Ignorance is Not Bliss: Implementation Fidelity and Learning Improvement

January 2016

Sara J. Finney & Kristen L. Smith

As higher education faculty and administrators, we aim to implement established or encouraging learning practices, pedagogy, and programming that result in our campuses being effective learning environments. We engage in outcomes assessment to evaluate and enhance educational programming with respect to student learning (Figure 1). Yet, Banta and Blaich (2011) reported few institutions use outcomes assessment data to change programming and subsequently demonstrate improved student learning.

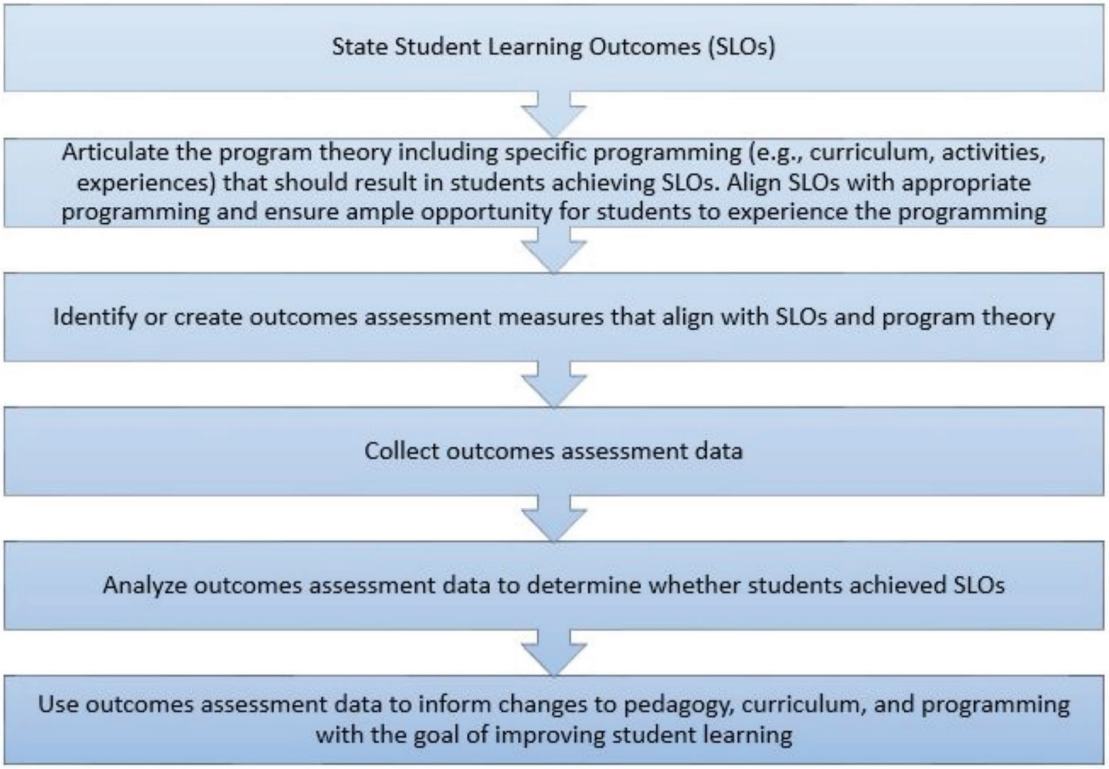

Figure 1. Typical Outcomes Assessment Process

One reason for the lack of use of outcomes assessment data for learning improvement is that these data alone are insufficient. We agree with Hutchings, Kinzie, and Kuh (2015): "Assessment that is truly focused on improving students' educational experiences means putting a premium on evidence. It also means being smart about what

constitutes evidence and how to use it effectively." Outcomes assessment data – on their own – have limited utility. That is, if SLOs are not met, we are in the difficult position of answering "why" and making evidence-based changes to programing that will increase learning in the future. Nonetheless, outcomes data simply indicate *if* the outcomes were (not) met, not *why*. Thus, we argue that "evidence" must include implementation fidelity if evidence-based changes to educational programming and improved student learning are our goals.

If students don't experience activities and curriculum deemed necessary to learn concepts and develop skills, we shouldn't be surprised when outcomes data suggest learning hasn't occurred.

"The bridge between a promising idea and the impact on students is implementation, but innovations are seldom implemented as intended" (Berman & McLaughlin, 1978, p. 349). Implementation fidelity data demonstrate the extent to which the designed programming was implemented as intended, allowing for determinations on how the designed programming differed from the programming students actually experienced (e.g., Gerstner & Finney, 2013). In short, if students don't experience activities and curriculum deemed necessary to learn concepts and develop skills, we shouldn't be surprised when outcomes data suggest learning hasn't occurred. Furthermore, we can't change programming to increase learning if we don't know what programming was implemented. As we better understand the programming students actually experienced, and thus better understand the programming we actually assessed, we can make more intentional, informed, effective program changes that contribute to demonstrably improved student learning (e.g., Fisher, Smith, Finney, & Pinder, 2014).

