Abstract

While scholarship on assessment and evaluation has grown significantly over the past forty years, writing tends to focus on the "how-to" implementation of assessment practices within a classroom or programmatic context. While individual case studies and practical manuals offer valuable contributions for implementation, there is a need for assessment research that supports practices that can highlights interventions to inform practice and positively impact student learning outcomes. To this end, we reviewed scholarly literature to explore the degree to which assessment research discusses and informs student learning. We then performed a content analysis examining how academic research on assessment discusses, analyzes, and evaluates student learning and student success. We identify five specific categories of assessment scholarship and offer implications for future assessment practice and research.



AUTHORS

Marjorie L. Dorimé-Williams, Ph.D. University of Missouri

Cindy Cogswell, Director of Data Strategy New York University

Gianina Baker, Ph.D. University of Illinois

Assessment in Use: An Exploration of Student Learning in Research and Practice

Gurrent literature on assessment is full of examples of practice. Less common are writings exploring the philosophical or theoretical basis of assessment or their direct impact on student learning. The field needs writings connecting theory to practice: we need to know why we are doing what we are doing, whether what we are doing works, and for whom it works. If we can document and communicate a philosophy of assessmentor philosophies of assessment-we can then support informed ways of framing and doing assessment that more effectively meets students' needs. There is a growing need for individuals in postsecondary education to understand what assessment is and develop influential theories, practices, and expectations for assessment to positively impact student outcomes.

Limited research critically examines the impact of assessment practices on students learning and outcomes (Cogswell, 2016). This paper explores the use and understanding of assessment research and its impact on and relationship to student learning through a content analysis of scholarly literature on assessment. Specifically, we examine to what degree academic research on assessment discusses, analyzes, and evaluates student learning and student success. The following questions guided the analysis:

a) What themes are present within various forms of postsecondary assessment in scholarly assessment-focused journals?

b) How does scholarly assessment research attend to student learning?

a. Are there gaps in assessment research with respect to student learning?

CORRESPONDENCE

Email dorimewilliamsm@missouri.edu

Due to its interdisciplinary nature, the term assessment refers to various processes and purposes in postsecondary education. Our rationale for this study and approach is two-fold. First, recent reviews of assessment literature have examined scholarship beginning around 2006 (i.e., Pereira et al., 2016). However, these reviews have not focused on student learning. Second, since the Spellings Commission report's release in 2006 (U.S. Department of Education, 2006), political and public stakeholders in postsecondary education have increasingly called on institutions to demonstrate positive student outcomes (Fuller et al., 2012; Zumeta & Kinne, 2011). This shift has increased institutional attention on assessment practices and student learning. This study presents a meaningful contribution to the broader scholarly and practical discourse on student learning and student success by presenting findings on assessment research and student outcomes. Our study offers an assessment typology that can inform praxis and research as the field moves toward a more student focused approach.

Assessment and Student Learning

Due to its interdisciplinary nature, the term assessment refers to various processes and purposes in postsecondary education. Focusing on a student-centered approach¹ to assessment, Suskie (2009) defines it as follows:

Assessment is the ongoing process of establishing clear, measurable expected outcomes of student learning; ensuring that students have sufficient opportunities to achieve those outcomes; systematically gathering, analyzing, and interpreting evidence to determine how well student learning matches our expectations; using the resulting information to understand and improve student learning. (p. 4).

This framing definition of assessment highlights the centrality of student learning and student outcomes to institutional functioning. Institutions should use assessment of student learning to improve processes (e.g., classroom curriculum, student programming, resource allocation), inform efforts to improve student learning, and respond to regional accreditation requirements (Jankowski et al., 2018). This context also positions student learning at the center of the assessment process. Through the examination of assessment scholarship, we seek to examine the extent to which this perceived relationship is present in the literature and in what ways.

Methods

The purpose of this paper is to examine the results of a content analysis of scholarly literature on assessment and student outcomes. Specifically, we sought to examine the degree to which assessment scholarship directly attended to student learning and student outcomes. The following section defines the data sources, procedures, and data analysis process. We approached this inquiry from a broad perspective to obtain a more thorough and representative sample of research on assessment. We utilized a collaborative approach to improving the reliability and validity of the findings. The original articles were narrowed by reviewing abstracts and keywords to eliminate those that were not specific to assessment in higher education, those that included assessment in the context of testing diagnostic tools, and those that focused on program evaluation rather than students.

