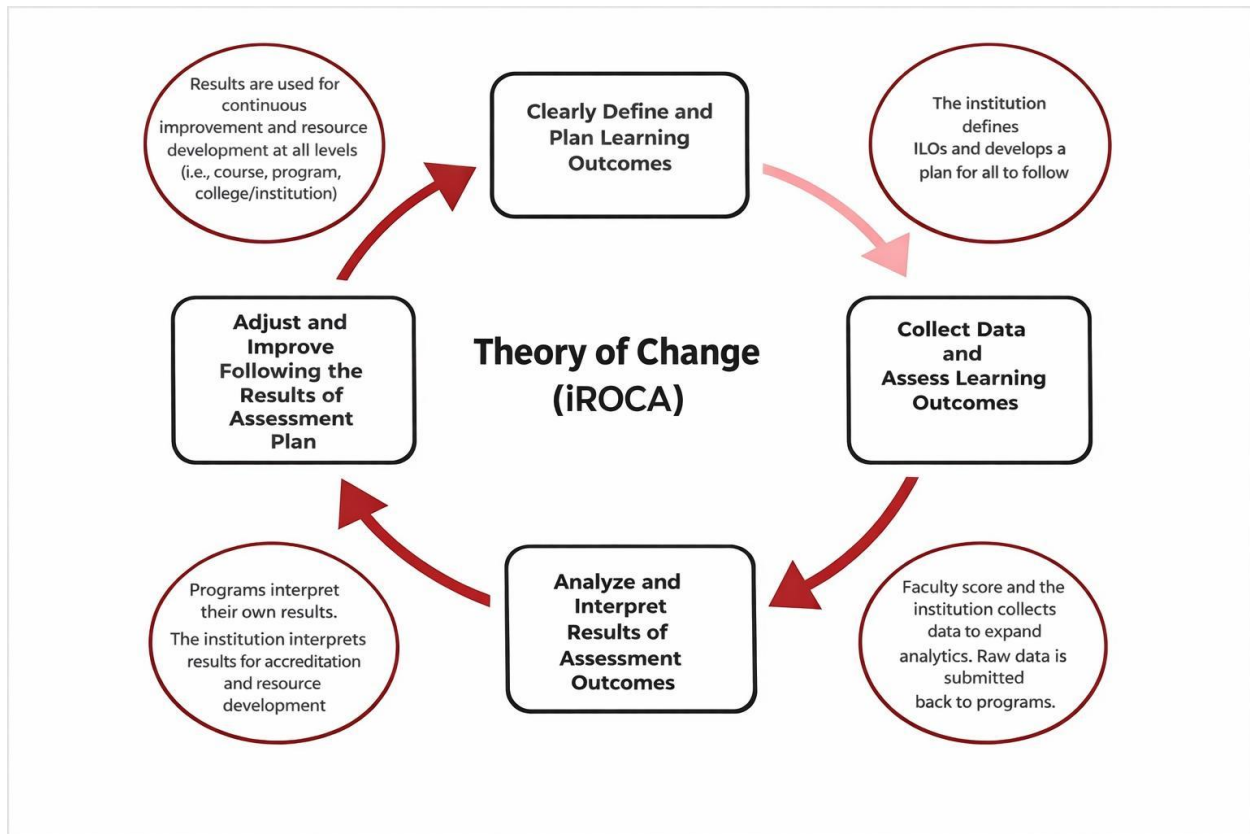


Figure Note. ILA assessment model adapted from Fulcher et al. (2014) and applied to MTU's assessment context by the authors. Each phase of assessment involves multiple institutional actors whose coordinated contributions are represented by the ellipsoids in the figure.

As Figure 2 illustrates, the ILA cycle at MTU is not simply a reporting cycle; it is a participatory process in which institutional actors at multiple levels contribute to assessment design, execution, data interpretation, and improvement planning. This multi-actor structure is what distinguishes ILA from a compliance-monitoring model and gives it the capacity to generate genuine improvements in teaching and learning.

Theoretical Framework

Theory of Change (ToC) serves as the theoretical foundation of the iROCA intervention. Popularized by Weiss (1995), ToC provides a conceptual framework for visually mapping the processes and pathways that connect inputs and activities to intended outcomes (James, 2011; Jones & Rosenberg, 2018). Weiss defines ToC as the “how” and “why” of an initiative, not merely what it does, but the assumptions and mechanisms through which it is expected to produce change. While ToC is not a

sociological or psychological theory in the manner of Cognitive Complexity or Theory of Planned Behavior (Reinholz & Andrews, 2020), it has been widely adopted across evaluation, health, public policy, and educational contexts for its effectiveness in mapping complex change processes (Mason & Barnes, 2007; Rogers, 2014).

