Evaluation and Benchmarking Module

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Background

Pathways to Results (PTR) uses data to identify problems, to improve pathways and programs of study, to support the selection of solutions, and to demonstrate results (Bragg, D., & Bennett, S., 2012). This module focuses on processes that support evidence-based decision making, analysis, and accountability associated with PTR. The processes that are highlighted are evaluation and benchmarking. Evaluation and benchmarking are complimentary processes that focus on what has happened in the past, what is happening now, and what can be accomplished in the future.

The purpose of this module is to assist PTR teams to answer the following questions:

- What impact are programs of study having on outcomes and equity?
- How does the team know if the programs of study are successful?
- Is the team on-track with our implementation strategies?
- How do the selected programs of study compare to other programs of study that the team might evaluate in the future?
- What can the team learn from others who have worked on this problem?
- What can the team learn from others who have tried to improve similar programs of study?
- What does success look like?

Pathways to Results (PTR) is an outcomes-focused, equity-guided process to improve programs and policies that support student transition to and through postsecondary education and employment. PTR focuses on addressing equity gaps between diverse learner groups and continuously improving processes critical to student success, including retention, completion of postsecondary credentials, and transition to employment.

Evaluation

Evaluation is an important process in any educational environment. Evaluation includes testing and assessment, to evaluate what students know and can do. It also includes the use of student surveys and classroom observations to evaluate teachers' instructional delivery and students' learning experiences. On a larger scale, accreditation is a form of evaluation that focuses on using peer judgments against a set of accepted practices and standards, including those codified by policy makers and endorsed by educators and industry groups.

Ultimately, evaluation involves the use of systematic methods to support informed judgments about processes, practices, and programs that produce outputs and outcomes. Compliance with established standards can be an important part of evaluation and in these cases, evaluation contributes to accountability. In any form, evaluation should help to communicate results to various audiences, including decision makers, students, parents, employers, and others (Russ-Eft & Preskill, 2009). With respect to PTR, evaluation helps to determine if outcomes have been achieved and performance has been improved (Harmon, T., Liss, L., Umbricht, M., & Flesher, J., 2012).

Many models and approaches are used for evaluation, with each suited to a particular need, philosophy, and goal (Russ-Eft, Biber, de la Teja, Foxon, & Koszalka, 2008). A comprehensive discussion of the potential models and methods are beyond the scope of this guide, however, multiple sources are included in Appendix A, References and Resources. In effect, there are two layers of evaluation occurring in PTR. The first is modeled on Patton's *Developmental Evaluation* approach (2011). Developmental evaluation recognizes the complexity of social innovation, is inclusive of stakeholders, uses evidence-based methods, and continues in an open-ended cycle of continuous improvement and learning. The second is likely a more familiar model of program evaluation that supports monitoring progress and assigning accountability for outcomes (Russ-Eft & Preskill, 2009).

The PTR process incorporates aspects of participatory action research (Noffke & Somekh, 2009) and organization development (Anderson, 2012). PTR creates more than solutions; in a broader sense, it develops relationships and promotes innovation and change. The intention is that these innovations and changes don't end at the completion of project milestones or a pre-defined time period, but instead infuse individuals and organizations with new ways to look at student outcomes and equity to continuously improve and grow (Bragg & Bennett, 2012). That potential for ongoing participant-based decision-making and evaluation based on the approaches used during a PTR project, create the true alignment with the developmental evaluation model. After an initial PTR project that is supported by special funds and OCCRL coaching is completed, PTR may no longer be formalized in the traditional sense of reports and assignments, but the promise of an inclusive, evidence-based practice goes on. Some of the elements that reflect the developmental evaluation model include broad participation in data review and action planning, periodic reflection, and shared meaning derived from personal experiences expressed in unique stories told by individuals and teams (Patton, 2011).

Within the *Process Improvement and Evaluation* process, an evaluation plan is created to measure changes in student outcomes, looking at achievement by student sub-groups (Harmon et al., 2012). Generally, two measures of project success are collected and reviewed: activity measures (what was done) and performance measures (what was accomplished). Possible measures for both categories include:

Examples of Activity Measures include:

- Number of website hits for an improved program of study after new marketing efforts were deployed through PTR.
- Number of students enrolled in a program of study after improvements (e.g., added dual credit course) were made through PTR.
- Number of student support personnel providing targeted outreach to first-generation college students after solutions were identified through PTR.
- Number of minority students participating in college and career fairs sponsored through PTR.
- Hours of in-service and professional development offered to faculty and staff on new processes and methods for improving academic achievement for all students, as identified through PTR.

Southeastern Illinois College PTR Team

EVALUATION PLAN

The Southeastern Illinois College (SIC) PTR team identified a lack of awareness among high school students, and to some extent first-year college students, of Southeastern Illinois College's Computer Information Systems (CIS) and Information Technology (IT) programs, and the need to increase marketing/promotion of the programs and career opportunities available.

