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Creating Sustainable Assessment
through Collaboration:
A National Program Reveals Effective Practices

Kara J. Malenfant and Karen Brown

Foreword by Lisa Janicke Hinchliffe

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KARA J. MALENFANT is a senior staff member at the Association of College and Research Libraries (ACRL, a division of the American Library Association), where she coordinates government relations advocacy and scholarly communication activities and is the lead staff member on the Value of Academic Libraries initiative and Assessment in Action program. She provides consulting services on organization development and use of ACRL's standards for libraries in higher education. Kara began her position at ACRL in fall of 2005 after working for six years at DePaul University Libraries in Chicago. A former Peace Corps volunteer, she holds a PhD in leadership and change from Antioch University and a master's degree in library science from the University of Illinois at Urbana-Champaign.

KAREN BROWN is a professor at Dominican University (River Forest, Illinois) in the School of Information Studies and teaches in the areas of assessment, collection management, foundations of the profession, and literacy and learning. Prior to joining Dominican University's faculty in 2000, she developed and coordinated continuing education programs for the Chicago Library System, one of Illinois's former regional library systems. She has also held positions focusing on collection development, reference, and instruction at the University of Wis-consin, the University of Maryland, Columbia University, and Bard College. She holds a PhD in media ecology from New York University and master's degrees in library science and adult education from the University of Wisconsin.

NILOA Mission

The National Institute for Learning Outcomes Assessment's (NILOA) primary objective is to discover and disseminate the ways that academic programs and institutions can productively use assessment data internally to inform and strengthen undergraduate education, and externally to communicate with policy makers, families, and other stakeholders.

Acknowledgements

Abstract

Meaningful and sustained assessment is best achieved when a campus unit takes a collaborative leadership role to work with other departments, offices, and groups. Simply developing and implementing assessment in isolation and for the unit itself is not enough. While the value of collaboration among diverse campus constituents is widely recognized, it is not easily achieved. This occasional paper synthesizes the results of the program Assessment in Action: Academic Libraries and Student Success (AiA) by the Association of College and Research Libraries, which involved over 200 campus teams led by librarians.[1] Five particularly compelling AiA findings are the positive connections documented between various functions of the library and aspects of student learning and success: (1) Students benefit from library instruction in their initial coursework; (2) Library use increases student success; (3) Collaborative academic programs and services involving the library enhance student learning; (4) Information literacy instruction strengthens general education outcomes; and (5) Library research consultations boost student learning. These findings emerged from an assessment process grounded in collaborative planning, decision-making, and implementation. In this paper, we describe the collaborative practices advanced by the AiA program and explain how these practices promote assessment aligned with institutional priorities, encourage common understanding among stakeholder groups about attributes of academic success, produce meaningful measures of student learning, create a unified campus message about student learning and success, and focus on transformative and sustainable change. This paper asserts that the AiA experience serves as a framework for designing assessment approaches that build partnerships and generate results for improving student learning and success through action research, and that the program results demonstrate how libraries contribute to fostering broad student outcomes essential to contemporary postsecondary education. The assessment practices that emerged from the AiA projects can be implemented in a variety of institutional settings and with varying campus priorities.

Foreword

When the Association of College and Research Libraries (ACRL) convened the *Value of Academic Libraries (VAL) Summits* in 2011, the sense of potential and possibilities gave an excitement to the conversations that was thrilling and perhaps a bit daunting as well. Participants identified many opportunities to investigate and communicate the impact of academic libraries on student learning and success. They also, however, made clear that this work would require not only developing librarian capacity but also building campus partnerships to carry out the assessment projects.

Six years later, the results of ACRL's efforts have far exceeded what we had dared dream. This NILOA Occasional Paper tells the story of the strategies and benefits of collaborative assessment through an analysis of one of ACRL's VAL programs, *Assessment in Action: Academic Libraries and Student Success.*

Through the *Assessment in Action (AiA)* program, academic libraries have established compelling evidence of the impact of library programs and services on student learning and success. That evidence base is now the foundation of a formal research agenda for ACRL as well as related advocacy programs. In addition, the design of AiA established the components of a successful approach to professional development that equips librarians with assessment and leadership skills and strategies as well as joining them with what has become a thriving, self sustaining, and volunteer-led community of practice. And, most importantly for this publication, through AiA, ACRL has documented factors that foster collaborative assessment and the resulting benefits, which can serve as a model for other integrative assessment programs.

As Kara and Karen observe, while the value of collaboration for assessment is widely recognized in higher education, collaborative assessment that achieves meaningful and sustained change is not easily achieved. Varying cultures, organizational structures, and reward systems as well as competing priorities are just some of the factors that can act as barriers to developing an integrated approach to assessment that is aligned with institutional priorities and mission.

Higher education leaders who want to move their institutions toward more collaborative approaches to assessment will find pragmatic guidance in Kara and Karen's analysis of AiA, particularly with respect to the strategies for supporting and promoting successful assessment teams. AiA revealed that institutional administrator support is critical for success as well as careful attention to team leadership and membership, skills, and knowledge, and alignment with institutional priorities. AiA also demonstrated that academic librarians are uniquely positioned on campus to serve as bridges across various institutional divides, including those gaps between and among academic and student services, managerial and faculty cultures, and disciplinary and general education programs. Leveraging the unique nature of the library as an academic commons for situating shared discussions about student learning and success is a smart strategy for catalyzing campus-wide commitment and engagement with assessment and sustaining organizational transformation.

I was the President of ACRL when the *Value of Academic Libraries Initiative* was established as a strategic priority. It is with great pride that I can today share the results of the AiA program and its contributions to academic librarianship and to higher education more generally. Transforming academic libraries transforms higher education and we will continue to build on the strong foundation that is AiA.

Lisa Janicke Hinchliffe
Professor, University Library, University of Illinois at Urbana-Champaign
President, ACRL, 2010-2011

Creating Sustainable Assessment through Collaboration: A National Program Reveals Effective Practices

Kara J. Malenfant and Karen Brown

Introduction

The Association of College and Research Libraries' (ACRL) Value of Academic Libraries Initiative has flourished since its inception in 2010 with the publication of *Value of Academic Libraries: A Comprehensive Research Review and Report.*[2] The program Assessment in Action: Academic Libraries and Student Success (AiA) is a cornerstone of that success, supporting more than 200 campus teams as they investigated the impact of the academic library on student learning and success. The teams of diverse campus stakeholders participated from 2013 to 2016 (seventy-five in the first year, seventy-three in the second year, and fifty-five in the third year) and represented all types of higher education institutions from forty-one states, the District of Columbia, four Canadian provinces, and Australia. Funded through a National Leadership Demonstration Grant by the U.S. federal agency the Institute of Museum and Library Services, AiA was undertaken in partnership with the Association for Institutional Research (AIR) and the Association of Public and Land-grant Universities (APLU). The grant supported the design, implementation, and evaluation of campus-based projects with the overarching goals of strengthening the competencies of librarians in campus leadership and data-informed advocacy, fostering collaborative campus relationships around assessment, and building an evidence base about the impact of academic libraries on student learning and success as well as documenting effective assessment practices and strategies.