ToC draws on multiple intellectual traditions, including Chen's (2014) theory-driven evaluation approach, Reinholz and Andrews' (2020) application of change theory in higher education, and seminal work by Lewin (1951) and Lippitt et al. (1958) on planned and organizational change. These foundations provide ToC with a systematic approach to articulating logical relationships among its core elements, helping researchers and practitioners identify assumptions, anticipate barriers, and develop targeted strategies.

According to Cobb et al. (2003), ToC allows evaluators to articulate how a process will unfold, supporting systematic interrogation, assessment, and revision of an initiative. As a methodology for planning evaluation (Weiss, 1995) and intervention development (De Silva et al., 2014), ToC functions much like a process model, representing an initiative's components and causal pathways to support large-scale change. Throughout this article, we use the term "process model" to describe how inputs, activities, determining factors, and outcomes interact in the iROCA initiative. This process model is informed by logic model principles (AECF, 2004, 2022; W. K. Kellogg Foundation, 2006) but extends beyond the traditional logic model format to make causal mechanisms and contextual conditions explicit.

Developing a ToC requires attention to five essential elements: (1) inputs, (2) activities/interventions, (3) outputs, (4) outcomes, and (5) impacts. We begin with a thorough examination of context, including obstacles, actors, best practices, goals, and intended outcomes. The primary aim in this article is to explain how the iROCA initiative operates in practice, focusing on the actors and mechanisms involved, not on the intervention's every procedural detail. In the pages that follow, we present the case for change and describe the steps taken to build an institution-led assessment infrastructure at MTU.

Methods

Case Background

Prior to the COVID-19 pandemic, MTU's assessment model relied on a decentralized structure in which each academic program appointed a faculty assessment representative who received three units of reassigned time annually to oversee program-level assessment. This structure aligned with both institutional expectations and accreditation requirements while preserving program autonomy. However, beyond monthly check-ins with the campus assessment director, no standardized institutional framework existed, leaving implementation largely to individual programs. The result was significant variability. Assessment practices lacked consistency, comparability, and coherence across the university. At the time, approximately 35 programs were engaged in some form of assessment reporting, though the depth and quality of that engagement varied widely.

The COVID-19 pandemic further destabilized this already fragile model. MTU's Office of Academic Assessment and Program Review was relocated to the Office of Institutional Research, and reassigned

time for faculty assessment representatives was eliminated due to budgetary constraints. Participation dropped sharply. Fewer than one-third of original representatives remained active, leaving fewer than 12 programs with consistent faculty-led assessment involvement. Some associate deans assumed assessment responsibilities in an ad hoc manner, further eroding the coherence of the system.

A subsequent needs assessment revealed widespread inconsistencies in data collection methods, inadequate learning outcome tracking, and persistent misalignment between assessment results and instructional practices. With no unified system in place, each program operated independently, producing as many as 50 different assessment approaches across campus. Some programs assessed only a single instructor's course; others sampled selectively or not at all. These fragmented efforts yielded incomplete and incomparable data, severely limiting MTU's ability to identify learning trends, evaluate program effectiveness, or implement large-scale improvements.

The fundamental limitation of the prior model was its structural overreliance on reassigned time. Concentrating assessment responsibilities within a small group of faculty, rather than embedding assessment as a routine pedagogical practice shared across the institution, made the system vulnerable to assessment leadership turnover, budget cuts, and shifting workloads. When those conditions changed, continuity and knowledge transfer suffered. Assessment was reduced, in practice, to a compliance exercise--something done because it was required, not because it was understood as a tool for improving teaching and learning.

These challenges made clear that what MTU needed was not simply a better compliance system, but a fundamentally different approach to assessment; one that embedded assessment into faculty work, standardized data collection without eliminating faculty autonomy, and built institutional capacity that would not collapse when individual participants left or circumstances changed. This was the rationale for iROCA. The iROCA initiative was designed as a five-year pilot first phase with a specific and deliberate scope to (1) focus on Institutional Student Learning Outcomes (ISLOs), (2) introduce and normalize the technology infrastructure needed for systematic data collection and analysis, and (3) build the faculty capacity and institutional culture that would be prerequisites for a subsequent five-year Program Student Learning Outcome (PSLO) assessment cycle. By starting with ISLOs, common cross-disciplinary competencies that applied to all programs, the initiative was able to establish a shared framework and common processes before introducing the greater complexity of program-specific outcome assessment.