Implementation fidelity is represented by five components (Figure 2). Program differentiation, the most important component, aligns with the second step of the outcomes assessment process: program theory is specified and corresponding curriculum and learning experiences are developed and mapped to SLOs. Engaging in program differentiation helps us better conceptualize and refine our program theory, which subsequently helps us implement intentional learning interventions. It affords dedicated time to discuss pedagogical techniques, best practices we have successfully implemented in our classes, and potential barriers to student learning (an invaluable faculty development opportunity). The remaining implementation fidelity components involve collecting data that provide insight into what students actually experienced (e.g., Swain, Finney, & Gerstner, 2013).

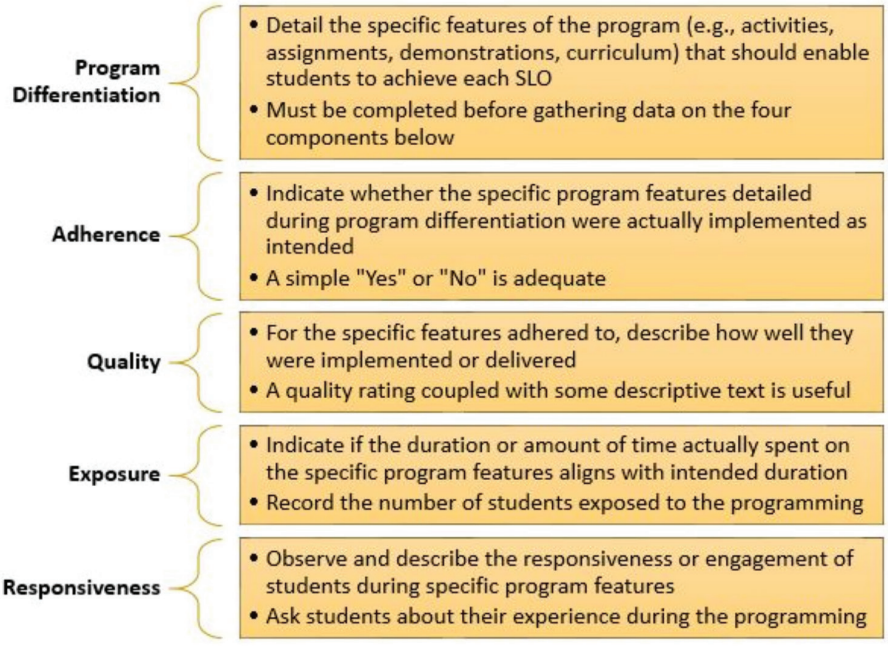

Figure 2. Five Components of Implementation Fidelity

Coupling implementation fidelity and outcomes data can improve inferences about program impact on student learning (e.g., O'Donnell, 2008). If the designed programming wasn't implemented, the outcomes assessment data reflect nothing about the designed programming (Figure 3). However, without implementation fidelity data, it is unclear what programming was implemented and thus what inferences are valid. Often, we assume designed programming was implemented and (invalid) inferences from outcomes data are subsequently made about programming.

Without implementation fidelity data, it is unclear what programming was implemented and thus what inferences are valid