This paper focuses on the collaborative assessment practices that guided the teams and resulted in campus-wide benefits. For years, higher education leaders have bemoaned the lack of collaboration across academic and student affairs units and noted the pivotal role such cooperation plays in promoting student learning. As Kellogg explains, "The entire academic community must work together to place more of an emphasis on student learning and to create a seamless learning environment between in- and out-of-class experiences for students."[3] Banta and Kuh specifically point to the need for better collaboration between academic and student affairs professionals in terms of assessment[4] and identify three obstacles to collaboration between faculty and student affairs staff: cultural-historical, bureaucratic-structural, and institutional leadership.[5] Academic librarians, we believe, are uniquely situated to bring together and bridge the academic and student affairs sides of the house.[6] They focus their programmatic and service efforts on the intellectual development of students, and they care deeply about the life of the mind, while striving to run efficient, effective operations. They straddle what Bergquist and Pawlak call the "twin pillars" of contemporary higher education in the United States—collegial culture on the one hand and managerial culture on the other.[7] Librarians are well versed in collaborative work, having broad involvement in multiple facets of higher education. They are poised to play a convening role at the crossroads of disciplines and between academic and student affairs.[8]

> *The program Assessment in Action: Academic Libraries and Student Success (AiA) supported more than 200 campus teams as they investigated the impact of the academic library on student learning and success.*

Furthermore, findings from the Wabash National Study of Liberal Arts Education put into high relief the tremendous challenge of translating evidence from assessment into improvements in student learning. Blaich and Wise found, "Assessment data has legs only if the evidence collected rises out of extended conversations across constituencies about (a) what people hunger to know about their teaching and learning environments and (b) how the assessment evidence speaks to those questions."[9] There is widespread recognition that it is incredibly hard to get meaningful action and results in using assessment findings to improve student learning. The American Association of State Colleges and Universities 2016 Academic Affairs Winter Meeting, for example, focused on factors that contribute to student success. The conference description highlighted this challenge: "A growing body of research suggests that we know a great deal about the most promising practices to dramatically increase student success. Yet student success efforts on too many campuses remain piecemeal, disconnected, or idiosyncratic. We don't have a knowledge problem. We have an implementation problem."[10]

The AiA program was designed with the belief that a collaborative approach to assessment, with a team of diverse stakeholders, will more likely overcome the challenges of taking action to improve student learning.

The AiA program was designed with the belief that a collaborative approach to assessment, with a team of diverse stakeholders, will more likely overcome the challenges of taking action to improve student learning. In this paper, we relate the AiA findings and team experiences to a selected body of literature on organization development, leadership, and change to draw out lessons that can be applied more broadly to higher education institutions seeking to improve students' learning and success through an assessment process that involves multiple campus representatives. This paper makes a contribution to the literature about higher education assessment by sharing the program's findings about practices that support and foster collaborative assessment and describing the benefits gained with this approach.

Brief Overview of "Assessment in Action" Program Design

Three primary goals framed the AiA program activities:

1. Develop academic librarians' professional competencies needed to document and communicate the value of the academic library in relation to an institution's goals for student learning and success.
2. Strengthen collaborative relationships with higher education stakeholders, including campus faculty, academic administrators, and assessment officers.
3. Contribute to higher education assessment by creating approaches, strategies, and practices that document the contribution of academic libraries.

Higher education institutions applied for the program through a competitive process. The program design required that the campus library take the lead, and the application included naming a librarian team leader and team members, securing letters of support from the library director and chief academic officer, and proposing an area of assessment inquiry that clearly related to a campus priority. The assessment areas needed to consider some aspect of the library, such as collections, space, instruction, or reference, in relation to a facet of either student learning, at the course, program, or degree level, or a feature of student success, for example, retention, completion, or persistence. In addition to a librarian leader, each team had to consist of at least two representatives from other campus departments or units—this could be a faculty member, student affairs representative, institutional researcher, assessment officer, or academic administrator.

The AiA program provided direct support through blended in-person and online professional development for the librarian team leaders, during which they led campus teams in planning and implementing an assessment project over a fourteen-month period.

Team leaders and members presented the results of their assessment projects in poster sessions at the American Library Association annual conferences. Each of the AiA teams was also asked to submit a final project descriptive report, which includes an abstract and image of the conference poster. These reports are available in an online collection with an interface for filtering results based on institution type, geographic location, enrollment, accreditation body, team member role, and library staffing levels, among other criteria.[11] In addition to the individual project reports, for each of the three years of the AiA program, ACRL produced a synthesis of the findings.[12] These findings comprise a body of evidence about the impact of academic libraries on student learning and success but also about effective practices in library leadership and campus collaboration on assessment. For more on the design of AiA program, see Appendix A: Assessment in Action Program Design.

Compelling Evidence for Academic Library Contributions to Student Learning and Success

The collaborative process resulted in an extensive collection of methods and tools used by the campus teams during the three-year AiA program to identify and assess practices that contribute to students' academic outcomes. It is important to note that the AiA approach to assessment merged inquiry with practice, using an action research framework. The projects emphasized improving academic practices through systematic investigation of a question grounded in institutional context. While the project findings may not be generalizable, as you would expect of social science research from a positivist perspective, they do tell a strong story about the multiple ways that academic libraries are contributing to student learning and success. In addition, the AiA methods and tools can be adapted to other settings with care and consideration of local context. The collaboration that occurred among campus partners in each assessment project is reflected in and integral to the significance of these findings. A September 2017 ACRL report about the impact of libraries on student learning and success further spotlights the importance of collaborative assessment present in AiA. The report authors looked broadly across the scholarly and practice based literature to analyze 535 library and higher education documents from 2010 to present – including AiA project reports – and noted that the AiA projects serve as exemplars:

> Collaboration is an important theme because of the academic library's primary mission as a research and teaching support unit. The AiA projects explicitly required librarians to collaborate with at least two people outside the libraries. . . The primary mission of the academic library is to support an institution's research and teaching, which necessitates collaboration with other educational stakeholders. Such collaboration includes all librarian efforts to work with those inside and outside their institution to influence student learning and success outcomes.[13]

Particularly noteworthy in the AiA collaborative projects are the positive connections documented between the library and aspects of student learning and success in five areas.

The projects emphasized improving academic practices through systematic investigation of a question grounded in institutional context.