Data Sources

Existing literature from assessment and education-related journals were reviewed to define and develop typologies of assessment. The reviews' search parameters included assessment scholarship related to four-year and two-year public and private colleges and universities within the United States. While there is a robust context of assessment scholarship within an international context, there is significantly less literature that examines assessment within the United States context. The journals included in this review were selected because they are (a) recognized as top-tier journals in the field of assessment or postsecondary

¹ The authors acknowledge that there are varied definitions and conceptualizations of "student-centered assessment". For the purposes of this paper, we operationalize student-centered as what supports students best or what students need. We use student-centered as a way to articulate practices that should be focused on students and not simply the institution (e.g., McNair et al., 2016).

education and (b) are used by both researchers and practitioners. With these criteria in mind, we selected the following nine journals for our analysis:

- American Journal of Evaluation
- Assessment and Evaluation in Higher Education
- New Directions for Institutional Research
- The Journal of Case Studies in Accreditation and Assessment
- The Journal of Higher Education
- The Journal of Assessment and Evaluation in Higher Education
- The Journal of Assessment and Institutional Effectiveness
- Research and Practice in Assessment
- Review of Higher Education

Articles were restricted to those published between 2005 and present. Contemporary reviews of assessment literature begin close to 2005 (i.e., Pereira et al., 2016). We searched each of the journals for empirical or scholarly discussions of assessment practices that focused on students in higher education using the search word "assessment." A total of 1,950 articles were included in the initial electronic search. Book reviews, editorials, and other non-scholarly content were not included in the analysis and eliminated from the initial results.

Data Analysis

After the narrowing process, the remaining articles were read and significant themes were articulated based on article topics. The analysis procedures included: (a) establishing summaries of the articles in each journal that fit the criteria; (b) establishing coding categories independently then as a group; (c) individually and collectively revising categories based on each set of articles; and (d) taking steps to improve validity and reliability through triangulation (Bowen, 2009; Eisner, 1991).

Our analysis focused on identifying emergent themes rather than investigating the articles with predetermined categories. We entered this analysis with the goal of using an inductive process to develop themes based on the articles, rather than determining a fixed number of themes. First, article abstracts, or if necessary full articles, were read and re-read to generate initial categories codes (Miles & Huberman, 1994). First-cycle coding methods are the processes that happen during an initial coding of data (Saldaña & Omasta, 2016). Through the first cycle of coding and moving into the second cycle, we utilized exploratory codes. As a check for interrater reliability, we met regularly throughout the coding process to discuss, compare, and contrast preliminary codes and findings. We also reviewed the articles collectively to confirm our individual interpretations of the research focus and codes of each.

After the first round of open coding, we came together to discuss preliminary findings. Next, codes were collapsed by grouping categories that seemed to relate to each other while leaving intact those that stood independent from all others. This process supported the convergence of emerging themes and results. In discussions and check-ins, we explored and defined the parameters of code categories. By allowing categories to develop throughout the analysis process, we were able to build a more exhaustive list of categories that discussed how assessment is addressed within the scholarly literature. Notes were made on articles read by each researcher independently and then were shared to compare themes.

Lastly, themes were compared and contrasted to understand the degree to which they were similar; closely related themes were then further collapsed. At the forefront of this process was the lens of whether the work was student-centered or not. If it was not, we asked what audience or practice was being attended to by the article.

This collaborative reviewing process facilitated a discussion on how we each analyzed the articles and decided on codes and themes. Emerson et al. (1995) assert that "...choice of method reflects researchers' deeper assumptions about social life and how to

By allowing categories to develop throughout the analysis process, we were able to build a more exhaustive list of categories that discussed how assessment is addressed within the scholarly literature. The first distinct category was assessment for measurement... A second category that emerged was the use of assessment as a mechanism to drive policy. understand it" (p. 10). Taylor and Bogdan (1998) posit that "as a qualitative researcher, your role is to capture how people define their world or construct their reality" (p. 52). While each researcher looked at separate journals, we worked collaboratively throughout the inquiry process to improve interrater reliability about what was emerging from the coding analysis. Therefore, each round of independent article review was followed by a collaborative discussion. Conversations with each other and about our emerging findings from the data strengthened the emerging categories.

Positionality

We also recognize that while our collaborative process yielded specific results that we define as categories, future research may produce different conclusions. We acknowledge that our analysis is shaped and informed by our own research and practice in the field of assessment. We each see ourselves as scholar-practitioners. Each author has served in various administrative roles related to assessment in higher education and engaged in the process of research, providing professional development, and scholarly writing related to assessment, accreditation, and student success.

Goodness

Qualitative researchers have used the term *goodness* to indicate quality in qualitative research, similar to *trustworthiness* and *validity* in quantitative research. We aligned our process with elements of goodness as defined by Jones et al. (2013). For consistency, our study was designed around our research questions which guided our data collection and analysis process. Throughout this process, we were informed by our methodological training as well as input and feedback from recognized senior scholars in assessment.

Findings

Five thematic domains emerged from our analysis. These themes were not necessarily aligned to individual articles, but instead focused on what we saw throughout the articles overall. Therefore, more than one theme may be present within the articles we reviewed although our findings use distinct articles to highlight examples present in the themes.

