Practical Application of Program Theory and Implementation Fidelity in Academic Programs and Student Affairs Units,
(Simplify while maintaining essential components)

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Do you identify with:

- Academic Affairs?

- Student Affairs?

- Both?

Is your primary role focused on:

- Maximizing/Improving Student Learning?

- Providing Evidence for Accreditation?

- Both?

In this session do you hope to:

- Learn more about program theory and implementation fidelity practices?

- Learn about and discuss their benefits?

- Discuss adaptations for practically applying these practices in resource constrained institutions?

- Collect ideas for practically applying program theory and implementation fidelity in your institutions and learn from attendees?

- Other, please include

Basic Definitions of Program Theory and Implementation Fidelity

Program theory (PT) is the systematic development of a detailed and specific intervention/plan based on research or theory (such as student development) to foster an outcome of interest or concern.

Implementation fidelity (IF) is a process or tool developed and used to determine if the intervention/programming was delivered as planned.

Assessment Cycle with PT and IF

Develop **mission statement** to address purpose, primary activities, and whom the program serves
Develop Goals

Select, develop, or revise measurable and achievable **learning outcomes**

Select research/theory to develop detailed programming for each outcome (program theory)
Develop tool(s) to determine if programming followed (Implementation Theory)

Program adjusts programming to address weaknesses and strengths (may include measurement tools)

Analyze aggregated and disaggregated assessment results to determine outcome achievement and inform programming
Compare fidelity and outcome evidence

Select or develop measures that provide information about outcome achievement and progress

Measure learning outcomes

1st Iteration
Subsequent Iterations

Adapting Program Theory and Implementation Fidelity as Presented in Journals - Discuss

Processes	In Journals	Adapted
Program Theory: **Programming planned using research or theory to impact an outcome of concern**	Has horizontal and vertical impact in program and improvement focus Carefully constructed and detailed intervention from scholarship or theory	
Implementation Fidelity: **Programming applied as planned**?	Detailed tool often applied during multiple class sessions by trained observers to determine if the detailed intervention is applied as planned	

Reason this session is focused on:
Exploring Modified Program Theory and Implementation Fidelity Processes with Assessment*

Concern 1: As presented in scholarship, PT and IF are resource intensive for some or most institutions

However, they have **potential** when modified for a program or unit with outcome of concern

Have you observed resource intensity in articles? Discuss

*Emphasize the integration of PT/IF/Assessment practices – why both?

Assumptions for Ideal or "At Scale" Program Theory and Implementation Fidelity/Process often Described in Articles

Horizonal and Vertical impact –All students - outcomes developed progressively in a program or unit

Improvement, not change, oriented - baseline required

Clear, specific, widely understood, student learning outcome(s) that are malleable in the time available (SMART)

Measures constructed follow **acceptable measurement guidelines (consult** references)
- ◦ Valid for uses of results
  - ◦ Align with the outcome of interest
  - ◦ Information for determining growth/improvement and outcome features needing attention
- ◦ Produce reliable evidence
  - ◦ Repeatable regardless of scorers or context

Timeline for **"at scale"** process – 5 years suggested due to support and resources needed

Programming is typically **detailed** and expected to be **applied in all sections/sessions**

Typically, a detailed table (tool) is developed and applied by trained observers in a substantial number of each instructor's class sessions or all Student Affairs session events

Resource intensive – time and extent of collaboration

Based on previous slide

- In small groups 4-5

- Which elements/steps seem daunting/resource intensive?

- Which seem necessary?

- So, why are we pursuing?

