

# FIDELITY, BUILDING AS YOU GO: USING FIDELITY ANALYSIS TO DEVELOP CQI FOR APP PROGRAMS

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## INTRODUCTION

In June 2023, Ohio PREP evaluators found a critical misunderstanding among staff about fidelity data collection. Staff were charged with monitoring the implementation of programming for specific sessions to ensure delivery of the program aligned with how the facilitators were trained. This activity was in addition to the collection of curriculum fidelity as designed in the original evaluation plan. Both elements contribute to the overall intervention fidelity, but the similarity between the two activities caused confusion with PREP staff. This led to gaps in fidelity collection and issues with data quality. Clarifying these concepts improved data quality over the last six months of 2023, which was integrated into our annual federal report. In this analysis we were able to use the activities and sessions completed to uplift the work of PREP staff and quantify the work that went into implementation.

## WHAT IS FIDELITY?

"Fidelity is a broad term and may encompass aspects of programming other than content or mode of delivery" (Hill et al., 2006).

**Intervention Fidelity** = "the match between an intervention as it was intended to be delivered to the intervention as it was actually delivered" (Hill et al., 2006).

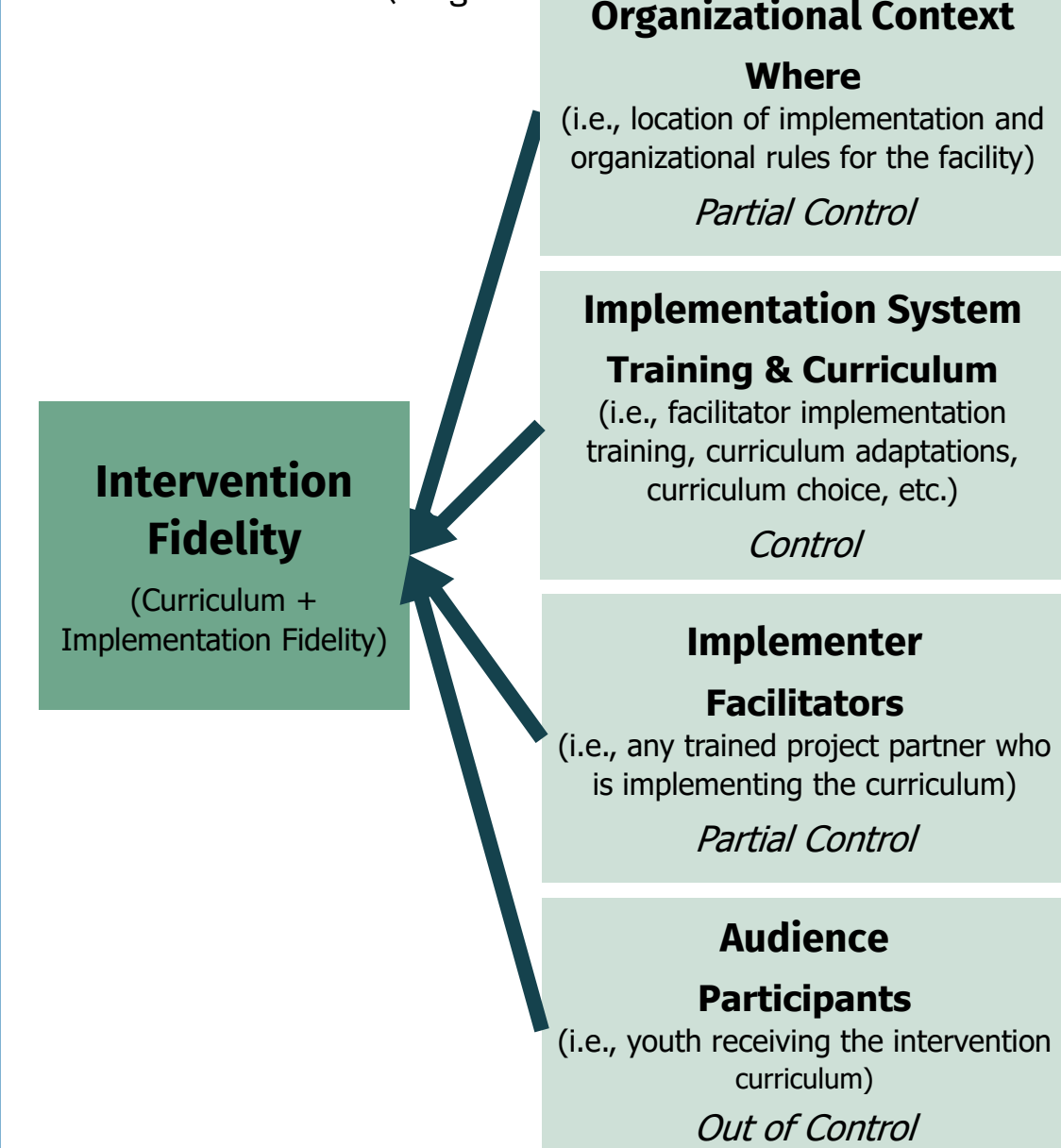
Intervention Fidelity = two sub-fidelity collection categories:

- **Curriculum Fidelity** = Adherence to the curriculum as it was designed.
- **Implementation Fidelity** = How the intervention was implemented.

Adapted intervention model identifies key domains that affect fidelity, domains in the context of PREP, and the amount of control over the domain.

### ADAPTED FIDELITY INTERVENTION MODEL

(Ringwalt)



## WHY DO WE NEED FIDELITY? EVIDENCE-BASED CURRICULUMS

"The content of most evidence-based programs is developed using explicit theory that has been tested and refined over the course of multiple studies, and the theory underlying program content links program implementation to program outcomes" (Hill et al., 2006).

Structural or service delivery aspects of intervention fidelity are:

- Often not specified, but implicit.
- Highly controlled when establishing an evidence-based curriculum, use replicated, randomized trials (RCTs).
- "In real-world implementation, the implicit theory underlying these structural details may be violated" (Hill et al., 2006).

### OHIO PREP USES MAKING PROUD CHOICES! (MPC)

Evidence-based, safer-sex approach to teen pregnancy and HIV/STD prevention.

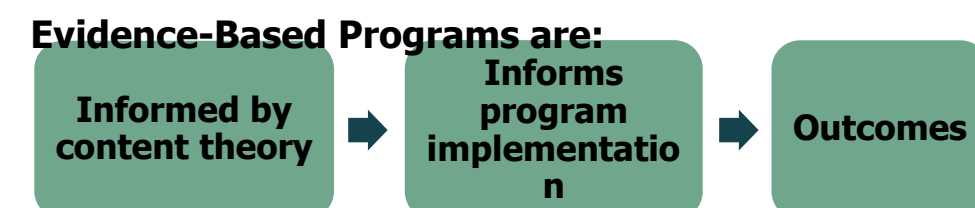
- 13 Module Curricula (60 mins each)
- 8 Modules = MPC
- 5 Modules = Adulthood Topics

Follow the QR Code for more information on MPC.