1. Assessment for Measurement

The first distinct category was assessment for measurement. The term assessment was used to encompass ways to measure perceived gains, ability, and demonstrated knowledge–a direct connection to student learning. Articles within this category used the word assessment as a proxy for evaluating performance, knowledge, or gains. Many of the journals included articles that discussed assessment as a tool for measurement or a means of assessing individuals, organizations, or processes. For example, Mansilla et al. (2009) presented research on rubric development and used it to assess student writing. Freed and Mollick (2010) measured students' performative knowledge. *Research and Practice in Assessment* was founded in 2006 as a newsletter. It is now a peer-reviewed publication with a plethora of articles on assessment as measurement. Studies from this journal included a focus on surveys and scales used to measure student outcomes (Pastor et al., 2018), augmenting standardized testing (Gray et al., 2017), measuring students' efforts on assessments (Smiley & Anderson, 2011), and measuring the relationship between student assessment outcomes and other academic performance indicators (Pieper et al., 2008).

2. Assessment for Policy

A second category that emerged was the use of assessment as a mechanism to drive policy. According to Merriam-Webster, policy is "a definite course or method of action selected from among alternatives and in light of given conditions to guide and determine present and future decisions" and "a high-level overall plan embracing the general goals and acceptable procedures especially of a governmental body" (2020). Educational policy refers to the set of guidelines, rules, and principles that are enforced and adopted by campus, local, state, and federal agencies to meet set standards and goals (Adams, 2014; Araya, 2015; Mitchell et al., 2018). Assessment policy, therefore, is described as a set of principles related to any facet of assessment, including but not limited to survey protocol and administration, expectations for

collecting and presenting evidence of student learning, requirements for course evaluation, and accreditors and governmental requirements for transparency (Leathwood, 2005; McDonnell, 1994; Warburton, 2018).

This category also included publications on policy through national, state, and local lenses. It focused on policy from multiple stakeholder perspectives such as the government and educational advocacy groups within higher education. Briggs (2007) discussed how the Association of American Colleges and Universities has pushed back on assessment mandated policy and called for increased collaboration and input from faculty in assessment practices and policy. Price (2019) used policy narratives to explore prior learning assessments and how various groups advocate for or use policy to further specific and sometimes competing agendas. Across articles and journals, we found that scholars presented perspectives that often advocated for an increased agency for postsecondary institutions. They also challenged what faculty and staff may perceive to be overbearing assessment mandates (e.g., periodic, ongoing course-level assessment, alignment between co-curricular and curricular assessments, continuous documented change in response to assessment). In this sense, articles that addressed assessment for policy researched, documented, and defended assessment practices and policies but did not explicitly focus on student learning.

3. Assessment for Improvement

The third category to emerge was assessment as a practice to improve outcomes. *Outcomes* have many definitions; therefore, we use the following, "outcomes can be defined as participant-centered, desired effects of a program, a service, or an intervention. In other words, an outcome is a result you want to achieve following a given activity" (Henning & Roberts, 2016 p. 85). Outcomes relate to both statements of student learning, namely what students will know, be able to do, or what changes will be made to their behavior as a result of the impact of attending postsecondary education. When considering long-term outcomes, the focus attends to what students do after graduation, personally and professionally.

Scholars whose work fell into this category described assessment as a practice for teaching and learning and were often based in specific disciplines. For example, Lusher (2010) examined the practice of improving curriculum design in accounting programs at 102 colleges and universities. Lusher's work, like many in the field, centered on individual course change influencing student performance. Similarly, Barrett (2012) discussed writing in the humanities, improving the ways students demonstrate competency, and examining how students are graded. In addition to focusing on assessment in traditional educational contexts such as elassrooms, courses, and majors, several articles also discussed co-curricular and student affairs practice of assessment. This theme also directly links to our broader discussion on student-centered learning. We found that this literature focused on ways to use assessment data and results to improve teaching and learning practices.

4. Assessment for Equity

Another category that emerged from several articles describing assessment efforts, most noticeably with studies focused on minoritized populations, is that of assessment for equity. Minoritized populations are those who, due to historical, social, economic, cultural, and other forms of bias, discrimination, and oppression, are excluded from dominant social norms and beliefs and, as a result, are believed to be deficient, different, and inferior to the "dominant groups" in society (Harley et al., 2002). The use of power and privilege often results in unequal outcomes for these groups (e.g., racial gaps in college graduation rates). In this context, we define equity as the processes and practices that ensure all students have what they need to successfully access, navigate, and graduate from college.

In these articles, the authors focused on assessment as a method to support student learning by examining differences in learning outcomes for various student populations (i.e., female students, Black students, Latinx students) (Ching, 2018; Jaeger et al., 2017; Ro & Loya, 2015; White & Lowenthal, 2011). While articles in this category share common perspectives on the importance of incorporating diversity and intercultural competency in assessment scholarship, their approaches varied. In many ways, socially just outcomes of student learning are often not the focus when engaging in assessment processes and practices The third category to emerge was assessment as a practice to improve outcomes... Another category that emerged from several articles describing assessment efforts... is that of assessment for equity. The final theme that emerged included scholarship focused on assessment to support change management processes. centered on specific student populations. Similar to our previous theme on student outcomes, the scholarship within this theme focuses primarily on improving the educational experiences and outcomes for students across various communities.

