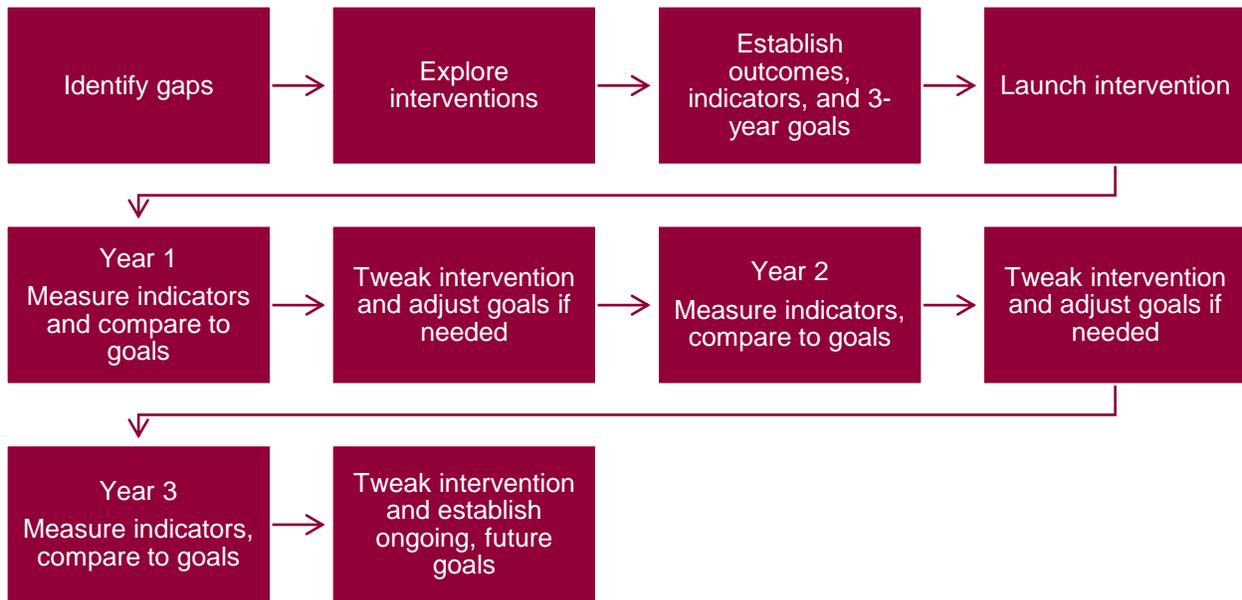


Development and Evaluation Process

As part of our effort to increase the culture of data here at RTC, we need to develop a systematic procedure for developing, and then later evaluating, our interventions. The following document outlines steps to take and things to keep in mind when conducting this work. Figure 1 provides a brief flowchart outlining the ideal cyclical evaluation process.

Figure 1. Intervention Development and Evaluation Process



The detailed steps outlined below assume that you have already identified an opportunity gap, achievement gap, or learning gap to be addressed. According to the Glossary of Education Reform, an opportunity gap “refers to inputs—the unequal or inequitable distribution of resources and opportunities—while achievement gap refers to outputs—the unequal or inequitable distribution of educational results and benefits. Learning gap refers to relative performance of individual students; i.e., the disparity between what a student has actually learned and what students are expected to learn at a particular age or grade level” (Retrieved June 16, 2016 from <http://edglossary.org/opportunity-gap/>).

Step 1. Do your background research; i.e., conduct a thorough literature review and look at data. What else has been done? What has and hasn’t been effective? Based on these efforts, what aspects of this intervention can be implemented here at RTC? You don’t have to write a literature review, you just need to familiarize yourself with information and resources that may already exist. The RTC Library has several journal subscriptions available on the [online databases website](#). The JSTOR and ProQuest databases are a good place to start.

Other Literature Review Resources:

<https://www.reading.ac.uk/internal/studyadvice/StudyResources/Essays/sta-startinglitreview.aspx>.
<http://subjectguides.library.american.edu/c.php?g=175218&p=1154157>

Submit a data request for any additional data needs. The IR Office can work with you to address your data needs and to assist with the literature review, but make sure to allow ample turn-around time for any data requests. If you need assistance with literature reviews, a turn-around time of several weeks at minimum is needed. If possible and/or applicable, conduct focus groups to gather additional information.

Step 2. Meet with key stakeholders and develop a plan for implementation.

Step 3. Determine the outcomes that you will expect to see after full implementation of the intervention and applicable indicators. These outcomes need measurable indicators that are clearly defined and operationalized.

Q. What is an outcome?

A. The outcome measures the broader results achieved through the intervention.

Q. What is an indicator?

A. An indicator provides evidence that a certain condition exists or certain results have or have not been achieved (Brizius & Campbell, 1991). Indicators enable decision-makers to assess progress towards the achievement of intended outputs, outcomes, goals, and objectives. As such, indicators are an integral part of a results-based accountability system. Indicators should, to the extent possible, provide the most direct evidence of the condition or result they are measuring (Retrieved June 16, 2016 from <http://www.hfrp.org/publications-resources/browse-our-publications/indicators-definition-and-use-in-a-results-based-accountability-system>).