1. **Students benefit from library instruction in their initial coursework.**

   Academic libraries typically place a high priority on information literacy instruction for first year students to provide them with a common set of competencies for their undergraduate studies. The assessment findings from numerous AiA projects that focused on information literacy initiatives for freshmen and new students underscore that students receiving this instruction perform better in their initial courses than students who do not.

2. **Library use is related to student success.**

   Several AiA studies point to positive connections between students' use of the library and academic success. The analysis of multiple data points (e.g., circulation, library instruction session atten-dance, online database access, study room use, interlibrary loan) frequently shows that students who used the library in some way achieved higher levels of academic success represented by GPA, course grades, and persistence compared with their peers who did not use the library.

3. **Collaborative academic programs and services involving the library enhance student learning.**

   To provide more comprehensive and integrated approaches to academic support for students, libraries are finding that partnerships with other campus units, such as the writing center, academic enrichment, and speech lab, are yielding promising benefits. Although campuses vary widely in the types of academic support they provide, the AiA teams at several institutions that investigated collaborative approaches documented positive benefit for students, such as higher grades, academic confidence, an persistence from one term to the next.

4. **Information literacy instruction strengthens general education outcomes.**

   The general education curriculum at most colleges and universities is designed to reach all undergraduate students with a broad liberal arts and science learning experience that revolves around a core set of institutionally defined proficiencies and academic outcomes. focus on inquiry and problem solving for students' personal and professional lives and attention to significant social questions typi - cally frame the courses and learning activities. Some AiA projects studied the library's impact on this aspect of a student's academic learning and found connections between library instruction and students' achievement of institutional core competencies and gen- eral education outcomes. The project findings demonstrate mul - tiple ways that information literacy contributes to inquiry-based and problem-solving learning, including effective identification and use of information, critical thinking, ethical reasoning, and civic engagement.

5. **Library research consultations boost student learning.**

   Several AiA projects that assessed one-on-one or small-group reference and research assistance with a librarian demonstrated

Academic Library Contributions to Student Learning and Success:

1. Students benefit from library instruction in their initial coursework.

2. Library use is related to student success.

3. Collaborative academic programs and services involving the library enhance student learning.

4. Information literacy instruction strengthens general education outcomes.

5. Library research consultations boost student learning.

positive associations with academic success, as documented by such factors as student confidence, GPAs, and improved achievement on course assignments. At some institutions, consultation services provide opportunities for customized, focused instruction, and at other institutions, research consultation services are offered off-site from the library and may use a new service design.

Having overall consistent assessment findings and evidence of effective practice that yields positive library impact in these five areas—across a body of over 200 projects—is strong in part because of the variation. Each setting is different; each library program and service differed in its design and implementation as appropriate for the local context; student characteristics and backgrounds differ in some ways; and a variety of methods were used to document the library impact on students.[14] Because the findings are derived from action research, which is situated in authentic institutional contexts, the results reflect "on the ground" practices in terms of resources available and campus priorities.

Additional findings from the AiA projects suggest four other promising areas of inquiry about the impact of the library. While these impact areas may not have been studied as extensively as the five areas discussed above, the assessment results do build evidence for positive connections between the library and students' learning and success.

- *The library contributes to improved student retention.*
  At most higher education institutions, student retention is designated as a high priority, and the campus library's contributions to this priority are receiving attention and recognition as a result of assessment studies that investigate the connection. Determining retention rates can include different measures, but the focus is typically on a student's continued progress from one semester to the next or a student's persistence toward degree completion. Some AiA projects investigated how library instruction contributes to improving an institution's student retention and academic persistence. Even though the complexity of factors and influences that may affect students' progress from one semester to the next or their persistence toward degree completion is considerable and determining reliable methods for assessing such progress is challenging, the results of these AiA projects show promising associations of the library to student retention and persistence.

- *Library instruction adds value to a student's long-term academic experience.*
  First-year courses that all freshmen take provide excellent opportunities for the library to reach a majority of students and present core information literacy instruction that serves as a foundation for their subsequent coursework. Many academic libraries are increasingly looking at the impact of this instruction as students move through their academic studies. In addition, the development and assessment of library instruction provided after the first year is receiving attention, particularly when information literacy competency is designated as one of the college's or university's core proficiencies. As students progress in their studies, library instruction usually needs to use a scaffolded approach to teach more specialized research strategies or discipline-specific content. The value of information literacy

As students progress in their studies library instruction usually needs to use a scaffolded approach to teach more specialized research strategies or discipline-specific content.

competencies as students move through their academic programs and complete upper-level courses was investigated by a number of AiA campus teams, and benefits associated with library instruction beyond a student's first year were noted.

- **The library promotes academic rapport and student engagement.**
Academic rapport can influence student motivation, academic engagement, and enjoyment of courses and learning in general. Faculty and staff availability, responsiveness, interacting and showing an interest in students, and understanding that students encounter personal problems that may affect their academic work are all attributes that foster academic rapport. Some AiA teams assessed how the library might contribute to a student's sense of academic rapport with a college or university. While academic rapport encompasses multiple attributes, the findings of these AiA projects exemplify different ways that these various factors can be investigated to assess the library's impact on a student's sense of connection with his or her institution and the types of contributions the library might make to enhancing academic rapport.

- **Use of library space relates positively to student learning and success.**
Several AiA campus teams also investigated the function of library space and its potential impact on students' academic experience. Some aspects of this impact area that were studied included the location of service points in relation to students' study preferences and learning needs and the configuration of the facility's space, furniture, and technology in relation to fostering academic and social community among students. Many of the AiA projects with this inquiry focus recorded positive connections between aspects of library space configuration and use and student academic engagement, collaborative learning, and a student's sense of academic community.

The assessments completed by the AiA teams demonstrate the library's promising connection to desirable academic experiences and also help all of us in higher education better understand how the contemporary academic library contributes to fostering the kind of broad student learning outcomes that are increasingly seen as essential in postsecondary education. The AiA findings, yielded by systematically and carefully studying what is actually happening at the institutional level on local campuses, reveal an alignment of academic libraries with the interests of the broader higher education landscape. As Wehlburg notes, "Many institutional mission statements include items that are not specific to an academic discipline and, indeed, may not be focused within a specific department."[15] Public opinion research shows these cross-disciplinary, far-reaching academic outcomes are among the intellectual and practical skills that employers prize most and typically include critical thinking and analytic reasoning, complex problem solving, information fluency, and civic and global awareness and engagement.[16] They are skills that reflect integrative learning experience, and the assessment of these experiences is likely best when it's collaborative, involving multiple campus constituents.