5. Assessment for Change Management

The final theme that emerged included scholarship focused on assessment to support change management processes. Change management is a cycle, including datainformed decision making, implementing policies and practices, and examining the impact of implemented policies and practices (Kotter, 1996). Change management is well aligned with a student-centered assessment process. Again, the assessment cycle includes defining student learning, providing students with learning opportunities to achieve these goals, assessing how well students have achieved those goals, and using assessment results to improve (Suskie, 2009). Institutional leaders who prioritize assessment, articulate its institutional purpose, provide resources and training for faculty and staff, and incorporate assessment into all institutional practices, have had success and demonstrate the relationship between effective change management and successful assessment practices (Lane et al., 2014).

Scholarship in this area covered a variety of educational and institutional practices that illustrate various aspects of Kotter's (1996) change management process. For example, one article discussed a longitudinal analysis of the retention and matriculation of students who completed a first-year seminar course at one institution (Ben-Avie et al., 2012). The course served as an intervention and the researchers *assessed* its impact. This illustrates step seven of Kotter's change management process, both change and a commitment to using assessment to improve on changes and to continue this process as necessary. In another study, Hora et al., (2017) explored the use of educational data by faculty and whether this data use had implications for their practice. Their findings on barriers and supports that influence faculty use of data in their teaching practices can help institutions empower faculty and staff to use assessment data to improve student outcomes. This study demonstrates how step five, empowering action, and other aspects of Kotter's model are present in scholarship on assessment and change management as well as how this research can inform teaching and student learning.

Discussion

We frame the following discussion as both a response to our research questions and an opportunity to examine the current understanding of assessment and student learning from our findings. The purpose of this study was to explore the scholarly use and understanding of assessment and its relationship and impact on student learning. We sought to examine the dialogue on assessment within scholarly journals and to identify potential gaps in the literature with respect to student outcomes. The analysis resulted in five themes that existed across and within the journals in this investigation: assessment for a) measurement, b) policy, c) outcomes improvement, d) equity, and e) change management were common subjects throughout the literature. We discuss the implications of how these themes can or should connect to student learning in postsecondary education. While some assessment approaches and practices where scholars and practitioners can more intentionally focus on students. The following discussion articulates our findings, connects them to the assessment literature writ large, and concludes with limitations of the work and opportunities for future research.

1. Assessment and Measurement

Scholarship reviewed on assessment and measurement demonstrated how choices made about assessment tools and methodological decisions could significantly impact the utility of collected data and the ability of faculty and staff to improve practices and student learning. When appropriately planned, assessment tools that are valid, reliable, and created with student learning experiences in mind can support the measurement of student learning and provide information that allows us to respond in meaningful ways (Cumming & Miller, 2017)

Assessment should be more than Measurement

While the measurement of student learning is essential to improving future outcomes, it is crucial to align measurement appropriately with teaching and learning activities (Biggs & Tang, 2011). Since assessment of student outcomes is not one dimensional, data collection instruments and practices should be informed by the outcomes and students they are intended to measure, not the other way around (Henning & Roberts, 2016). Too often, approaches to assessment center on the tool or instrument that measure students in some way (e.g., survey questions, interview protocols, national surveys) instead of an intentional focus on teaching and learning practices that influence student success. Divorcing the assessment process from the behaviors that guide and shape the student learning experience is evident in much of the literature that discusses assessment as a tool for measurement. However, assessment is not a neutral process. Stakeholders must take intentional steps to ensure that measurement-related issues in assessment are implemented and contextualized appropriately (Dorimé-Williams, 2018; Leathwood, 2005). Future research in this area should attend to how methodological and other choices about measurement can influence what we infer about students and their learning.

2. Assessment Policy

Assessment used to drive policy is an essential topic within the scholarly literature. The articles featured in this study create a space to push back on and critically examine assessment policies and their impact on institutions. Given the expectations, priorities, and goals are from a wide range of internal and external stakeholders, there are numerous and varied forms of policy that can inform and shape assessment practices. While the articles reviewed presented differing voices and perspectives across settings-local, state, and federal-there continues to be a lack of consideration for the real-world impact of competing educational and assessment policy changes on students. Without structure and intentional collaborative (not competitive) planning, policy can develop rapidly, unpredictably, and incoherently when informed by underlying principles or frameworks that are divergent and uninformed (Araya, 2015). Current educational policy, and as a result assessment policy, has become centralized at the state and federal levels. Institutions must respond to political and public pressure to meet policy goals and increasingly rigorous demands (Adams, 2014; Araya, 2015).

Bolstering Student Learning through Policy

Education policy has shaped educational systems and assessment by centralizing control of finances and governance, shifting decision-making to legislators, and championing one-size-fits-all, test-based accountability and assessment for improving student outcomes (Mitchell, 2017). These factors influence postsecondary institutions and highlight how scholarship in this area can better attend to conducting student-centered assessment at our institutions. While policy can be a useful tool for promoting student success, institutions may not always prioritize students' experiences and instead focus on compliance.