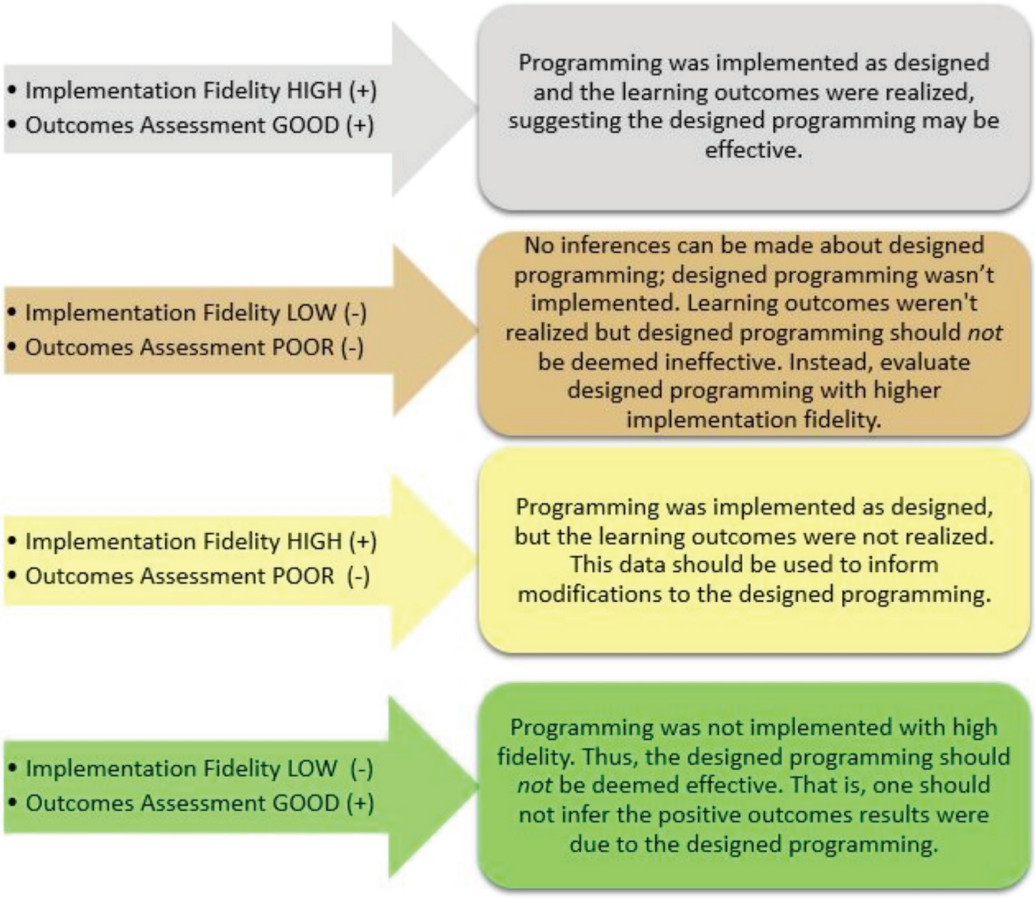

Figure 3. Interpretations when Pairing Outcomes Assessment and Implementation Fidelity Data

As you strive to make informed program changes and demonstrably improve student learning on your campus, consider the following strategies:

- Meet with faculty involved in creating and implementing programming to discuss implementation fidelity—what it is, why it's important. This discussion validates the tremendous effort expended creating the programming and acknowledges that students must have the opportunity to receive the programming as designed.

- Even if data can't be collected immediately regarding all aspects of implementation fidelity, engaging in Program Differentiation is critical to learning improvement. If the program theory isn't articulated in terms of specific curriculum and activities that should result in students' achieving the SLOs, then implementation fidelity can't be assessed and outcomes data have limited utility. Engaging in Program Differentiation requires faculty to communicate explicitly about programming, which should increase the likelihood that the designed programming is delivered.

- Emphasize learning improvement. Outcomes assessment is most useful when it identifies both effective and ineffective learning experiences. If the goal of increasing student learning is kept at the forefront, the need for implementation fidelity data is obvious.

- Don't wait to collect implementation fidelity data. Implementation fidelity and outcomes data don't need to be collected together. Once SLOs and programming have been specified and mapped, implementation fidelity can be evaluated while examining/creating outcomes assessment measures. In fact, we encourage evaluation of implementation fidelity before gathering outcomes data. If programming isn't implemented with high fidelity, outcomes data are useless for making inferences back to designed programming; thus, it may be most resourceful to wait to collect outcomes data after implementation issues have been identified and addressed.

If the goal of increasing student learning is kept at the forefront, the need for implementation fidelity data is obvious.

References

Banta, T., & Blaich, C. (2011). Closing the assessment loop. *Change: The Magazine of Higher Learning, 43*(1), 22-27.

Berman, P., & McLaughlin, M. W. (1978). *Federal programs supporting educational change, Vol. VIII: Implementing and sustaining innovations*. Santa Monica, CA: Rand.

Fisher, R., Smith, K.L., Finney, S.J., & Pinder, K. (2014). The importance of implementation fidelity data for evaluating program effectiveness. *About Campus, 19*, 28-32.

Gerstner, J. J., & Finney, S. J. (2013). Measuring the implementation fidelity of student affairs programs: A critical component of the outcomes assessment cycle. *Research and Practice in Assessment, 8*, 15 – 28.

Hutchings, P., Kinzie, J., & Kuh, G. (2015). *Evidence of student learning: What counts and what matters for improvement*. National Institute for Learning Outcomes Assessment: Guest Viewpoints. Retrieved from https://learningoutcomes.web.illinois.edu/wp-content/uploads/2019/08/Viewpoint-HutchingsKinzieKuh.pdf

O'Donnell, C. L. (2008). Defining, conceptualizing, and measuring fidelity of implementation and its relationship to outcomes in K-12 curriculum intervention research. *Review of Educational Research, 78*, 33–84.

Swain, M. S., Finney, S. J., & Gerstner, J. J. (2013). A practical approach to assessing implementation fidelity. *Assessment Update, 25*(1), 5-7, 13.

National Institute for Learning Outcomes Assessment

Please Cite As:

Finney, S. J., & Smith, K. L. (2016, January). *Ignorance is not bliss: Implementation fidelity and learning improvement.* Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA).

Follow us on social media:

@NILOA_web

@LearningOutcomesAssessment

Sign up to receive our monthly NILOA Newsletter and stay up to date with our research and publications.