A Commitment to Action

AiA was designed to support collaborative teamwork to identify important questions about library impact on student learning and success, design assessments that would reveal information about library contributions, and

The AiA findings, yielded by systematically and carefully studying what is actually happening at the institutional level on local campuses, reveal an alignment of academic libraries with the interests of the broader higher education landscape.

take action based on what was discovered. The action research framework of AiA challenged the teams to go beyond library use and satisfaction and to examine questions of impact and outcomes. It was understood that not *all* projects would likely demonstrate that there is in fact a library impact; however, there was a belief that developing and implementing a project as part of the AiA program would foster learning, spur action, and build capacity for continued collaborative work at each institution. An overarching goal in the AiA program design was that each project would be change-centric, and we kept the focus on "action" throughout.

We described AiA to prospective applicants as "team-based" and "collaborative," believing such an approach would generate and yield the action we were seeking (in terms of both growth and development of team members and improvements to practice that increase positive student outcomes. Lattuca and Creamer's description of faculty collaboration as "a social inquiry practice that promotes learning" resonates with the AiA project design .[17] They place an emphasis on the interaction and relational dynamics that occur during a collaborative process and an "inquiry practice" that merges scientific and artistic explorations to advance knowledge and the co-construction of knowledge for ongoing renewal and change. This notion of inquiry practice, with its emphasis on iterative knowledge construction to support meaningful and authentic change, is consistent with the action research approach of AiA.

As noted earlier, higher education faces barriers when attempting to use assessment evidence to fuel improvements in practice that yield gains for students. Talking about and advocating for change is one thing; realizing it in practice is quite another issue. We can look to the literature on organization development, leadership, and change for important insights about transforming ideas into practice, particularly those scholarly works that deepen our understanding about assessment practices and the AiA results.

A key element for building commitment to action is involvement. When people are engaged in deeply examining practice, asking meaningful questions, and making sense of what they learn, they are likely to be more committed to whatever actions come next because they have been part of deciding what steps to take. This type of ownership through involvement reduces the kind of buy-in and support problems that arise from top down approaches. In one model for leading work teams, which was included as a reading for AiA librarian team leaders, Rees asserts that facilitative leadership produces better results for teams because power is not held by one person and decision-making is shared.[18] The work of involving others and being facilitative requires an investment of time beyond the typical model for exercising leadership, and additional energy is often necessary to hone one's skills to adopt such a stance. Olson and Eoyang describe the unique aspects of a facilitative leadership style: "True leadership toward change depends on individual and immediate connections, personal modeling, and authentic reinforcement. . . . Many leaders in organizations know that connectivity comes at a cost, so they shy away from making large investments in learning, communication, and iterative processes."[19] The librarians led the design and implementation of assessment that related directly to their campus's academic priorities, creating opportunities for substantive conversations with campus stakeholders about student learning and resulting in meaningful findings that informed decision-making about library programs and practices. The AiA librarians were coached and prepared to involve team members in collaborative discussions, sustain team engagement, and

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transform assessment results into action that enhanced student learning and success.

Factors That Support and Promote Collaborative Assessment Teams

AiA teams that were most effective with their collaborative assessment process and produced meaningful, actionable results had several factors in common:

Diversity of team members. The multiple perspectives represented by team members from different campus units and departments yielded a multifaceted view of student learning. Team members gained a fuller understanding of the unique contributions of different campus constituents to students' academic experiences. The group process is enhanced with a mix of experience and expertise.

> *From our AiA collaborative project we concluded that collaboration with partners outside the library who share our commitment to supporting student success leads to better programs and events, increased attendance at events, and increased support for student success.*[20]

Diversity is commonly noted as an important factor for effectiveness in the literature on teams. Katzenbach and Smith included developing the right mix of expertise as one of six characteristics of high-performing teams.[21] In addition, Hackman identified having "the right people" as one of six enabling conditions that are most powerful in fostering group performance effectiveness, and he included the importance of diversity on the team saying, "Well-composed teams have the right number and mix of members, each of whom has both task expertise and skill in working collaboratively with others. And they are as small and diverse as possible— large size and excessive homogeneity of membership can cripple even teams that otherwise are quite well designed."[22] Furthermore, a comprehensive analysis of team diversity research proposes a model where "diversity is seen by members as an informational resource and members learn to elaborate the information diversity can offer: exchanging, processing and integrating task-relevant information. In particular, and most encouraging, leaders can increase the benefits of diversity while reducing the disadvantages by encouraging all team members to appreciate the benefits of diversity for team functioning (what are called 'diversity beliefs'."[23]

Diversity of team members, then, serves to ameliorate the likelihood of "groupthink," which can arise when people seek harmony and are reluctant to go against the consensus. As the Finnish proverb cautions, "In a group stupidity condenses." To avoid this trap, it is crucial to include diverse viewpoints and create conditions that encourage members to be critical friends who neither avoid conflict nor dominate conversation, but disagree respectfully as they give and receive feedback.

> *Our team had good collaboration and camaraderie. . . . [W]e all came to the project with a limited understanding about how the assessment would happen, so it allowed us all to learn together, gaining trust as we went. We also all had a shared desire to improve student services. Each of us came to the team with different skills to share.* —AiA librarian, reflective report

Through collaboration with their team members, the librarians gained an understanding of the priorities and functions of other campus units. One librarian commented, "My self-confidence in interacting with individuals outside the library (e.g., campus administrators, faculty members) has increased significantly." Likewise, the librarians reported that team members gained an awareness of the library, particularly in terms of its contribution to student learning and success. The collaborative discussions led to increased awareness about the multiple facets that are part of student learning, as well as common understanding of and agreement on ways that student learning could be measured and described. These discussions, which were challenging at times, were essential to the collaborative assessment work being carried out.

Support from the top. As part of the AiA application process, the lead academic administrators at the institution had to commit to supporting the collaborative assessment work that the team would conduct over a fourteen-month period. At times, the support was encouragement and acknowledgment of the value of the assessment work, and at other times the support was provided by securing access to needed resources such as institutional research expertise or finances. This commitment was critical to the success realized by the AiA teams, because the campus administration was aware of the project and team members felt they had support and upper-level commitment to their assessment work.

> *This project was directly part of a university-wide goal assessment program. By being so heavily involved, the library has been able to get the word out about information literacy to a much larger audience than we would have on our own. The library is truly viewed now by faculty and administration as a key participant in information literacy integration and assessment across campus.* —AiA team leader, reflective report

Even with this level of support, we learned that the deep, sustained collaborative approach was not for everyone. Those teams that were most successful set realistic expectations from the start about the collaborative process. They also tended to be working on campuses where a culture of assessment permeated planning and academic improvement activities. In addition, at those institutions where assessment was integrated into the library's regular practices, the AiA librarians often noted the value to the AiA project when continuous assessment was part of the library's regular practices.