Backward Design Approach

MTU began its redesign with a thorough analysis of its existing assessment context using a backward design approach (Wiggins & McTighe, 2005), which prioritizes intended learning outcomes as the starting point rather than existing activities or processes. This method ensured that the intervention was grounded in clearly defined goals rather than disconnected activities. As Woolcock (2022) emphasizes, understanding context is essential for meaningful process change; therefore, a half-day retreat with assessment representatives from fifteen programs allowed MTU to collaboratively identify desired systemic changes and the steps required to measure and achieve them. Faculty articulated both intended and unintended outcomes, leading to a structured mapping process that linked desired

changes to specific actions and measurable tasks (Beach & Pedersen, 2019). A key finding from these conversations was the widespread need for stronger administrative guidance and institutional support, a critical gap in existing assessment efforts that aligned directly with the shift from CWA to ILA.

Following the retreat, MTU conducted a comprehensive external review of assessment practices at fifty-three institutions of higher education, including thirty-five regional universities and eighteen national research universities, selected purposively to identify models of institutionally-led, procedural assessment.

Research Samples

Of the thirty-five regional universities, twenty-three were drawn from MTU's university system because of comparable institutional profiles, student demographics, and state accountability requirements. The remaining twelve were identified through targeted web searches using terms such as "assessment offices," "learning outcomes assessment," "program assessment," and "assessment cycle." The eighteen national universities were selected randomly from institutions with publicly accessible assessment resources.

The review examined institutional websites for: (1) organizational structures for assessment coordination, (2) publicly available assessment policies and procedures, (3) standardized reporting forms and templates, (4) documented assessment workflows and timelines, and (5) evidence of centralized versus decentralized assessment models. Two reviewers used an informal protocol to classify practices along a continuum from fully decentralized (faculty/program-led with minimal coordination) to centrally coordinated (institutionally-led with distributed implementation).

Key Findings

The review found that 94% of institutions employed decentralized reporting models in which departments or programs conducted assessment independently with minimal coordination, standardized processes, or centralized support. Assessment offices, where they existed, typically functioned in advisory or compliance-monitoring roles rather than as active coordinators of integrated assessment systems. This finding confirmed that truly institutional-led assessment remains rare in higher education, and that MTU's aspirations represented a meaningful departure from prevailing practice.

Two institutions emerged as notable outliers. First, an MTU sister institution implemented a centralized learning outcome repository using their Learning Management System to standardize how artifacts would be scored, while maintaining faculty ownership of disciplinary assessment while offering strong institutional infrastructure. The second, a community college, had developed an institutional-guided model in which faculty from across disciplines were compensated to serve as trained evaluators of student artifacts, creating a structured peer-review process that combined institutional coordination with faculty expertise and shared responsibility.

Implications for MTU

These findings carried three important implications for MTU's redesign. First, the prevalence of decentralized models confirmed that truly institutional-led assessment represents an innovative approach with limited existing exemplars. Second, the two outlier institutions demonstrated that

centralized coordination and distributed responsibility are not mutually exclusive, they can be productively integrated. Third, specific structural elements identified in those models, standardized rubrics, shared data collection protocols, and faculty training were adapted for MTU's context. Drawing on insights from a sister institution and a community college, MTU developed the foundational principles for the iROCA framework: maintaining institutional coordination and procedural clarity while adapting structures to MTU's specific context, resources, and culture.

Results

iROCA: A Theory-Driven Process Model

The iROCA initiative is grounded in a Theory of Change that maps how a set of coordinated inputs and activities are expected to produce multilevel impacts on assessment culture and practice at MTU. Figure 3 presents the iROCA process model, which illustrates the causal pathways through which the initiative operates. This process model is informed by logic model principles (AECF, 2004, 2022; W. K. Kellogg Foundation, 2006) and adapted to make explicit both the causal mechanisms and the contextual conditions that enable or constrain change.

The process model operates through four interconnected causal mechanisms. First, resource mobilization requires multiple institutional actors contributing diverse inputs (i.e., financial, human, technological, and informational), creating a comprehensive support infrastructure that no single unit could build alone. Second, coordinated action involves structured activities such as faculty training, rubric norming, and progress monitoring to reduce variability across programs and build collective capacity over time. Third, condition management explicitly addresses factors such as staffing adequacy, faculty beliefs about assessment, and organizational capacity to remove barriers that would otherwise prevent outputs from translating into impacts. Fourth, cascading outcomes have immediate impacts, such as increased participation, and streamlined data processes.