Assessment policy should serve the best interest of students. Unfortunately, institutions often fail to provide students with a meaningful seat at the assessment and policy table. Further, including students' needs in our discussions on assessment and assessment policy can shift us from passive instructional to active teaching institutions. Future research should examine the role students' learning needs to play in assessment and policy-making processes. Practitioners should continue to explore how to center students in institutional conversations about assessment and subsequent policies. Assessment policy developed intentionally can have a significant and positive impact on student learning (Moutsis, 2010).

3. Assessment and Outcome Improvement

Significant research is focused on using assessment to improve student outcomes. The term "outcomes" can refer to many different aspects of an institution's efforts across an array of departments and units. While some articles discussed student learning in classroom settings or from a disciplinary perspective, articles on outcomes assessment often fell short of fully completing the assessment cycle. Specifically, they examined initial interventions for student learning but failed to discuss changes to the student environment that would require acting

Assessment policy should serve the best interest of students. Unfortunately, institutions often fail to provide students with a meaningful seat at the assessment and policy table. on their findings. When reflecting on the breadth of potential student outcomes that can be assessed in an institutional setting (e.g., course learning outcomes, co-curricular learning outcomes, career development outcomes), scholars and practitioners need to consider how to evaluate these outcomes, effect change, and put assessment results to good use (Henning & Roberts, 2016; Suskie, 2009).

Increased Focus on Outcome Improvement

By formulating and assessing learning outcomes, we can: create improved learning environments at the course, program, unit, and institutional level; provide increased direction for how to improve teaching activities; inform internal and external stakeholders of our intentions for students; and continue to foster a student-centered institutional process that prioritizes student learning and development (Huba & Freed, 2000). Outcomes assessment provides a tool that allows scholars and practitioners to focus on learning that should result from a specific experience or activity rather than on the activity alone. This approach distinguishes outcomes assessment from more common forms of evaluation in postsecondary education such as course evaluations or satisfaction surveys (Huba & Freed, 2000). Improving student outcomes requires institutions to be explicit about their mission and values. Alignment between the institutional, unit (academic and co-curricular), program, and course levels can again assist in the shift from passive instructional to active learning organizations. This process also contributes to an institution's ability to articulate to external stakeholders and the general public the value and importance of what students achieve through participation in postsecondary education at a specific institution.

4. Assessment and Equity

A more recent area of discussion within the field of assessment focuses on equity and inclusion. Assessment policies and practices can increase access, foster student retention, and contribute to improved persistence to graduation. As was previously discussed, scholarship on equity in assessment examines diverse and marginalized student populations (e.g., Ching, 2018; Jaeger et al., 2017; Ro & Loya, 2015; White & Lowenthal, 2011). This scholarship also reminds us to be mindful of the differential experiences' students have in postsecondary education due to their various identities. Racial, ethnic, gendered, religious, and disability identities are only some of the ways students differ in how they experience their learning environment. Equitable assessment requires scholars and practitioners to recognize that students come to institutions with varied needs and that improving teaching and learning means improving our cultural competency, even in assessment (Dorimé-Williams, 2018; Leathwood, 2005). Assessment scholarship related to issues of equity and diversity calls on us to recognize how the social, cultural, political, and historical norms and practices within an institution shape each student's experience a little differently.

Promoting Equity in Postsecondary Education

Equity in assessment can support improved outcomes for all students in postsecondary education. First, recognizing how each aspect of the assessment cycle can promote or hinder equitable student participation and outcomes can improve the design and administration of assessment tools and practices (Dorimé-Williams, 2018). By being mindful of differences in student populations, assessment can also inform practices and policy that create a better environment for student success (McArthur, 2016). Promoting equity in assessment can also help shift institutional cultures from instructional to learning organizations. By putting all students' needs and learning at the forefront of assessment practices, we can encourage institutions to use assessment activities to foster inclusive learning environments rather than only using assessment for accreditation or compliance purposes (Jankowski et al., 2018).

5. Assessment within Change Management

The steps of change management, when applied to assessment, can offer direction for institutional leaders to improve their cultures of assessment and engage faculty and staff in processes that shift from an instructional to a teaching paradigm initially mentioned by Barr & Tagg (1995). Considering the alignment between change management and assessment practices, scholarship in this area can contribute to positive organizational change centered on student learning. The steps within change management and well-designed assessment process

Promoting equity in assessment can also help shift institutional cultures from instructional to learning organizations.



call for engagement from institutional leaders, using data to inform decisions, implementing policies and practices from those decisions, and continuously evaluating the impact of those policies and practices, specifically for student learning and development (Henning & Roberts, 2016; Kotter, 1996; Suskie, 2009). This vein of scholarship, while not always explicitly stated, can be a tool for those looking to promote learner-centered practices within their institution. Institutional leaders in postsecondary education may not always be equipped with the tools and knowledge to understand the practical importance of assessment for student learning. However, by using change management scholarship, we can speak to the needs of senior leaders while also engaging in intentional, ongoing, learner-centered assessment practices.