The crucial role of support from the top is consistent with the literature about effective teams. Another of Katzenbach and Smith's six characteristics of high-performing teams is that they shape purpose in response to a demand or opportunity placed in their path, usually by higher-level management.[24] Similarly, Hackman highlights the importance of a supportive organizational context: "Having the material resources needed to carry out the work is of course essential. But beyond that, team performance is facilitated when (i) the reward system provides recognition and positive consequences for excellent team performance, (ii) the information system provides the team with the data and the information-processing tools members need to plan and execute their work, and (iii) the organization's educational system makes available to the team any technical or educational assistance members may require."[25]

The collaborative discussions led to increased awareness about the multiple facets that are part of student learning, as well as common understanding of and agreement on ways that student learning could be measured and described.

Alignment with institutional priorities and mission. Colleges and universities establish institutional priorities to designate academic areas, concerns, and issues of particular importance to the institution and to guide campus-wide initiatives and activities. When an assessment project aligns with campus priorities, the focus is no longer isolated on the needs or issues faced by one unit or department. Everyone is working toward common goals and priorities, thereby breaking down silos and insular perspectives. As one AiA librarian noted:

> *The fact that we had a large project team involving a variety of campus offices means that there is a big group of people who have now experienced an assessment-based initiative that falls within and outside of their office parameters. I think that this creates a new culture of cooperation and especially assessment that I have not experienced before. I think in a large research institution it is most obvious to be rather insular in planning and implementation. This not only allowed or encouraged, it required collaboration outside of the library and I think the project's impact is broader and more significant as a result.*—AiA team leader, reflective report

Hackman also identifies "compelling purpose" as one of the six enabling conditions. His description of the power of having a compelling purpose highlights the value of connecting assessment activities to campus-wide issues of importance: "A compelling purpose energizes team members, orients them toward their collective objective, and fully engages their talents."[26] The librarians led their campus teams through an assessment project that focused on a question aligned with their institution's mission and priorities and in which team members had a shared interest. The projects also integrated research with practice, which means that the design and implementation of the projects had strong connections to the ongoing work of the librarians and campus constituents. As a result, the assessment activities were situated in everyday practice, giving context and real-world relevance to the work.

Team leader capacity. The AiA team leaders had to develop their capacity of knowing how to best exercise their role in a collaborative activity. Leading a team with diverse perspectives about the institution and a wide range of experiences requires a leadership stance that is more inclusive than what is typically described in traditional, historic definitions. The leadership role most appropriate to these situations is shared leadership. In fact, there is power in shared leadership as "the best team leaders actively encourage leadership contributions from members of the teams. . . . Shared leadership is an extraordinarily valuable resource for accomplishing the full area of leadership functions needed for team effectiveness."[27] Preparing for this role means increasing one's level of self-awareness to capitalize on leadership strengths and invite participation from all team members, using their abilities to the project's best advantage. Rees's model for how to lead work teams asserts that facilitative leadership produces better results for teams by sharing power and decision-making.[28] She posits there is a continuum from a leader being controlling to being facilitative, with a maximum spilt on either side of 80/20. At times, it is appropriate to engage in a more controlling role to direct, set goals, and delegate. At other times, it is more suitable to play a facilitative role by asking questions, building consensus, and empowering others.

> *Leading a team with diverse perspectives about the institution and a wide range of experiences requires a leadership stance that is more inclusive than what is typically described in traditional, historic definitions.*

A benefit of a program like AiA was the structure provided through online professional development and communication, which helped the teams maintain progress from planning to implementation to action-focused results.

> More than anything else, AiA expanded my sense of what's possible in student learning assessment. My campus team's enthusiasm for our project and for working together demonstrated to me that members of the campus community are willing (and in many cases, eager) to partner on assessment projects like this. Through AiA, I was also able to learn about and apply new assessment skills. As a result, I now feel much more capable of tackling large and small-scale assessment projects in my everyday work.[29]

A learning community developed among the librarian team leaders in each cohort and created a means of peer sharing, advice, and feedback. The professional development facilitators were also available for input and guidance as needed. "Team-focused coaching" is one of Hackman's six enabling conditions, and he described its role in this way: "Competent and well-timed team coaching can help a team minimize its exposure to process losses and increase the chances that it will operate in ways that generate synergistic process gains."[30] Many AiA teams morphed as team members changed or participation rates varied. With these changes, group dynamics came into play. The challenges of accommodating a new team member often had more to do with the relationship aspect of group dynamics (i.e., personalities, styles of communication than with the task aspect of group dynamics (i.e., who is doing what work, and the AiA librarians had to be proactive to manage the situation, as reflected by a librarian who commented, "I feel more confident in my ability to take a project from idea to completion and to engage with other professionals on campus to make it work."

A useful model for understanding group dynamics, developed by psychology researcher Tuckman, outlines a four-phase group development process: forming, storming, norming, and performing.[31] Understanding that these phases are common to groups is reassuring when group dynamics feel turbulent. Many AiA teams did face turbulence, especially when group members changed and there were setbacks as momentum was interrupted. This fluidity is a characteristic of contemporary collaboration and teamwork, not yet recognized and understood by many scholars who still focus on the archetypal team with well-defined and stable membership, purpose, and leadership.[32] The leadership qualities identified by the lead librarians that were strengthened through the AiA program were an awareness of the importance of inquiry and decision-making grounded in institutional context, an understanding and experience with the dynamic nature of assessment, a recognition of the personal and professional growth that emerges through collaboration with others, and an appreciation for the missions of different campus units coming together to serve institutional priorities.

Political skills and organizational knowledge. Facilitating a team through a collaborative process requires leadership from the middle and an ability to situate the project's goals within an organization's culture. Questions that the AiA lead librarians typically asked early in the project included these: Who are the right people on campus to talk to? How do I use assessment results? How should we craft a message for different constituent groups? These questions reflect the need to understand the complex, nuanced dynamics of a campus culture.

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The main take away from our involvement with AiA has been assessing what we value, not just valuing what we assess. We understand now that context matters and librarians need to pay close attention to institutional values and how can we add value to them. —AiA team leader, reflective report

The professional development that was part of the AiA program incorporated theory-to-practice activities, scenario building, and role-play exercises, all designed to hone the competencies needed for navigating organizational cultures. The architects of the Wabash study note the value of this competence:

> We believe the next step in developing the necessary scholarship and expertise for assessment is to create mechanisms to systematically train campus assessment leaders in the political skills and organizational knowledge they need to more fully utilize their assessment data. To effectively promote improvements in student learning, it is just as important for assessment leaders to be able to draw on the work of, for example, Kezar (2001) and Kezar and Lester (2009), on facilitating institutional change as it is for them to know the reliability of assessment measures or how to create an E-portfolio.[33]

In each of the three years of the AiA program, the librarian team leaders commented that their leadership competence increased through the professional development and assessment activities that merged research with practice. Again, harkening back to the intent of the AiA grant as a whole, one important goal was to strengthen collaborative relationships with higher education stakeholders, including campus faculty, academic administrators, and assessment officers. Since the project activities were grounded in action research, the focus was on institutional priorities and using the assessment findings to inform and improve academic initiatives in relation to these priorities. To achieve meaningful and sustainable changes, based on assessment results, the lead librarians expanded their capacity to engage their teams in collaborative inquiry and decision-making to advance shared academic goals.