- Share groups' responses and identify similarities and differences

Daunting Nature of PT and IF in Journals

- Extremely resource intensive - overwhelming

- Five years dedicated to building and implementing program theory and implementation fidelity for an outcome in a program

- Detailed programming built from research or theory demonstrating or suggesting ability to foster selected outcome (PT)

- Detailed tool to determine if programming/plan applied precisely (IF)

- Support needed from chair and faculty or Student Affairs leader and staff to introduce PT and IF

- Is closer to research than assessment practices

Potential Benefits of Practically Applying PT and IF with Assessment Results

Can Enable:

- **Effective program planning and decision-making based on** research-based scholarship or theory to cultivate outcome of interest

- **More proactive assessment processes**
  - Programs or units to **provide credible evidence to support claim that curriculum, instruction, and/or** programming positively impacts or impacted the outcome of interest
  - The assertion that **implemented intervention strategies or program plans:**
    - Were or were not implemented as planned
    - Contributed to change/improvement
    - Did not achieve the desired results

- Building collaborations

Other reasons? Discuss why you might introduce PT and IF at your institutions

Much **less emphasis is on the reporting structure and only measuring outcomes, refocusing on evidence-based programming to cultivate outcome(s) or correct a problem, and determine if programming worked!**

Suggestions for Modifying PT and IF in a Supportive, Non-directive, and Collaborative Environment

Collaborations and partnerships are essential

Guide articulation of **clear description of the outcome** needing to be addressed (new or to be improved), ensure:

Can the problem or outcome be **impacted**?

In the length of **time allotted**?

If so, **Guide, possibly with AI**

Selection of research or theory (learning or student development) to identify contributors/effective strategies associated with cultivating outcome (AI)

Intervention development from scholarship of effective strategies and/or literature from theory and and includes a specific plan to foster targeted outcome (AI)

Construct measures with acceptable measurement guidelines

Appropriate/"Valid" for uses of results, and:

Align with the outcome of interest

Supply information for determining growth/improvement and outcome features needing attention

Produce **consistent/"reliable"** evidence

Develop tool to determine if programming is being delivered as planned

Compare the above evidence with outcome evidence

Issue Related to Modifying Program Theory and Implementation Fidelity Processes with Assessment*

Issue 2: A recent focus is on Implementation Fidelity – However, Program Theory addresses many concerns about current assessment processes – beginning in the 1980's with a divide in approaches when it was called a "movement:"

1. Emphasis on data and reporting, especially for external stakeholders, and initially accountability, or
2. Emphasis on fostering learning/student learning outcomes

Let's not repeat by concentrating on collecting data without using program theory for developing programming or intervention to foster an outcome.

Although both purposes are important, assessment practitioners struggle more with #2.

Discuss reasons for applying both PT and IF.

Discuss a situation in which an exception could be argued.

*Focus on the integration of PT/IF/Assessment practices

Moving forward: Abbreviated Guide to Adapting PT and IF with Assessment Practices to Foster Student Learning -
Resolving the Divide

Guiding a Practical Application of Program Theory and Implementation Fidelity to Assessment Results in Academic or Student Affairs – Include AI when beneficial

Step 1: Identify an Outcome of Interest or Concern.

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

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

Step 3: Help programs/units **Select scholarship or theory**, such as student development theory, to foster outcomes in their specific contexts.
       Collaborations will assist

Step 4: Guiding the ***development of programming/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.

For further assistance or a detailed copy, email tlflateby@gmail.com

Moving Forward continued

Guiding a Practical Application of Program Theory and Implementation Fidelity to Assessment Results in Academic or Student Affairs – Include AI when beneficial

Step 5: Guide selection or construction of outcome assessment measures, rubrics and objective measures, with acceptable guidelines to accurately measure all elements of outcome. (Use references)

Step 6: Guide the construction of 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.
◦ Discuss less resource intensive ideas

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,** provide **more credible evidence** of intervention effectiveness. This step should separate results for relevant subpopulations. Collaboration may be essential.

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References

• Bickman, L. (1987). The functions of program theory. *New Directions for Program Evaluation, 33,* 5-18

• 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.

• Fink, L. D. (2013). *Creating significant learning experiences: An integrated approach to designing college courses*. San Francisco, CA: John Wiley & Sons.

• 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.

• Pope, A. M., Bare, A.K.., Finney, S.J., (2019), Summer The Essential Role of Program Theory: Fostering Theory-Driven Practice and High-Quality Outcomes Assessment in Student Affairs Research and Practice in Assessment