A Brief Guide to Practically Applying Program Theory (PT) and Implementation Fidelity (IF) to Assessment Practices for Cultivating Learning Outcome Achievement Terri Flateby, Ph.D, tlflateby@gmail.com

When planning to guide modified program theory and implementation fidelity practices, begin with an academic program's, a student affairs unit's, or an institution's outcome of concern. Guide the program or unit to introduce program theory for constructing an effective intervention or plan to address this outcome of concern by consulting scholarship or theory related to fostering the outcome, essential to this process. The scholarship or theory will be used to develop a plan of action or intervention with sufficient details and a timeline to achieve the outcome and might provide direction for more clearly articulating the outcome.

A second essential component in this process is creating a tool or a process to determine if the plan/intervention developed was applied or implemented as planned.

Finally, guide a comparison of implementation fidelity and outcome evidence to determine if the outcome was reached and if the intervention or plan produced the desired results for the aggregated group and/or relevant subgroups. This process also should enable the program to identify weaknesses and make changes.

Step 1: Identify an Outcome of Interest or Concern

Outcome could be one with less than desired performance or one needing to be introduced in the curriculum.

Step2: Clearly Articulate Outcome After reviewing scholarship, revision may be necessary.

Outcome targeted should be specifically written and accurately reflect **expectations** at the completion of the program/intervention. Specifically written outcomes have a better chance of:

- being widely understood by students, faculty, and student affairs practitioners
- contributing to the cultivation of specific outcome components

 enabling the construction/selection of effective measures to determine outcome achievement and components needing improvement

Use SMART (Specific, Measurable/observable, Attainable, Relevant/essential, Timebound) guidelines to develop/refine outcome of interest or concern.

Preliminary to Step 3: Collaborate with other relevant units, librarians, or teaching/learning centers to help academic programs and student affairs units **identify and select** scholarship related to effective strategies for fostering the outcome(s):

Step 3: Assist programs/units with selecting scholarship or theory, such as student development theory, to foster outcomes in their specific contexts. Collaborations will help with this step. Explore the use of Artificial Intelligence with this search.

Step 4: Guiding the *development of programming/an intervention* based on research or theory. Encourage programs or units to *identify or develop key* **methods/strategies/materials** that are most appropriate to sequentially develop outcomes in their program/units and specific contexts. Suggest programs or units consider factors that impact strategy application to develop outcome with questions such as:

- Are there **constraints** within the context of the department/division/or unit that limit or shape applicable strategies, e.g., intensely political, fierce independence?
- How might the **desired learning/outcome** achievement level and time available affect the strategies selected, the **frequency/length** of **engagement with the methods/strategies** selected?

Step 5: Guide selection or construction of outcome assessment measures rubrics and objective measures - with acceptable guidelines to accurately measure all elements of outcome. To gauge **improvement**, measure outcome prior to applying strategies selected from scholarship. If **attainment of the outcome at a specific level** is the desired outcome or to gauge improvement, well-constructed direct measures/tools are essential.

Assessment tools (or at least one) should be developed or selected by using recognized **performance-based or objective test construction guidelines**. Huba and Freed, 2000 present a clear approach for constructing rubrics and Haladyna, et al., 2002 discuss useful research related to developing an effective plan, Table of Item Specifications/Test Blueprint, for guiding objective measures that align well with outcomes, and Downing & Haladyna, 2006 present item-writing guidelines. Supplemental evidence might include classroom-based, more informal indirect, tools also are appropriate, such as minute papers, muddiest point, concept maps, directed paraphrasing, and documented problem solving, Angelo and Cross, 1993.

Step 6: Guide the construction of a fidelity "tool" or other method to document **adherence/implementation** of relevant strategies selected for program theory planning based on scholarship that contributes to outcome achievement.

Documentation of intervention implementation is an essential step to determine if programming/intervention contributed to the desired results; however, this step should not be punitive or threatening.

Potential tool/method examples:

- modification of IF Tool/Checklist with programming/plan details included, to be completed by faculty, staff delivering intervention, or students
- program intervention reflection written by individual faculty members, academic programs, or student affairs units
- faculty, staff, and/or students' responses to intervention delivery questions or checklist

If a document such as the program intervention reflection is chosen, assessment practitioners should consider planning an approach for gaining support for acceptance in the faculty/student affairs reward/evaluation structure. **Step 7: Facilitate comparisons of learning (or other assessment) results** to the implementation **fidelity evidence** developed in the fidelity tool/method Step 6: This step will enable programs and units to judge the **success of the**

strategies based on scholarship that were implemented, demonstrate effective program development, and provide more credible evidence of intervention effectiveness.

This step should separate results for relevant subpopulations. Collaborations with offices, faculty, or others with data analytics expertise may be necessary.

Angelo, T. & Cross, P. (1993). Classroom Assessment Techniques: A Handbook for College Teachers. San Francisco, CA: Jossey-Bass, a Wiley Imprint.

Downing, S.M. & Haladyna, T.M. (2006). Handbook of Test Development. Lawrence Erlbaum Associates, Publishers: Mahwah, New Jersey.

Finney, S.J. & Horst, S. J. (2019). Standards, standards, standards: Mapping professional standards for outcomes assessment to assessment practice. *Journal of Student Affairs Research and Practice.*, *56*, 320-325.

Finney, S. J., Wells, J. B., & Henning, G. W. (2021, March). *The need for program theory and implementation fidelity in assessment practice and standards* (Occasional Paper No. 52). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA).

Fulcher, K.H., & Prendergast, C.O. (2021). Improving Student Learning at Scale. Sterling, VA: Stylus.

Haladyna, T.M., Downing, S.M., & Rodriguez, M.C. (2002). A Review of Multiple-Choice Item-Writing Guidelines for Classroom Assessment. *Applied Measurement in Education*, 15(3), 309-344.

Huba, M.E., Freed, J.E. (2000). Learner-Centered Assessment on College Campuses, Boston, MA: Allyn and Bacon.