Q. What is an operational definition?

A. “The specific way in which a variable is measured in a particular study is called the operational definition. It is critical to operationally define a variable in order to lend credibility to the methodology and to ensure the reproducibility of the results. Another study may measure the same variable differently. The operational definition also helps to control the variable by making the measurement constant. Therefore, when it comes to operational definitions of a variable, the more detailed the definition is, the better” (Retrieved March 24, 2016 from https://cirt.gcu.edu/research/developmentresources/research_ready/quantresearch/variables_def).

Step 4. Obtain baseline data for your outcomes. The IR Office can work with you to address your data needs, but make sure to allow ample turn-around time for any data requests.

Step 5. Set goals for the intervention based on your outcomes. What are your Year 1, Year 2, and Year 3 goals? If necessary, you can extend your goals beyond three years, but a three year minimum is highly recommended.

Step 6. Implement the intervention.

Step 7. Monitor and evaluate your outcomes for Year 1. If needed, reset goals for the next year. Evaluate the intervention’s effectiveness thus far using the rubric (see Table 1).

Step 8. Monitor and evaluate your outcomes for Year 2. If needed, reset goals for the next year. Evaluate the intervention's effectiveness thus far using the rubric (see Table 1).

Step 9. Monitor and evaluate your outcomes for Year 3. Using the rubric, determine if this intervention should be scaled and/or maintained. If yes, develop future ongoing goals consistent with the original outcomes. If no, the intervention may not be an effective practice and a decision must be made whether or not to continue it.

Step 10. If applicable, scale the intervention if it has proven to be effective.

Example of an Identified Gap, Outcome, Indicator, and Goal

Identified Gap: You have noticed that students are leaving your program after the first quarter and data confirms a 1st to 2nd quarter retention rate of only 50%. You decide to implement a new teaching strategy in your program, based on a thorough literature review of what works in similar programs.

Outcome: Retention

Indicator: 1st to 2nd quarter retention rates for first-time, degree-seeking students (based on PEP cohorts) in your program.

Goal: Increase 1st to 2nd quarter retention in your program by 5% each year. For Year 1, your retention goal would be 55%, for Year 2, 60%, and for Year 3, 65%.

References

Brizius, J. A., & Campbell, M. D. (1991). *Getting results: A guide for government accountability*. Washington, DC: Council of Governors Policy Advisors.

Center for Innovation in Research and Teaching (2016). *Variables and operational definitions*. Retrieved online from <http://cadres.pepperdine.edu/ccar/define.html>.

Great Schools Partnership (2013). *The Glossary of Education Reform: Opportunity gap*. Retrieved online from <http://edglossary.org/opportunity-gap/>.

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Table 1. Rubric for Evaluating Intervention Effectiveness*

	Excellent (3)	Promising (2)	Emerging (1)
Delivery Time	At least 2 years of data for consistent delivery of intervention	At least 1 year of data	Less than 1 year of data
Data Collection/Types	Robust collection methodology using both qualitative and quantitative	Mixed methods/data types utilized	Limited data collection; reliance on one data type
Outcomes	All outcomes are clearly defined and operationalized	Outcomes are defined	Outcomes have been proposed, but not clearly defined
Results	Success in multiple cohorts, consistent results	Success in at least 2 cohorts	Based on literature review, policy study, and/or successful pilots
Statistical Significance	At least one outcome with a substantial effect size is statistically significant at the 5% level	Outcome change is statistically significant at the 10% level (marginally significant)	Outcome change may be seen only in descriptive statistics but not yet statistically significant.
Impact	High impact: greater than 11% impact or greater than 100 students over time	Medium impact: 1-10% change or at least 30 students	Low or no statistical impact: <1% or <30 students
Sustainability	Self-sustaining and/or integrated into operational budget	Needs some initiative support	Requires external or one time funding
Replicability	Transferable to other colleges, contexts, types of students or in sequential cohorts	Transferable to any college, context or type of student	Undetermined or unique to the college, context, or a type of student
Alignment	Aligns with statewide initiatives and/or addresses multiple college or policy goals	Supports single college initiative or a single policy goal	Addresses only a department or division goal

*Rubric approved in 2016 by the WA State Research and Planning Commission (RPC).

This rubric is meant to serve as a guideline for evaluating the effectiveness of your intervention. However, not all items will be applicable and additional items may need to be added. Factors to consider when creating a customized rubric include how suitable a practice is likely to be for the outcome(s) you hope to achieve, the target population, the preparation of your faculty/staff, available resources, institutional culture, etc. It might also be useful to determine the minimum “score” required to continue with the implementation of the strategy, activity, or approach (Step 9). You can work with the IR Office to create a customized rubric for your intervention.