Figure 3
The iROCA Theory of Change Process Model

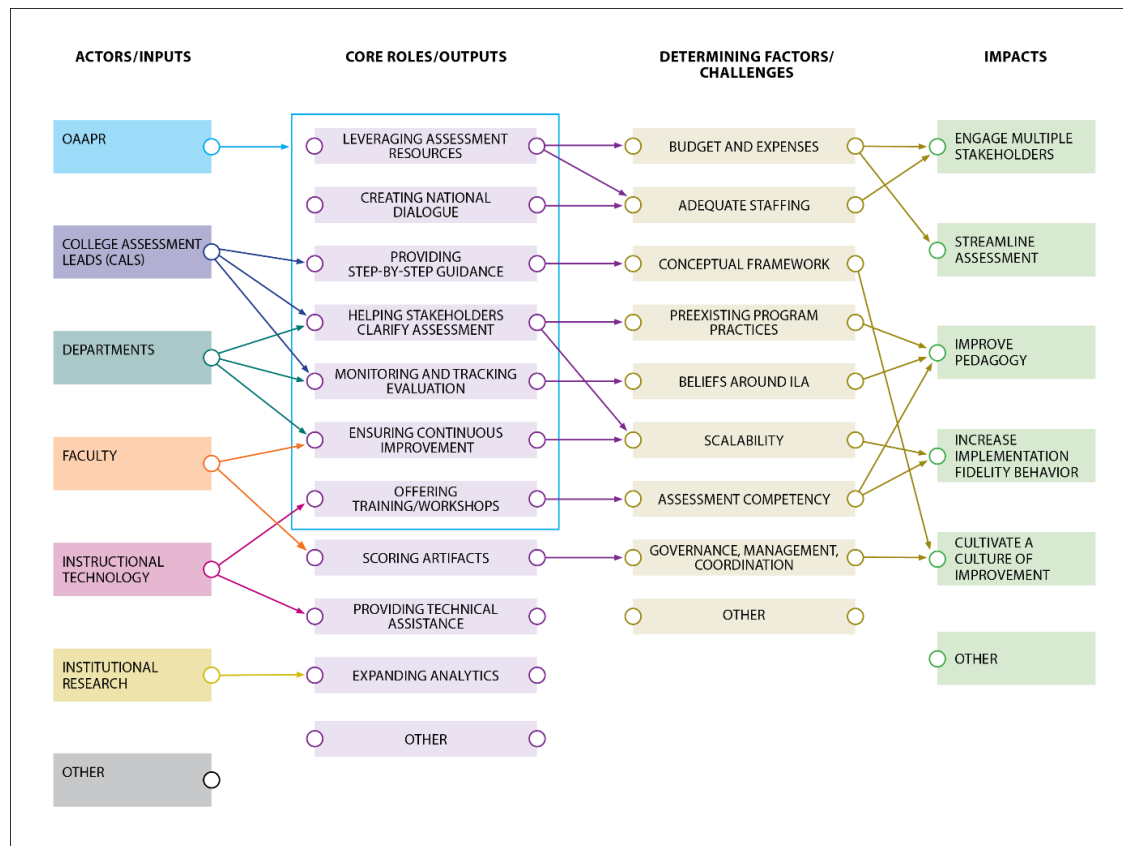


Figure Note. Process model adapted from W. K. Kellogg Foundation (2006) logic model framework and applied to the iROCA assessment context. OAAPR = Office of Academic Assessment and Program Review. Connecting lines indicate networked rather than strictly sequential relationships among elements.

As illustrated in Figure 3, these relationships are networked rather than strictly linear. Multiple actors contribute to multiple activities. Activities address multiple determining factors simultaneously and impacts emerge from combinations of successfully executed activities under favorable conditions. This networked structure reflects the reality that institutional change rarely follows a neat sequential logic; it requires the simultaneous activation of multiple levers. The connecting lines in Figure 3 are intended to make this complexity visible while still allowing the reader to trace the general direction of influence.

Actors and Inputs

Actors are the institutional stakeholders who contribute resources and expertise to the iROCA process and inputs are the tangible and intangible resources they bring (Breny, Fagen, & Roe, 2016). Together, they form the foundational infrastructure of the intervention (Camacho-Garland & Beach, 2023). MTU's ILA model relies on coordinated engagement from multiple institutional actors, each contributing in ways that complement and reinforce the contributions of others.