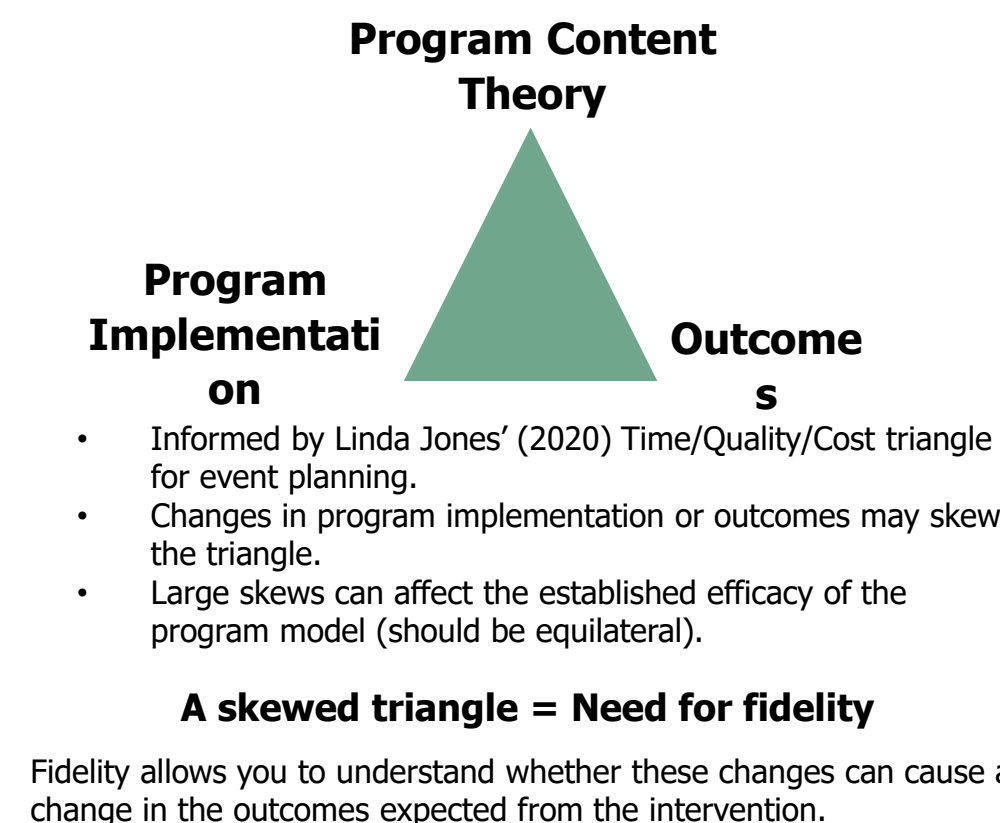


## ADAPTATIONS OR DEVIATIONS FROM FIDELITY

"The degree to which outcomes are affected by deviations from fidelity is a significant concern in the translation of prevention programs from research-based efficacy trials to community-based implementation" (Hill et al., 2006).



## EVIDENCE-BASED PROGRAM TRIANGLE MODEL



## HOW OHIO COLLECTS FIDELITY DATA

### Curriculum Fidelity

- Primary Source of Curriculum Fidelity = Fidelity Checklists
- Checklists are completed for each session.
- Checklists are completed by the facilitator or co-facilitator of the session.
- Sheets are completed right after the session is finished.
- Data is sent in with participant data.
- Tracked by the evaluation team.

### Implementation Fidelity

- Primary Source of Implementation Fidelity = Site Monitoring
- Conducted primarily by District Coordinators.
- Other PREP staff can monitor (must be trained in the curriculum and participated in a PREP facilitator training).
- Occurs once every 365 days.
- Modules Observed: 1, 5, 6, 9, 13.
- Tracked with the evaluation team in the Ohio PREP Microsoft Teams folder.

Follow the QR Code to see an example of our fidelity checklist.



## ESTABLISHING A POSITIVE ASSOCIATION WITH THE CONCEPT OF FIDELITY

### UPLIFTING ALREADY COLLECTED INFORMATION

Emphasize the total amount of activities completed to fidelity.

**Total Sessions = Hours of Work**

**2,474 activities were completed to fidelity**

**452 sessions were completed to fidelity**

**90% completion to fidelity**

Using this to uplift the work of PREP staff demonstrates that, whether represented in returned participant surveys or not, work is still being done.

Completion to fidelity is a simplistic statistic that relies on self-reported data, but it can provide some high-level useful information for implementation. Caution should be used though as it is not impossible to have a 100% completion to fidelity, it is improbable. No adaptations across all sessions is highly unlikely.