Benefits of a Collaborative Approach

The reflections of AiA librarians reveal that purposefully taking a team-based, collaborative approach to assessment from the start of the project yielded significant benefits. These benefits were realized in the assessment process and the project results.

1. *Generates important conversations.*

Important conversations occur when assessment is collaborative. As a team, the members needed to reach a common understanding about different aspects of the project such as definitions and attributes of academic success and agree on meaningful measures of student learning. For example, What are acceptable measures of academic rapport? Or how are we defining "at-risk" students?

Benefits of a Collaborative Approach:

1. Generates important conversations.

2. Fosters an understanding of the academic contributions of different campus constituents.

3. Encourages assessment that moves beyond one project.

4. Promotes organizational change that is sustainable.

5. Reveals compelling findings with campus-wide significance about student learning and success outcomes.

*By applying DCM [Dynamic Criteria Mapping],
librarians and writing faculty engaged in cross-disciplinary
conversations, developing consensus on what we value when
we read first-year writing projects in light of research skills
and information literacy and reconciling disparate
disciplinary terminology. Our project assists our institution's
goals of assessing components of our general education
program.*[34]

Meaningful assessment required clear articulation and common agreement about the specifics of academic factors and learning attributes that would be measured.

2.   Fosters an understanding of the academic contributions of different campus constituents.

Each team member brought a unique perspective on student learning and how his or her department or campus unit contributes to student learning. Team members expanded their understanding as they learned about the roles and functions of other departments. That is to say, collaborative assessment is a developmental opportunity. Development and growth occurred for team members and team leaders. The collaborative approach also led to important conversations that got to the heart (and complexity) of teaching and learning. Each team member brought experience and a unique viewpoint to the discussion of such topics and issues as (1) core learning outcomes that all undergraduate students should achieve; (2) attributes that define "academic success;" (3) the connection of academic rapport to student learning; and (4) the relationship of classroom learning to career success. As one lead librarian noted, "I believe that the most valuable aspects of this project were the formal and informal conversations and discussions about student learning and assessment. We all learned something new from each other and became more aware how other departments on campus work toward similar goals and face similar challenges." These types of conversations typically had campus-wide implications because the topics discussed addressed issues and concerns applicable to more than one campus unit.

3.   Encourages assessment that moves beyond one project.

Because the collaborations prompt conversations about the contributions of different campus units and their influences on students' academic experiences, assessment becomes contextualized and rich. It is quickly discovered that one project completed by one unit is not sufficient. In fact, the collaborative process tends to generate synergy around assessment. An initial project about the impact of information literacy instruction for psychology majors, for example, might prompt discussion and assessment inquiry about the information literacy competencies of history majors.

*The project has gotten us to think critically about our
instructional practices and the effectiveness of our current
strategies of engaging with disciplinary faculty. It has led to
more questions that we'd like to [have] answers to.* —AiA
team leader, reflective report

4.   Promotes organizational change that is sustainable.

Assessment produces findings, but, as noted earlier, using these findings to

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*Meaningful assessment required
clear articulation and common
agreement about the specifics of
academic factors and learning
attributes that would be measured.*

make changes to existing practices can be difficult. Using a collaborative approach is one means of overcoming this challenge, because the entire assessment process is iterative, building on what is learned at each stage and involving multiple stakeholders. The resulting changes that occur tend to be incremental and well-grounded.

> [O]ur Dean of Faculty has taken a strong interest in our AiA project and wants to discuss how we might adapt the assessment methods used to evaluate information literacy skill development to evaluate the other four core liberal arts skills that make up the backbone of our college's core curriculum.
> —AiA team leader, reflective report

The projects also integrated research with practice, which means that the design and implementation of the projects had strong connections to the ongoing work of the librarians and campus constituents. As a result, the assessment activities were situated in everyday practice, giving context and real-world relevance to the work. A sense of personal responsibility and ownership for the assessment process was fostered because the results led to practical knowledge that had significance and consequences for the team members.

5. *Reveals compelling findings with campus-wide significance about student learning and success outcomes.*

The collaborative, team-based AiA approach frequently revealed compelling findings about library contributions to student learning and success that had campus-wide significance. Deep inquiry with multiple perspectives results in findings that have implications across the campus. For example, where a library may have initially thought it would look at the impact of information literacy in first-year English classes, it found that it was often more useful and significant to consider that impact in terms of general education or a student's first-year experience. In the words of one team leader:

> [L]ibrarians and writing faculty engaged in cross-disciplinary conversations, developing consensus on what we value when we read first-year writing projects in light of research skills and information literacy and reconciling disparate disciplinary terminology. Our project assists our institution's goals of assessing components of our general education program. —AiA librarian

The institutional teams discovered areas of library impact in relation to issues of campus-wide concern, including the first-year experience, general education, retention, and academic rapport.

Sustainable Change through Collaborative Assessment

Much of the literature on collaboration and change within organizations resonates with the benefits discovered about the team-based approach used in the AiA program. Kee has investigated the power of deep engagement with others and sees it as stewardship: "[It] involves creating a balance of power in the organization, establishing a primary commitment to the larger community, having each person join in defining purpose, and ensuring a balanced and equitable distribution of rewards. Stewardship is designed to create a strong sense of ownership and responsibility for outcomes at all levels of the organization."[35]

The collaborative, team-based AiA approach frequently revealed compelling findings about library contributions to student learning and success that had campus-wide significance.

Fletcher's work supports placing value on relationships, context, and connection. She writes of relational practice and identifies four key categories

- Preserving—resolving conflict and disconnection;
- Mutual empowering—sharing information and facilitating connections;
- Self-achieving—using feeling as a source of data and responding to emotional context and others' emotional realities; and
- Creating team—listening, respecting, and responding.[36]

She writes that this work, often performed by people who are not positional leaders and often by women, is "disappeared" and marginalized in organizations.

These kinds of deep collaboration and connections require a personal investment that leaders may mistakenly avoid. Setting out with the intention to take action and to change practice means investing a personal commitment to what psychologist Edgar Schein describes as transformational learning—that is, being able to challenge deeply held assumptions about strategies and processes and, therefore, think and act in fundamentally altered ways. This type of personal and organizational learning and growth happen so rarely. Instead, most people do the same old things in superficially tweaked ways. Yet transformational learning is at the crux of authentic, sustainable change. In an interview, Schein explains that there is "an inherent paradox surrounding learning: Anxiety inhibits learning, but anxiety is also necessary if learning is going to happen at all."[37] He describes two types of anxiety associated with organizational learning: "learning anxiety" and "survival anxiety."