At MTU, the Office of Academic Assessment and Program Review (OAAPR) provides strategic leadership, procedural frameworks, and institutional coordination that establishes its foundational infrastructure for assessment. College Assessment Leads' (CALs; N=11) serve as critical liaisons between central administration and academic programs, bridging institutional priorities with disciplinary contexts. Departments contribute disciplinary expertise, program-specific data, and curricular decision-making authority, while faculty supply pedagogical knowledge, direct assessment implementation, and interpretation of student learning evidence. Other collaborators, (i.e., Instructional Technology and Institutional Research) provides support for the use of learning management systems, the delivery of extended analytics, and the management and development of learning outcome dashboards. This multi-actor structure reflects the ILA principle of distributed responsibility. No single entity owns assessment, and multiple stakeholders contribute complementary inputs that collectively enable systematic, sustainable practices.

Coordinated Activities and Outputs

Outputs are the immediate, short-term results that serve as early indicators of progress (Breny, et al., 2016). Unlike outcomes, which reflect longer-term change in behavior or culture, outputs are specific, observable work products and participation-based activities that demonstrate the intervention is being implemented as intended.

Institutional actors engage in five interconnected coordinated activities that constitute iROCA's operational infrastructure. These include: (1) developing and disseminating assessment tools, rubrics, and evidence collection methods; (2) providing step-by-step guidance through templates and timelines that reduce procedural ambiguity; (3) facilitating faculty training and rubric norming sessions to build shared assessment literacy; (4) embedding learning outcomes into the LMS so that data collection is integrated into existing teaching workflows; and (5) monitoring participation and data submission to maintain accountability. Technical and analytical activities also complement this work, such as data management support, and developing outcome dashboards that make data accessible and actionable at the program, college, and institutional level. These activities constituted the concrete outputs of ILA, the work products and processes that translate institutional inputs into meaningful action.

Determining Factors

Determining factors are the contextual conditions, some within the institution's control, others not, that mediate the relationship between activities and impacts (Chen, 2014). At MTU, two critical challenges emerged early in the initiative. First, there were budget constraints and actor skepticism. Budget constraints were addressed through joint funding from the Provost's and Dean's offices, which

enabled assessment leaders dedicated to coordinating assessments in each college and providing faculty support and guidance. This structural commitment signaled institutional seriousness.

However, actor, skepticism posed a more subtle but equally significant threat. According to Hoey and Nault (2002), trust is a critical prerequisite for securing active participation and long-term commitment to assessment. Faculty skepticism about the uses of assessment data, particularly concerns about administrative surveillance or punitive use of data, had to be actively addressed through transparent communication, faculty-driven processes, and visible evidence that assessment results were being used for improvement rather than evaluation of individuals.

Broader enabling conditions included adequate staffing at institutional, college, and program levels, a shared conceptual framework articulating the purpose and principles of ILA, preexisting program practices that needed to be honored while building institutional consistency, and faculty assessment competency the collective capacity to design valid assessments, interpret evidence meaningfully, and use results for improvement. Organizational factors such as scalability and governance structures, which establish clear decision-making authority and cross-functional collaboration mechanisms, also shaped implementation. Additional contextual factors including accreditation requirements, state mandates, and campus culture, further influenced how the model was received and enacted (Spence, 2022).

Impacts and Outcomes

Outcomes represent the systemic changes and tangible improvements that result from the intervention over time. The iROCA initiative was designed as a three-year first phase, and the impacts described here reflect what was achieved during that period. These are not representative of the destination of MTU's assessment transformation; rather, they are the foundational conditions, cultural, technological, and structural, that make the subsequent five-year PSLO assessment cycle viable.