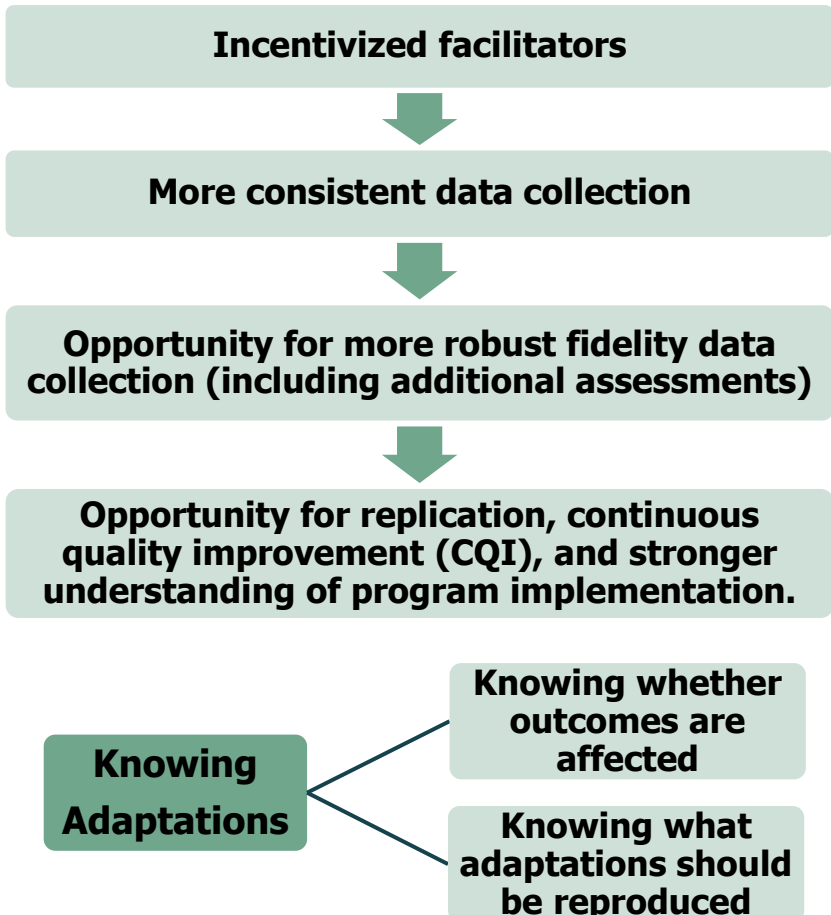
## ADAPTATIONS AS A GOOD THING!

### Important to frame adaptations as a good thing!

Evaluators expect adaptations.

Knowing the adaptations enables evaluators to determine whether outcomes are affected or if adaptations should be reproduced in similar situations.

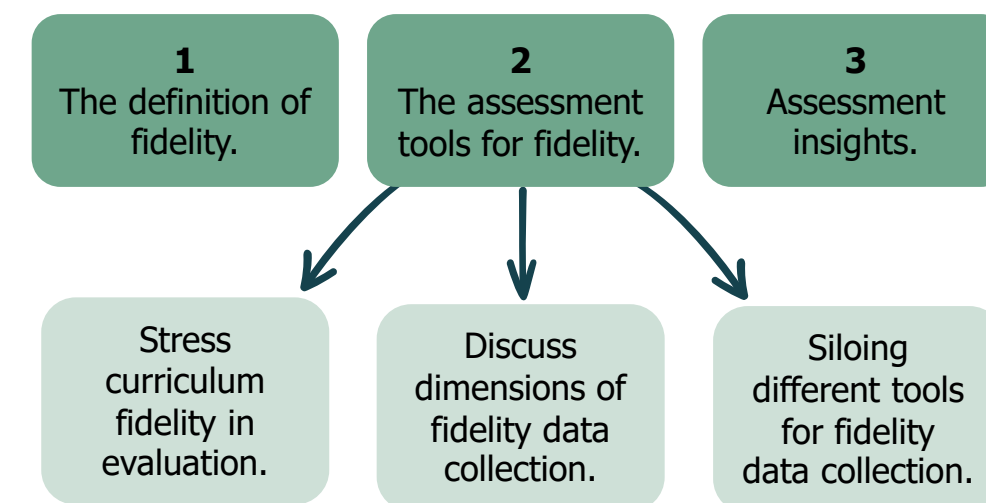
If adaptations are a good thing, then facilitators have an incentive to collect fidelity data and can see how it can be used to uplift their work.



## INITIAL STEPS TO INCREASING FIDELITY DATA COLLECTION

### Establishing the same starting point.

Ensure all PREP staff understand these three points.