Change Management, Assessment, & Institutional Culture

Scholarship on assessment and change management can also provide institutional leaders with information about how to promote institutional change. The steps to change management, just like the assessment process, require support, action, and change, publicizing good work, continuous and persistent improvement, and dedicating resources to enable faculty and staff to engage in these processes meaningfully (Henning & Roberts, 2016; Kotter, 1996; Suskie, 2009). In addition to promoting sustainable assessment practices that contribute to student learning and success, senior leaders can use assessment change management scholarship to drive institutional conversations that encourage investment from faculty and staff. Through this approach, institutional leaders can reduce the conflict, fear, complacency, and apprehension that often accompany change, particularly assessment–informed, institution-wide change (Kotter, 1996).

Limitations

There are several limitations that should be noted for this study. First, content analyses can be limited by the a) research reviewed, b) research that was missed, and c) personal biases and experiences of the researchers. As demonstrated through our positionality statements, including over thirty-six years combined experience in the field, our assumptions were acknowledged and recognized throughout the analysis. However, we recognize that other researchers may draw different conclusions. Second, our research was specific to postsecondary education focused on four-year institutions within the United States. As we previously acknowledge, there is robust literature of assessment research within an international context. Therefore, the generalizability of these findings may be limited to the United States.

Conclusion

Our analysis illustrates the need for assessment scholarship and practice to be informed by theoretical and conceptual frameworks that prioritize students as learners. Without a solid grounding in such theoretical and conceptual frameworks, approaches to assessing student learning can become reactionary, administratively burdensome, and removed from teaching and learning practices. Some critics believe that assessment activities take place at the expense of other efforts focused on individual student learning and achievement and the improvement of teaching (Gilbert, 2019; Gilbert, 2018; Worthen, 2018). We argue that assessment practices should always center on students; and if engaged holistically by informed stakeholders, can lead to institutional improvement that contributes to student learning and success (Ludvik, 2018). Engaging with scholarship on assessment and analyzing practices can help administrators, educators, and practitioners better understand and implement quality assessment across institutions and improve learning within postsecondary education.

Scholarship on assessment must continue to evolve. We hope that the field of higher education moves toward a more student-centric framework that prioritizes teaching and learning in all institutional aspects. Further, equity in assessment scholarship also means that practitioners and educators must recognize their role in advocating for a quality educational experience for students. While articulating and documenting student learning outcomes has been the expected, in some areas required, practice in postsecondary education for over twenty years, many institutional assessment practices are still in nascent stages at colleges and universities across the country. Scholarly research on the assessment of student learning, and its association with accreditation, accountability, and promoting student success, is an Our analysis illustrates the need for assessment scholarship and practice to be informed by theoretical and conceptual frameworks that prioritize students as learners. essential foundation for comprehending the evolution of modern assessment practices. This foundation can provide the context for new assessment practices and frameworks that center student learning and support for an environment that fosters student success for all.

References

- An Adams, P. (2014) *Policy and Education*. [VitalSource Bookshelf]. Routledge. <u>https://bookshelf.vitalsource.com/#/books/9781136492990/</u>
- Araya, D. (2015). [VitalSource Bookshelf]. Palgrave Macmillan. https://bookshelf.vitalsource.com/#books/9781137475565/
- Barr, R. B., & Tagg, J. (1995). From teaching to learning-A new paradigm for undergraduate education. *Change*, 27(6), 12. https://doi.org/10.1080/00091383.1995.10544672
- Barrett, J. M. (2012). Writing assessment in the humanities: Culture and methodology. Journal of Assessment and Institutional Effectiveness, 2(2), 171-195. Penn State University Press. <u>https://www.jstor.org/stable/10.5325/jasseinsteffe.2.2.0171</u>
- Ben-Avie, M., Kennedy, M., Unson, C., Li, J., Riccardi, R. L., & Mugno, R. (2012). First-year experience: A comparison study. Journal of Assessment and Institutional Effectiveness, 2(2), 143-170. <u>https://doi.org/10.5325/jasse insteffe.2.2.0143</u>
- Biggs, J., & Tang, C. (2011). Teaching for quality learning at university. Open University Press.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27-40. https://doi.org/10.3316/QRJ0902027
- Braskamp, L. A., & Engberg, M. E. (2014, February). *Guidelines to consider in being strategic about assessment*. National Institute for Learning Outcomes Assessment. <u>https://www.learningoutcomesassessment.org/wp-content/uploads/2019/08/Viewpoint-BraskampEngberg.pdf</u>
- Briggs, C. L. (2007). Curriculum collaboration: A key to continuous program renewal. Journal of Higher Education, 78(6), 676-711. <u>https://doi-org.proxy.library.ohio.edu/10.1353/jhe.2007.0036</u>
- Ching, C. D. (2018). Confronting the equity "learning problem" through practitioner inquiry. *The Review of Higher Education*, 41(3), 387-421. <u>https://doi.org/10.1353/rhe.2018.0013</u>
- Cogswell, C. A. (2016). *Improving our improving: A multiple case study analysis of the accreditor-institution relationship* [Doctoral dissertation, Indiana University]. ProQuest Dissertations Publishing.
- Cumming, T., & Miller, M. D. (2017). Enhancing assessment in higher education: Putting psychometrics to work. Stylus Publishing.
- Dorimé-Williams, M. L. (2018). Developing socially just practices and policies in assessment. *New Directions for Institutional Research*, 177, 41-56. <u>https://doi.org/10.1002/ir.20255</u>
- Eisner, E. W. (1991). The enlightened eye: Qualitative inquiry and the enhancement of educational practice. Collier Macmillan Canada.
- Emerson, R., Fretz, R., & Shaw, L. (1995). Writing ethnographic fieldnotes. University of Chicago Press.