PTR SOLUTIONS

The team finalized three primary solutions for their PTR work; marketing of the programs to current dual credit students in district high schools including classroom presentations, direct mailings, and classroom instructional aids. Second, develop and implement two IT dual credit courses for articulation with district high schools. Finally, the team will create a programs of study tool for the CIS and IT programs to assist faculty and counselors with student advisement.

METHODS AND MEASURES

For recruitment, assessment methods include calendar of classroom presentations, sign-in sheets with student information from classroom presentations, survey students attending classroom presentations; and comparative enrollment data in the CIS and IT programs. Additional assessment methods utilized for both recruitment and retention efforts include development of dual credit courses (and subsequent institutional and state approval of curriculum), articulation approval analysis forms, student and faculty surveys of dual credit courses, and dual credit enrollment data.

Examples of Performance Measures:

- Change in program retention rates.
- Change in population representation for certificates and degrees awarded.
- Change in time to completion of a program of study.
- Change in perceptions of program quality.
- Change in completion of dual credit courses by targeted student groups.
- Change in course completions by targeted student groups.
- Change in perceptions and usefulness of academic advising.
- Change in developmental education requirements for targeted students.

PTR starts with questions that, when answered, improve student outcomes and address equity gaps between student groups. Specific outcomes and equity goals are established, process issues are identified, and action plans with steps are created (Bragg & Bennett, 2012). Examples of questions that can be answered with evaluation include:

- Is the team on track with implementation of programs of study?
- Does anything need to be changed to implement the identified solution successfully?
- Was the program, process, or product effective? Was it worthwhile?
- What happened that wasn't expected; what went beyond expectations?
- How did people feel about the solution? Are they satisfied with the changes?
- Were the goals accomplished? How were key stakeholders such as students, instructors, and staff impacted?
- Should the program be expanded? If so, what would be the result?
- How can the program continue to improve?

Institutional Research (IR) staff should be included in evaluation study designs to ensure that there are no requirements or questions about confidentiality, consent, and record keeping that have not been addressed. It is also critical to secure Institutional Review Board (IRB) approval when human subjects or sensitive issues are involved, for example, if subjects are under the age of 18; where data may have the potential to create any negative impact on students, employees partners, or others; and anytime there is the potential for responses to be traced to individual students (Creswell, 2003). When possible, research staff, including IR staff employed by K–12 schools, colleges and universities, should partner to assist with data collection and analysis and to access existing archived data (e.g., attendance and achievement data residing in student records that have been de-identified so that individual identity is unknown).

Building an Evaluation

Many resources exist to help build an evaluation plan for a PTR project, including using tools and templates available in other PTR modules. A few general rules for creating evaluations include to clarify what needs to be evaluated early; formulate clear questions and think about how the evaluation will be done before starting the implementation of any solutions. Ask for help with unfamiliar processes or techniques; OCCRL is an outstanding resource to assist with evaluation projects, especially PTR. Whenever possible, simplify the evaluation methods you choose to use. Use pilot testing liberally so that everyone understands what is likely to happen when the actual evaluation is conducted.

A basic process of evaluation is described by the following model:

1. **Start with the question – what needs to be known?** Oftentimes there are a few major questions that might lead to related sub-questions.
   For example – How do we know we are on-track with our implementation plan?
   To answer this question, "on-track" needs to be defined. Considering the answer to this question might lead us to ask:
   - Are all tasks complete in accordance with the timeline?
   - Have expected results been achieved from tasks or pilots?
   - Why are incomplete tasks unfinished?

John A Logan College PTR Team

EVALUATION PLAN

With the increasing focus in Illinois on "green jobs", high school and adult students who are retraining for current career trends are not aware of the opportunities in Southern Illinois for green career training programs. This project seeks to increase career awareness among secondary schools and the local workforce population by developing a green-focused program of study in HVAC (heat, ventilation, air conditioning) Green Technology. Efforts will also be concentrated on engaging more women in green-focused careers.

PTR SOLUTIONS

As a result of the PTR Team's work, it was determined that target audiences for high school recruitment need to be inclusive of all students groups, not just students in Career and Technical Education programs, and recruitment sessions need to provide more information about various new and emerging green career opportunities for males and females. To address these needs, a more comprehensive recruitment plan within all the feeder high schools was developed where prospective students could meet with instructors and currently enrolled students and engage in hands-on demonstrations. The team decided that personal contact with students had to highest potential to attract high school students. John A Logan College students participating in the demonstrations will consist of both males and females which will inspire both genders of students. Previous recruitment processes have been informal, however now a formal plan that delineates responsibilities, objectives, and timelines will promote a structured timeline and increase the ability of recruitment efforts to be evaluated and revamped in the future.

METHODS AND MEASURES

Data on students who enroll in the HVAC Green Technology Program will be gathered to assess the success of the new recruitment methods, looking for an increase in total numbers as well as female enrollment and interest. The lead instructors use information available on the college administrative computer system, along with their own informal recordkeeping forms.