Once the foundation was set, an influx of fidelity data was submitted across the state over the last 6 months of 2023.

Thanks to this consistent data collection, evaluators were able to conduct an initial analysis of the fidelity data collected.

### Information available from already collected fidelity data:

- Common themes or high-frequency adaptations identified from data collected.
- Of those high-frequency adaptations, whether the adaptation is something that could be prevented?
- For adaptations that could have been prevented, the adaptations need to be categorized in terms of locus of control for facilitators or PREP staff.
- Then focus on adaptations that facilitators and PREP staff have agency in overcoming.
- These control categorizations are represented in the adapted fidelity intervention model presented to the left.

## EXAMPLES OF ADAPTATION CATEGORIZATION

Adaptation 1: Fire drill in the facility	Adaptation 2: Can't bring in the condom demo materials	Adaptation 3: Participants are disruptive/not focused
<i>Out of locus of control</i>	<i>Partial locus of control</i>	<i>Within locus of control</i>
This scenario falls under the domain of organizational context and implementers. Since generally out of the locus of control for a facilitator. Strategies for improvement would need to come from the organization and therefore is outside the control of implementers.	This scenario falls under the domains of organizational context and implementers. Since organizational context is primarily out of the locus of control for the implementer would be the strategy to pursue. A facilitator could use an alternative from ETR or approved substitutions. Although a facilitator can't change the rules of the facility, they can adapt their teaching strategy to fit to the facility.	This scenario falls under the domains of audience and implementation system. Since the audience is out of the locus of control for the facilitators due to the target population being served, the implementation system will be the domain to use to address this barrier during training for facilitators.

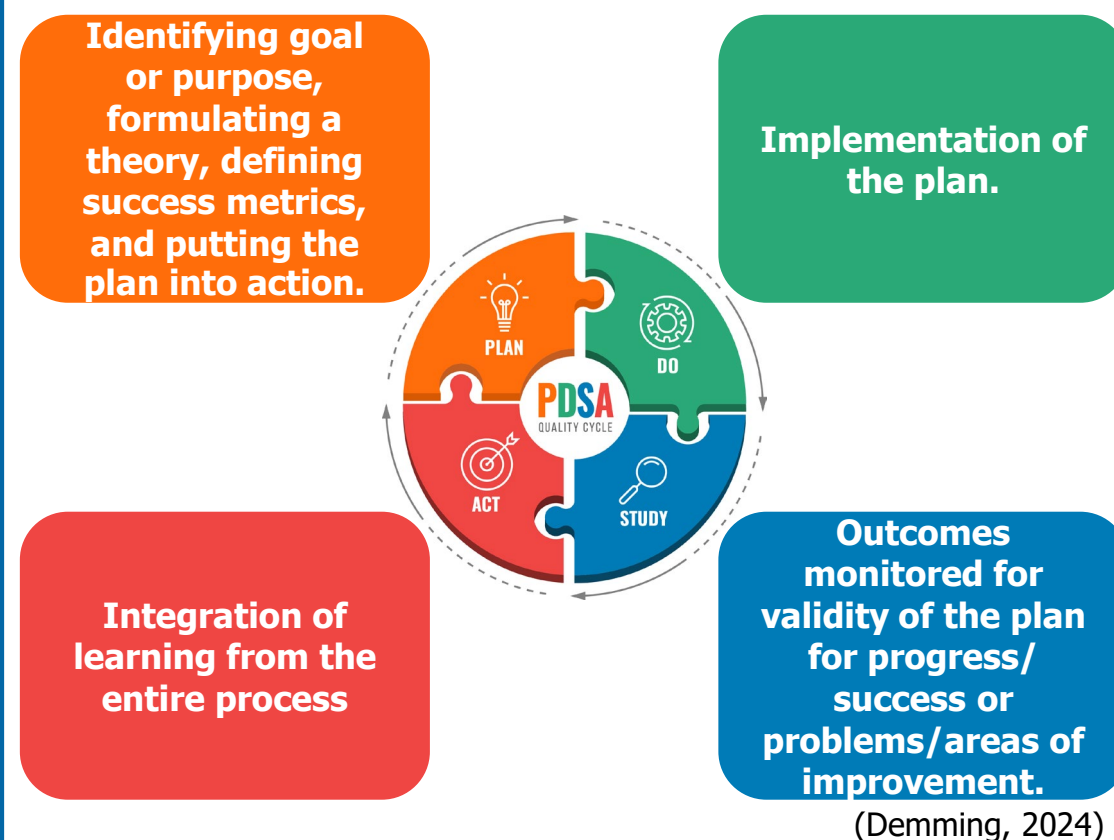
By routinely reviewing fidelity in this context, evaluators can allocate their time to adaptations with feasible solutions or reproducibility and enable staff to integrate data driven adaptations into their planning their own CQI plan.