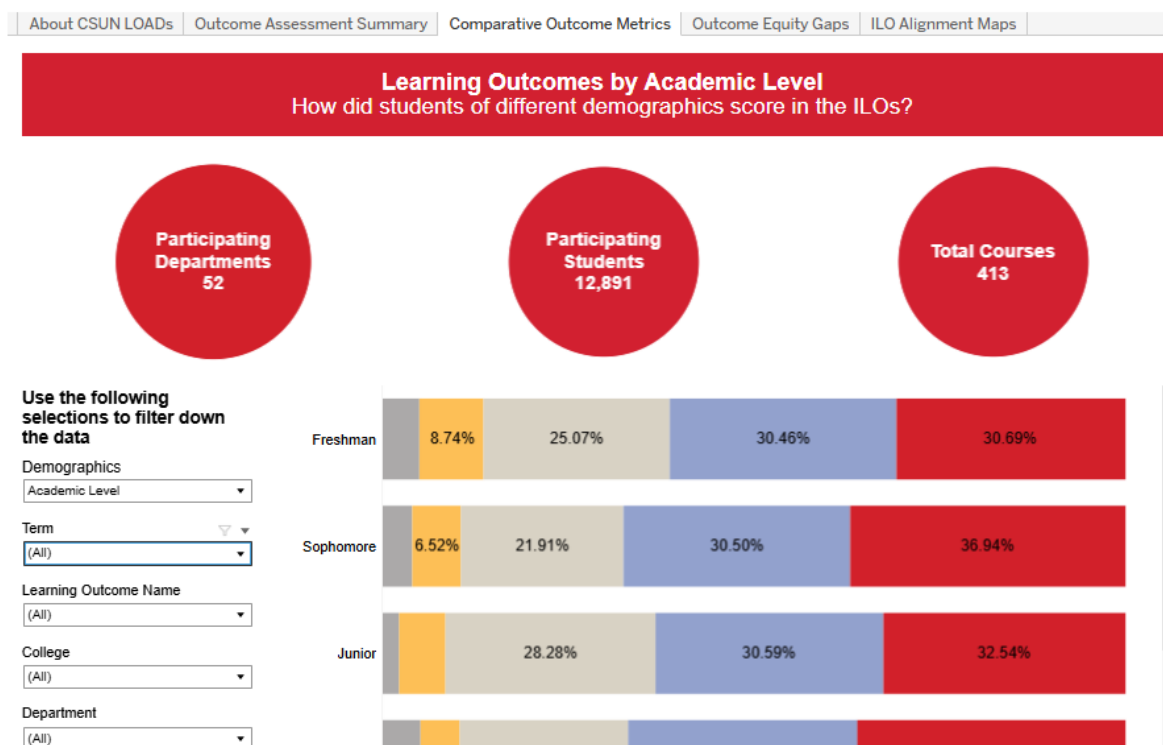
The most immediate and measurable impact was a substantial increase in faculty participation. Prior to iROCA, fewer than 12 programs had consistent faculty-led assessment involvement following the pandemic-era disruptions. The five-year initiative documented steady, sustained growth across every cycle. In Year 1, 11 academic departments participated, assessing more than 900 student artifacts across 17 courses and 3 colleges. Year 2 expanded to 20 departments, 61 courses, and more than 2,000 student artifacts assessed across 5 colleges. Year 3 served as an implementation fidelity year, while formal outcomes data collection was paused to allow programs to review their practices, 4 departments voluntarily assessed 261 students across 7 courses, and 2 colleges. This was an early sign that iROCA was becoming embedded in routine faculty work rather than experienced as an externally imposed requirement. By Year 4, participation had grown to 36 academic programs, 157 courses, and more than 4,900 student artifacts assessed. Based on what was learned across those four years, the assessment calendar was refined: data collection shifted to the fall semester, with the spring semester reserved for continuous improvement reporting and program-level reflection. Year 5 represented a single fall semester of data collection under the revised model with 38 departments participating in assessment practices spanning across 144 courses and more than 4,700 student artifacts assessed.

Taken together, these figures represent a more than threefold increase in active program engagement compared to the pre-iROCA baseline. This also demonstrates that the ILA model succeeded in distributing assessment responsibility broadly across the institution rather than concentrating it within a small group.

A second major impact was the streamlining of assessment processes. All programs assessed the same institutional outcomes across different courses using a shared rubric and a common LMS platform, from which learning outcomes data were extracted, cleaned, disaggregated, and analyzed centrally. This standardization, previously absent from MTU's assessment landscape, made it possible for the first time to aggregate data across programs and identify institution-wide trends in student achievement of ISLOs. Interactive Tableau dashboards (see Figure 4) made these data accessible to faculty, administrators, and program reviewers, enabling the kind of data-informed conversations about teaching and learning that had not been possible under the prior decentralized model.

Figure 4

Screenshot of MTUs Learning Outcome Assessment Dashboard



A third impact was the emergence of alignment-driven instructional reflection. As faculty engaged with ISLOs through the iROCA process, many discovered a gap that formal assessment data alone cannot easily surface. Courses that were mapped to specific institutional outcomes were not, in practice, designed to develop them. For example, a course aligned to written communication might assign a final paper but include no scaffolded instruction in writing, no explicit criteria communicated to students, and no formative feedback aimed at developing that competency. When faculty were asked why the course was misaligned, the answer was often the course had never been intentionally designed to teach the outcome it was credited with assessing. This realization proved to be one of the most generative outcomes of the initiative. Rather than simply adjusting alignment maps to satisfy reporting requirements, programs are interrogating the relationship between what courses claimed to develop and what they asked students to do. Programs are scheduled to work together with CALs to revise alignment maps. This kind of collaboration represents the kind of evidence-based improvement iROCA was designed to enable, not surface-level compliance corrections, but a deeper reckoning with the coherence between institutional commitments and classroom practice.