- Freed, R., & Mollick, G. M. (2010). Using prior learning assessment in adult baccalaureate degrees in Texas. *Journal of Case Studies in Accreditation and Assessment*, 1, 1-14. <u>https://www.aabri.com/manuscripts/08081.pdf</u>
- Fuller, C., Lebo, C., & Muffo, J. (2012). Challenges in meeting demands for accountability. In R. Howard, W. Knight, & G. McLaughlin (Eds.), *The handbook of institutional research*, (pp. 299-309). Jossey-Bass.
- Gilbert, E. (2019, March). Assessment is an enormous waste of time. *The Chronicle of Higher Education*. https://www.chronicle.com/article/Assessment-Is-an-Enormous/245937
- Gilbert, E. (2018, January). An insider's take on assessment: It may be worse than you thought. *The Chronicle of Higher Education*. <u>https://www.chronicle.com/article/An-Insider-s-Take-on/242235</u>
- Gray, J. S., Brown, M. A., & Connolly, J. P. (2017). Examining construct validity of the quantitative literacy value rubric in college-level stem assignments. *Research & Practice in Assessment*, *12*, 20-31. <u>http://www.rpajournal.com/examining-construct-validity-of-the-quantitative-literacy-value-rubric-in-college-level-stem-assignments/</u>
- Harley, D. A., Jolivette, K., McCormick, K., & Tice, K. (2002). Race, class, and gender: A constellation of positionalities with implications for counseling. *Journal of Multicultural Counseling and Development*, 30(4), 216-238. <u>https://doi.org/10.1002/j.2161-1912.2002.tb00521.x</u>
- Henning, G. W., & Roberts, D. (2016). Student affairs assessment: Theory to practice. Stylus Publishing, LLC.
- Hora, M. T. Bouwma-Gearhart, J., & Park, H. J. (2017). Data driven decision-making in the era of accountability: Fostering faculty data cultures for learning. *Review of Higher Education*, 40(3), 391-426. <u>https://doi.org/10.1353/ rhe.2017.0013</u>
- Huba, M. E., & Freed, J. E. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Allyn and Bacon.
- Jaeger, A. J., Hudson, T. D., Pasque, P. A., & Ampaw, F. D. (2017). Understanding how lifelong learning shapes the career trajectories of women with STEM doctorates: The life experiences and role negotiations (LEARN) model. *The Review of Higher Education*, 40(4), 477-507. <u>https://doi.org/10.1353/rhe.2017.0019</u>
- Jankowski, N. A., Timmer, J. D., Kinzie, J., & Kuh, G. D. (2018). Assessment that matters: Trending toward practices that document authentic student learning. National Institute for Learning Outcomes Assessment. https://eric.ed.gov/?id=ED590514
- Jones, S. R., Arminio, J. L., & Torres, V. (2013). Negotiating the complexities of qualitative research in higher education: Fundamental elements and issues (2nd ed.). Routledge.
- Kotter, J. P. (1996). Leading change. Harvard Business School Press.
- Lane, M. R., Lane, P. L., Rich, J., & Wheeling, B. (2014). Improving assessment: Creating a culture of assessment with a change management approach. *Journal of Case Studies in Accreditation and Assessment*, *4*, 1-11. <u>https://www.aabri.com/manuscripts/141949.pdf</u>
- Leathwood, C. (2005). Assessment policy and practice in higher education: Purpose standards and equity. Assessment & *Evaluation in Higher Education*, 30(3), 307-324. <u>https://doi.org/10.1080/02602930500063876</u>
- Ludvik, M. J. B. (2018). Outcomes-based program review: Closing achievement gaps in and outside the classroom with alignment to predictive analytics and performance metrics. Stylus Publishing, LLC.
- Lusher, A. L. (2010). Assessment practices in undergraduate accounting programs. *Journal of Case Studies in* Accreditation and Assessment, 1, 1-20. <u>https://www.aabri.com/manuscripts/10550.pdf</u>
- Mansilla, V. B., Duraisingh, E. D., Wolfe, C. R., & Haynes, C. (2009). Targeted assessment rubric: An empirically grounded rubric for interdisciplinary writing. *Journal of Higher Education*, 80(3), 334-353. <u>https://doi-org.proxy. library.ohio.edu/10.1080/00221546.2009.11779016</u>
- Merriam-Webster. (n.d.). *Merriam-Webster.com dictionary*. Retrieved May 15, 2020, from <u>https://www.merriam-webster</u>. <u>com/dictionary/policy</u>
- McArthur, J. (2016). Assessment for social justice: The role of assessment in achieving social justice. Assessment & Evaluation in Higher Education, 41(7), 967-981, DOI: 10.1080/02602938.2015.1053429
- McDonnell, L. M. (1994). Assessment policy as persuasion and regulation. *American Journal of Education*, 102(4), 394-420. <u>https://www.jstor.org/stable/1085462</u>
- McNair, T. B., Albertine, S., Cooper, M. A., McDonald, N., & Major, T., Jr. (2016). Becoming a student-ready college: A new culture of leadership for student success. John Wiley & Sons.

- Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: A sourcebook of new methods (2nd ed.). Sage.
- Mitchell, D. E., Shipps, D., & Crowson, R. L. (Eds.). (2018). Shaping education policy: Power and process. (2nd ed.). Routledge.
- Moutsios, S. (2010). Power, politics, and transnational policy-making in education. Globalisation, Societies and Education, 8(1), 121-141. https://doi.org/10.1080/14767720903574124
- Pastor, D. A., Ong, T. Q., & Orem, C. D. (2018). Categorizing college students based on their perceptions of civic engagement activities: A latent class analysis using the social agency scale. Research & Practice in Assessment, 13, 5-21. http://www.rpajournal.com/categorizing-college-students-based-on-theirperceptions-of-civic-engagement-activities-a-latent-class-analysis-using-the-social-agency-scale/
- Pereira, D., Flores, M. A., & Niklasson, L. (2016). Assessment revisited: A review of research in Assessment and Evaluation in Higher Education. Assessment & Evaluation in Higher Education, 41(7), 1008-1032. https://doi.org/10.1080/02602938.2015.1055233
- Pieper, S. L., Fulcher, K. H., Sundre, D. L., & Erwin, T. D. (2008). "What do I do with the data now?": Analyzing assessment information for accountability and improvement. Research & Practice in Assessment, 3, 4-10. http://www.rpajournal.com/what-do-i-do-with-the-data-now-analyzing-a-comparison-of-testingconditions-and-the-implications-for-validity/
- Price, M. H. (2019). Strategic stories: Analysis of prior learning assessment policy narratives. The Review of Higher Education, 42(2), 511-535. https://doi.org/10.1353/rhe.2019.0005
- Ro, H. K., & Loya, K. I. (2015). The effect of gender and race intersectionality on student learning outcomes in engineering. The Review of Higher Education, 38(3), 359-396. https://doi.org/10.1353/rhe.2015.0014
- Saldaña, J., & Omasta, M. (2016). Qualitative research: Analyzing life. Sage Publications.
- Smiley, W., & Anderson, R. (2011). Measuring students' cognitive engagement on assessment tests: A confirmatory factor analysis of the short form of the cognitive engagement scale. Research & Practice in Assessment, 6, 17-28. http://www.rpajournal.com/measuring-students-cognitive-engagement-on-assessment-tests-aconfirmatory-factor-analysis-of-the-short-form-of-the-cognitive-engagement-scale/
- Suskie, L. (2009). Assessing student learning: A common sense guide. (2nd ed.). Jossey-Bass.

Taylor, S., & Bogdan, R. (1998). Introduction to qualitative research methods: A guidebook and resource. Wiley.

- U.S. Department of Education. (2006). A Test of Leadership: Charting the Future of U.S. Higher Education. https://www2.ed.gov/about/bdscomm/list/hiedfuture/reports/pre-pub-report.pdf
- Warburton, E. C. (2018). Toward trust: Recalibrating accreditation practices for postsecondary arts education. Arts Education Policy Review, 119(1), 36-41. https://doi.org/10.1080/10632913.2016.1189864
- White, J. W., & Lowenthal, P. R. (2011). Minority college students and tacit "codes of power": Developing academic discourses and identities. The Review of Higher Education 34(2), 283-318. https://doi.org/10.1353/ rhe.2010.0028
- Worthen, M. (2018, February 23). The misguided drive to measure 'learning outcomes.' The New York Times. https://www.nvtimes.com/2018/02/23/opinion/sundav/colleges-measure-learning-outcomes.html
- Zumeta, W., & Kinne, A. (2011). Accountability policies: Directions old and new. In D. E. Heller (Ed.), The states and public higher education policy: Affordability, access, and accountability, (pp. 173-199). Johns Hopkins University Press.