## CONTINUOUS QUALITY IMPROVEMENT WITH THE DATA YOU HAVE

Continuous Quality Improvement Model - PDSA (Plan-Do-Study-Act) Cycle

"A systematic process for gaining valuable learning and knowledge for the continual improvement of a product, process, or service." (Demming, 2024)

With currently collected PREP data and using the categorization techniques in the adapted fidelity intervention model, information can be obtained to inform CQI.



## ELEVATING YOUR FIDELITY ANALYSIS AND CQI

Once the positive association has been established and consistent data is coming in, evaluators can begin elevating the fidelity analysis by identifying potential sources for fidelity data. These potential sources will provide more robust information for development of CQI for partners.

Follow the QR Code to see the Potential Sources of Fidelity Data Table.



By collecting and maintaining these data sources, evaluators can use this information to conduct a high-level analysis of fidelity, such as t-tests or Pareto charts to drill down further into the fidelity of the intervention.

### Three Component Fidelity Score in the Missouri Study (Cronin et al., 2014)

Follow the QR Code to see the Missouri Study article.



### Component #1: Program Delivery

Measured by the fidelity logs. Each module receives a score based on fidelity completion.

Adaptations are categorized as (ETR, 2017):

Green Light	Yellow Light	Red Light
"Minor adjustments that are encouraged, either because they will not reduce the effectiveness or because they might even improve effectiveness."	"Adaptations are those that should be implemented thoughtfully with caution and possibly guidance. These may be minor or more extensive. They might not reduce effectiveness in some situations but could reduce effectiveness in other situations."	"Adaptations are those that should not be implemented, because typically they will reduce effectiveness. They are considered major adaptations."

### Component #2: Class Attendance

### Component #3: Program Implementation

Program implementation score was a composite score based on fidelity logs, attendance records, facilitator pre-survey, and participant exit surveys.

This 3-component fidelity score may not be a one for one transfer to other grantee processes, but adapting this model to the data sources collected can prove to be an effective means of targeting quality improvement plans at a specific variable level (e.g., program, geographic location, facilitator, age group, etc.) (Cronin et al., 2014)

### WHAT DOES IT MEAN?

No matter the level of fidelity management and tracking an organization is engaging in, establishing a positive association with fidelity only benefits program staff by creating the foundation for data informed quality improvement for the intervention.



Establishing consistent data collection and management of fidelity processes, enabling the tracking of adaptations across implementation areas.

Using higher level statistical analysis, evaluators can explore the validity of adaptations and ascertain the effects on program outcomes and potential areas of quality improvement.

## OHIO PREP'S NEXT STEPS

- Continue the practice of highlighting activities and sessions to uplift the work of facilitators.
- Implement the Facilitator Annual Survey.
- After six more months of consistent fidelity collection, do a full year review of fidelity for the annual report.
- Use fidelity analysis to identify high-frequency adaptations within the locus of control of facilitators and provide findings to district coordinators.
- Discuss and review with district coordinators potential processes to adjust and improve implementation.
- Continue implementation and data collection, monitoring for any changes and whether they had a positive or negative influence on implementation.
- Ideally, Ohio would like to focus in on settings and geographical locations to ascertain whether certain adaptations work more consistently in rural and metropolitan areas. Additionally, exploration of sub-populations may lead to better understanding of best practices for those groups of participants.

## CITATIONS AND RESOURCES

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