Schein describes how learning anxieties form the "basis for resistance to change" and can be overcome only by "survival anxiety—the horrible realization that in order to make it, you're going to have to change."[38] In Schein's view, learning happens only when survival anxiety is greater than learning anxiety. He explains that leaders can either increase survival anxiety—by threatening people with job loss or taking away rewards—or decrease learning anxiety by creating a safe environment to unlearn old ways and learn new ones. The latter approach tends to be much harder, and many organizations unfortunately prefer the easier route. Learning how to change, then, is not a happy and comfortable process. "The evidence is mounting that real change does not begin until the organization experiences some real threat of pain that in some way dashes its expectations or hopes."[39]

Our colleges and universities are indeed experiencing such real threats that dash expectations and hopes among all campus constituent groups. It is incumbent on all of us to take risks as we learn new ways to "make it" and commit to changing and improving our organizations to better meet student needs. Based on what we learned from the AiA program, we believe working collaboratively to inquire about practice and seek improvements through team-based assessment is the most effective way to move forward. The experiences of AiA teams show that the people in our organizations who are charged with taking on this work require adequate support and an investment from higher-level positional leaders in order to be effective, which resonates with the literature of organization change and leadership.

Based on what we learned from the AiA program, we believe working collaboratively to inquire about practice and seek improvements through team-based assessment is the most effective way to move forward.

Next Steps for ACRL

As the three-year AiA program came to a close, the success of the projects motivated ACRL to identify ways to build on the AiA findings. To better inform our next steps and consistent with our commitment to a collaborative and action learning approach, in late 2015, we began seeking input beyond our own experience with AiA and what we know about the needs of the academic library community. We reached out to expert thinkers outside of libraries to clarify our own deliberations and ideas about future directions. This effort further advanced one of the primary recommendations that emerged from the Value of Academic Libraries Summits in 2011, which was a key impetus for the AiA program: Expand partnerships for assessment activities with higher education constituent groups and related stakeholder groups.[40] We identified higher education associations, organizations, and researchers of interest and invited them to have conversations; our invitations were all received enthusiastically. We scheduled twelve telephone conversations over fall and winter 2015, taking careful notes during each conversation. We had a set of prepared questions for the conversations, but we allowed the conversations to evolve organically based on the person's interests and areas of expertise.

Four broad themes and recurrent patterns emerged from our review of the notes regarding trends in higher education related to data, assessment, research, and campus leadership:

- **Astute use of evidence:** Significant effort within the higher education arena has been focused on collecting, analyzing, and interpreting data, but we now need to know if the yield in student learning improvements is proportional to the effort. Energy is now being directed toward better use of data to make improvements rather than conducting new research. This trend reinforces the value of collaborative approaches to inquiry and decision-making about academic improvements. Different constituent groups on a campus may have data, already collected, that can be merged with other sets of data to reveal findings about student learning and success. Several AiA teams, for example, were able to assess library impact by triangulating library data (e.g., circulation statistics, library use, library instruction participation) with data points related to academic achievement (e.g., GPA, assignment-level grades, persistence from one term to the next). In addition, conducting assessment through the lens of action research keeps the collaborative inquiry, conversations, and decision-making grounded in a real-world, action-oriented approach to academic improvement.

- **Leadership as advocacy**: It is essential to have broad-based leadership that has individuals at multiple institutional levels who know how to use evidence to make improvements within campus programs, departments, and units. These individuals should have the knowledge and competencies to identify and use the appropriate data in collaboration with others on campus. At its core, it's leadership that is shared, participatory, and context-based, resulting in advocacy and campus-wide investment in academic initiatives.

- **Contextual nature of the educational experience:** The emphasis is now shifting to how students are achieving general learning outcomes related to critical thinking across disciplines and through experiences in and out of the classroom. Many students need a rich

Four broad themes and recurrent patterns emerged from our review of the trends in higher education related to data, assessment, research, and campus leadership:

1. *Astute use of evidence;*
2. *Leadership as advocacy;*
3. *Contextual nature of the educational experience;*
4. *Role of higher education in the quality of our national life.*

array of learning experiences to complete a degree. This type of learning cannot be achieved without collaboration among campus units. As noted earlier, the diverse perspectives, expertise, and experiences brought together in the collaborative AiA projects were important to assessing and understanding the nuanced and multi-faceted nature of learning and what kinds of experiences contribute to academic success.

- **Role of higher education in the quality of our national life**: With the increased scrutiny of higher education by governmental entities, the media, the business community, accrediting agencies, and taxpayer advocacy groups, to name just a few, questions are emerging about the value and contributions of higher education to the quality of our national life. David Skorton, Secretary of the Smithsonian Institution, and Glenn Altschuler, the Thomas and Dorothy Litwin Professor of American Studies at Cornell University, have contributed to a Forbes blog about leadership and are clearly strong advocates for the essential role of higher education in our national life:

> *Contemporary colleges and universities, we want to emphasize, have taken on myriad functions and responsibilities in the twentieth and twenty-first centuries. In addition to their traditional roles as custodians and disseminators of knowledge, they are centers of research and discovery; gateways to the professions, providing training and technical expertise; protectors and promoters of prosperity and national security; cultural centers in towns large and small; and outposts for hard thinking about the essential components of a "good life." . . . We believe that robust colleges and universities are essential if the United States is to stimulate research and innovation, spur economic growth, sustain meritocratic values, and search for the defining qualities of beauty, justice, and truth.*[41]

Yet this type of view is not necessarily widely held and, from the conversations we had, the higher education community needs to increase its attention on assessing and documenting the impact of colleges and universities on the education of students broadly. Without question, it's an endeavor that will require consideration of multiple perspectives and entail sustained conversation, deep thinking, and iterative knowledge building.

Final Thoughts

The results of our conversations with these expert thinkers outside of libraries have stimulated our thinking about future directions for professional development within the academic library community as well as how to present the findings of the AiA program to a broader higher education audience. Given all we now know from the AiA teams about collaborative assessment and campus leadership, we are disseminating AiA results to new audiences and through new channels, as with this NILOA occasional paper, and have endeavored to articulate the program's findings in such a way that they will resonate strongly with the broader higher education community and what matters most to colleges and universities.

The higher education community needs to increase its attention on assessing and documenting the impact of colleges and universities on the education of students broadly. Without question, it's an endeavor that will require consideration of multiple perspectives and entail sustained conversation, deep thinking, and iterative knowledge building.