Perhaps the most significant but hardest-to-quantify impact was the beginning of a cultural shift. Prior to iROCA, assessment at MTU was widely perceived by faculty as an administrative burden disconnected from teaching. During a few of the assessment training sessions in Year 2, several participating faculty in attendance agreed that iROCA was not so burdensome. One faculty member stated at the end of the training, "That's it? It's much easier than I thought." Another faculty member sent an email stating, "The training was quick, easy, and supportive. I am beyond grateful for your generosity in helping me to get up to speed!" These statements represented a cultural shift in perceptions regarding workload.

While a gradual increase in participation did not completely dispel concerns about administrative control, it was instrumental in shifting the culture toward one where more faculty actively contributed to institutional assessment efforts. The proportion of faculty characterizing assessment as "primarily compliance-driven" or "meaningless," declined over the course of the initiative. The guidance of CALs and administrative backup from associate deans, norming sessions, and visible data dashboards on student achievement by program were key mechanisms through which this shift occurred. However, we acknowledge that such concerns are unlikely to be dispelled completely in any context where assessment participation is a requirement and data are used for institutional accountability.

The five-year iROCA initiative achieved its specific infrastructural goals. The LMS-based data collection system was fully operational, the assessment office became a resource for guiding the assessment process, CALs functioned effectively as institutional-program bridges, and assessment became a systematic process with each program, including externally accredited programs following the same protocols for data collection, analysis, and continuous improvement. This foundation positions MTU to launch the five-year PSLO cycle with the institutional capacity and technological infrastructure that the prior model entirely lacked.

Discussion

Strategies for Employing iROCA

Classroom assessment is a well-established practice shown to support both summative and formative learning while contributing to the refinement of course design and instructional delivery (Angelo & Cross, 2012; Black & Wiliam, 2018; Twombly, 2024). A critical distinction, however, exists between classroom assessment and outcomes-based assessment. While classroom assessment addresses whether students engaged with course requirements, outcomes-based assessment examines whether meaningful learning has occurred; specifically, whether students can demonstrate expected knowledge, skills, and abilities (Abduldaquer et al., 2023). iROCA bridges this gap by structuring classroom-level data collection in ways that aggregate to program and institutional levels.

Faculty Participation

iROCA (Instructors Reporting on Classroom Assessment) was developed in response to MTU's need for a scalable, faculty-centered approach to institutional assessment. The model centers on faculty reporting classroom assessment data explicitly mapped to Institutional Student Learning Outcomes (ISLOs), creating a direct connection between individual course practice and what the institution is accountable for demonstrating to accreditors and other stakeholders. The lowercase "i" is intentional. iROCA focuses not on evaluating individual instructors but on capturing classroom-level evidence of student learning systematically. Assessment data belong to programs and are used for improvement, not personnel evaluation.

At MTU, participation in iROCA is framed as an instructional activity, and part of teaching effectiveness and a professional expectation aligned with accreditation and institutional improvement goals rather than a top-down mandate. Faculty who embraced assessment as a contribution to shared institutional knowledge were more likely to engage meaningfully than those who experienced it as an additional reporting burden. In Academic Years 1 and 2, participation was voluntary with the understanding that assessing student outcomes is a university expectation. We engaged early adopters across one-third of the university's colleges. By Year 3, all colleges had been onboarded as the model moved toward full implementation and evaluation of fidelity to intended outcomes.

Alignment Requirements

To participate in iROCA, programs were required to align courses with ISLOs and map those alignments in the LMS to an already-existing assignment. By starting with cross-disciplinary competencies that applied across all undergraduate and graduate programs, iROCA established a common framework and shared data infrastructure before introducing the greater complexity of PSLOs in the subsequent cycle.

College Assessment Leads (CALs) collaborated with associate deans and department chairs to develop course sampling plans ensuring equitable representation of lower- and upper-division courses across each college. Faculty retained full autonomy over assignment types (i.e., papers, projects, exams), or other demonstrations of learning, while receiving support through training and rubric norming sessions to ensure consistent application of criteria across disciplinary contexts. Faculty then imported the

designated outcomes into the LMS and scored selected student work using a predefined rubric on a scale from 0 ("no evidence") to 4 ("mastery").