Appendix A: Assessment in Action Program Design

The AiA program design emerged from the discussions at the national summits that ACRL hosted in 2011, funded by the U.S. federal agency the Institute of Museum and Library Services (IMLS) through a Collaborative Planning Grant, in partnership with Association for Institutional Research, the Association of Public and Land-grant Universities, and the Council of Independent Colleges. The summits were attended by teams from twenty two postsecondary institutions, including senior librarians, chief academic administrators, and institutional researchers, for discussions about library impact. Fifteen representatives from higher education organizations and associations also participated in these discussions.[42] Four themes emerged about the dynamic nature of assessment in higher education from the summits:

- Accountability drives higher education discussions.
- A unified approach to institutional assessment is essential.
- Student learning and success are the primary focus of higher education assessment.
- Academic administrators and accreditors seek evidence-based reports of measurable impact.

Details about the summits and the resultant themes and recommendations are in the freely available white paper *Connect, Collaborate, and Communicate: A Report from the Value of Academic Libraries Summits*.[43]

AiA facilitators[44] worked with Etienne Wenger-Trayner and Bev Wenger-Trayner in designing the AiA program, drawing on the concept they developed of communities of practice. Wenger-Trayner and Wenger-Trayner define communities of practice as "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly."[45]

Unlike traditional educational models that spotlight an instructor's central role as the "sage on the stage" with primary authority and content expertise, the AiA blended-learning model emphasized the facilitative role of instructors (i.e., "guide on the side"). AiA participants worked collaboratively in face-to-face sessions, webcasts, and asynchronous online environments to create, share, and build content, processes, and products. This network supported collective learning, shared competence, sustained interaction, and a climate of mutuality and trust. In the process, a strong community of practice developed. The focus on active learning also led to a deeper understanding of what happens when knowledge and skills are applied in practice.

The design of AiA also drew on the concept of action research.[46] Action research is understood as "a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes. . . . it seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities."[47] Key concepts in this definition that were emphasized in the curriculum of AiA are participatory, democratic, and practical solutions.[48]

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1 This paper incorporates material from previous reports about the ACRL program Assessment in Action, cited in note 12. This work is being released simultaneously as a NILOA occasional paper and chapter in the ACRL print publication *Shaping the Campus Conversation on Student Learning and Experience: Activating the Results of Assessment in Action*, which describes the entire AiA program in greater detail. That volume, to be published by ACRL in early 2018, provides context, offers reflections from team leaders, and serves as a culminating capstone for the program.

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[42] Charlie Blaich, an architect of the Wabash Study, was a plenary speaker during the planning summit, and the Wabash Study experiences greatly influenced the design of AiA.

[43] Association of College and Research Libraries, Connect, Collaborate, and Communicate.

[44] AiA design/facilitation team was led by Debra Gilchrist, Vice President for Learning and Student Success, Pierce College, WA; Lisa Janicke Hinchliffe, Coo dinator for Information Literacy and Professor, University of Illinois at Urbana-Champaign; and Kara Malenfant, Senior Strategist for Special Initiatives, Association of College and Research Libraries. Additional designers/facilitators participated throughout the length of the project: April Cunningham, Library Instruction Coordinator at Saddleback College in Mission Viejo, CA; Carrie Donovan, Head of Teaching and Learning for the Indiana University Libraries in Bloomington, IN; Eric Resins, Organizational Effecti eness Specialist in the Libraries at Miami University in Oxford, OH; and John Watts, Undergraduate Learning Librarian at University of Nevada Las Vegas. Libby Miles, Associate Professor of Writing and Rhetoric in the Harrington School of Communication and Media at the University of Rhode Island in Kingston, RI, was part of the facilitation team for the first eighteen months of the program. Project analyst Karen Brown, Professor at the Graduate School of Library and Information Science at Dominican University, IL, worked with the team to analyze and synthesize projects undertaken by the institutional teams.

[45] Etienne Wenger-Trayner and Beverly Wenger-Trayner, "Introduction to Communities of Practice: A Brief Overview of the Concept and Its Uses," Wenger-Trayner website, 2015, http://wenger-trayner.com/introduction-to-communities-of-practice.

[46] Kara J. Malenfant, Lisa Janicke Hinchliffe, and Debra Gilchrist, "Assessment as Action Research: Bridging Academic Scholarship and Everyday Practice," College and Research Libraries 77, no. 2 (March 2016): 140–43, https://doi.org/10.5860/crl.77.2.140.

[47] Peter Reason and Hilary Bradbury, eds., The SAGE Handbook of Action Research, 2nd ed. (London: SAGE, 2006), 1.

[48] For more detail on the AiA program design, see the print volume, Shaping the Campus Conversationon Student Learning and Experience: Activating the Results of Assessment in Action, which describes the entire AiA program in greater detail. The volume, to be published by ACRL early 2018, will include a deeper discussion of the AiA design and include a syllabus for the fourteen-month-long professional development program as an appendix.

About NILOA

- The National Institute for Learning Outcomes Assessment (NILOA) was established in December 2008.
- NILOA is co-located at the University of Illinois and Indiana University.
- The NILOA website contains free assessment resources and can be found at http://www.learningoutcomesassessment.org/.
- The NILOA research team has scanned institutional websites, surveyed chief academic officers, and commissioned a series of occasional papers.
- NILOA's Founding Director, George Kuh, founded the National Survey for Student Engagement (NSSE).
- The other co-principal investigator for NILOA, Stanley Ikenberry, was president of the University of Illinois from 1979 to 1995 and of the American Council of Education from 1996 to 2001.

NILOA Staff

NATIONAL INSTITUTE FOR LEARNING OUTCOMES ASSESSMENT

Stanley Ikenberry, *Co-Principal Investigator*

George Kuh, *Founding Director, Senior Scholar, and Co-Principal Investigator*

Natasha Jankowski, *Director, Co-Principal Investigator*

Gianina Baker, *Assistant Director*

Filip Przybysz, *Communications Coordinator*

Katie Schultz, *Project Manager*

Peter Ewell, *Senior Scholar*

Pat Hutchings, *Senior Scholar*

Jillian Kinzie, *Senior Scholar*

Paul Lingenfelter, *Senior Scholar*

David Marshall, *Senior Scholar*

Erick Montenegro, *Research Analyst*

Verna F. Orr, *Research Analyst*

Jennifer Timmer, *Research Analyst*

Karie Brown-Tess, *Research Analyst*

Theopolies John Moton III, *Research Analyst*

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Lumina Foundation for Education

National Institute for Learning Outcomes Assessment

For more information, please contact:

National Institute for Learning Outcomes Assessment (NILOA)
University of Illinois at Urbana-Champaign
360 Education Building
Champaign, IL 61820

learningoutcomesassessment.org
niloa@education.illinois.edu
Phone: 217.244.2155