When outcomes are accurately aligned in the LMS, a single act of faculty assessment generates data at the course, program, and institutional levels simultaneously. Faculty complete no additional reporting tasks beyond what they already do while grading; the burden of data aggregation and analysis is borne by the institutional infrastructure. This structural shift, from one designated faculty member writing assessment reports to all faculty as assessors whose existing pedagogical work generates institutional data, is what makes iROCA sustainable at scale.

Data Collection and Reporting

Primary data collected through iROCA include faculty-scored student work, course sampling plans, outcome alignment reports, and faculty participation logs. These data are extracted from the LMS and cleaned by institutional research staff with support from student analysts and research associates. The processed dataset is visualized through interactive Tableau dashboards providing program-, college-, and institution-level views of student achievement across ISLOs, enabling data-informed discussions about patterns in student learning, areas of strength, and targets for improvement.

The dashboard infrastructure is designed to scale directly to the PSLO cycle. The same data architecture, LMS workflows, and analytical processes can accommodate PSLO-level data with modifications to outcome mappings. This scalability was a deliberate design goal from the outset, the ISLO phase was never an end but a foundation for a more comprehensive and longitudinal assessment system.

Conclusion

This article demonstrates the value of institution-led assessment (ILA) and the potential of a Theory of Change (ToC) framework to transform assessment practices from fragmented and compliance-driven to cohesive, evidence-based, and sustainable. Through MTU's iROCA initiative, a five-year effort focused on ISLOs, technology integration, and capacity building, the article shows that when assessment is intentionally structured and institutionally supported, faculty participation increases substantially, data quality improves, and the conditions for genuine evidence-based improvement are created. The process model's core elements of inputs, coordinated activities, determining factors, and cascading outcomes helped clarify the causal mechanisms through which institutional change occurs (De Silva et al., 2014; Aston & Wadeson, 2023).

A central motivation for this work was to address the persistent reluctance among academic administrators to take an active, structuring role in assessment, a reluctance rooted in deference to faculty autonomy and a belief that assessment belongs exclusively to individual programs. MTU's experience demonstrates that this deference, while well-intentioned, has practical costs: when institutions limit themselves to setting mandates and leave design and implementation entirely to programs, assessment systems tend toward fragmentation and compliance performance rather than genuine improvement. The iROCA initiative illustrates that institutional leadership, in terms of financial investment, coordination infrastructure, and training, is not a threat to faculty autonomy but

a precondition for the kind of systematic, high-quality assessment that faculty autonomy alone cannot produce.

The ToC framework proved particularly valuable in designing and communicating the intervention. By making explicit the assumptions, mechanisms, and conditions underlying the initiative, the ToC helped align stakeholders around a common understanding of what iROCA was trying to achieve and how. It reframed assessment not as a top-down compliance task but as a collaborative, evidence-generating activity. Resistance, often rooted in inadequate training, insufficient funding, and perceptions of assessment as bureaucratic (Suskie, 2018), was countered by integrating assessment directly into faculty workflows through the LMS, supported by institutional rubrics and coaching from CALs. The gradual expansion of participation across five years suggests that this reframing was modestly successful, though the work of cultural change in assessment is never complete.

This article contributes to the evaluation literature in three ways. First, it introduces and operationalizes ILA as a distinct framework, offering a conceptual vocabulary for describing the kind of institutional involvement in assessment that the field has lacked. Second, it demonstrates the practical application of a ToC process model in designing and evaluating an institution-wide assessment initiative, providing a template that other institutions could adapt. Third, it documents specific evidence of impact, participation rates, data infrastructure development, and early survey data on cultural shift, that go beyond anecdote to ground the claim that ILA is theoretically and practically achievable.

Several important questions remain for future research. First, how do specific ToC design elements, such as the sequencing of institutional outcomes before program outcomes work? Second, do the use of institutional-program liaisons influence faculty buy-in and implementation fidelity across different institutional contexts? Third, what is the relationship between an institution-focused first phase and program outcomes that emerge in the subsequent cycle? In other words, does the infrastructure and cultural preparation of the first phase translate into better program outcome data quality and more meaningful program improvement? Fourth, how does ILA interact with specialized accreditation requirements, and what models exist for integrating ILA data with the distinct assessment timelines and criteria of bodies like ABET or AACSB? Finally, longitudinal studies are needed to assess whether the cultural shifts observed at MTU are durable, whether faculty continue to engage with assessment evidence in their instructional decision-making after the initial intensity of the initiative subsides.

Institution-led assessment models like iROCA represent a promising evolution in assessment culture. It is one that not only evaluates what students are learning but creates structural and cultural conditions for deeper, more equitable, and more transformative educational outcomes.

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