These questions determine the data that are needed, and also define the methods used, which, in turn, specify the analysis techniques needed to derive results that answer the questions. If the questions are ill-focused or poorly conceived, the entire evaluation process is affected in a negative way. Key questions are therefore very important, but they do not have to be difficult to generate (Russ-Eft & Preskill, 2009). Some guidelines for good evaluation question development include:

- Ask exactly what is needed, and avoid trying to construct an answer to the real question with a series of other questions.
- Write the questions as simply as possible, so there is only a small or no chance of misinterpretation. If you test them with others and they are technically correct but open to interpretation, write them again.
- Ask only one question at a time and avoid compound questions.
- If sub-questions are written, check them by asking if they relate directly to answering the main question? If not, they are either out of scope or there is a need to modify or add to the main question.

These guidelines are useful from the start. They help define the key questions that drive the evaluation, and they provide guidance all the way through the project, including creating instruments like student focus interview guides and student surveys.

Guiding Principles Validity, Reliability, and Feasibility

Validity means that the results and process are true; they measure what is intended to be evaluated. This means the information gained from an instrument or research activity actually represents what is trying to be determined. Sometimes, validity is reduced because questions are worded such that respondents have different impressions of what is being asked and therefore respond differently. Validity can also be reduced by offering poor directions, providing too much variation in multiple interviewers or raters, making mistakes in analysis, and using data improperly to support unwarranted conclusions.

Reliability means that an instrument or process is consistent when accomplished multiple times. This measures the stability of responses and is often reported with assessment measures (Creswell, 2003). Errors and inconsistencies in collecting data at one point in time or over multiple administrations of data collection instruments contribute to reliability problems.

Feasibility relates to the practical viability of the methods and processes proposed or selected to conduct the evaluation. Measures of feasibility include time, money, expertise of staff, tools and support, availability of data and subjects, etc. Whereas the goal is a valid process, oftentimes there are limitations to what can contribute to the evaluation based on these constraints. It is important to make informed decisions about potential compromises and match methods used to fit the context of the study to maximize the value and validity of the end results (Harmon et. al., 2012).

2. **Design the study – what is the best approach to designing the evaluation?** For each evaluation question ask who knows, where is the information and how can the team member tell? This may involve counting, observing, asking opinions, and/or referencing comparable data. Design of the evaluation study includes the major (key) questions that will be asked, the approach to selecting the study participants, the methods used to collect the data, and the approach to analyzing the data.

3. **Collecting data – what is the most valid, reliable and feasible way to collect the data?** The most reliable data are directly observed performance, verifiable facts, and tangible artifacts (i.e., the number of students enrolled in a course, the time required to complete a process, the cost of a guide, the number of hits on a website). Sometimes data are not immediately observable or the cost and difficulty of making observations isn't feasible. In those cases, the answers should be approximated through techniques that approximate the measures that are unable to be secured, or respondents are sampled who represent the population seeking to be studied.

Waubonsee Community College PTR Team

EVALUATION PLAN

The PTR team attempted to identify student success and risk factors for program completion for the Health Information Technology (HIT) program to ensure successful development and implementation of a newly developed curriculum. The Partnership hoped to match students' skills and abilities to the different career pathways of the Health Science cluster and clearly identify students with the appropriate entry criteria for the college's HIT program.

PTR SOLUTIONS

After assessing the potential solutions to implement, the PTR team chose to implement the following solutions: create an application packet, identify HIT course prerequisites, create course sequence and bridge course, and conduct information sessions for students.

METHODS AND MEASURES

The Partnership will evaluate the effectiveness of the implemented solutions through a combination of data that will be collected on student course-taking progress, degree completion, and graduation. Additionally, a survey will be sent to students and clinical experience reports will be monitored. There are no baseline data for this evaluation; however, these measures will be benchmarked against current closed-enrollment programs and a sampling of current students to assess student progress. In addition, statistics regarding the pass/fail rate for the RHIT certification exam will be analyzed to determine the rate at which students are earning credentials to enter the occupation.

Sampling

In some cases it is easy to sample entire populations and derive the data for all the members of the populations. For example, the number of hits on a link to a website can be counted and trended by day and hour for all of the hits in a specified period of time. No sampling is required if all of the data is readily available. However, some data are harder to get, either because of the complexity of reaching the people or by gathering information that has valid meaning to the evaluation question that is being asked. For example, how a student feels about a new program isn't directly observable, so self-reporting is often relied on. Of course, student self-reporting is better than getting an administrator or faculty person's attribution of what they think the student feels. Plus, asking all students to report on their feelings is often not feasible either, despite the fact that the most accurate estimate would be based on asking all students. In these cases, sampling is used to generalize from a smaller, representative group to the population.

Some important sampling points to consider:

Sample strategically - convenience sampling is often the easier option, but it may not produce generalizable results. When possible, random sample from an entire program or class. Also, the risk of errors is limited if large enough samples are used, allowing results to be analyzed by sub-groups, for example, different class periods, different demographic backgrounds or different programs of study participants (Creswell, 2003).

Gather data from leaders and key informants – oftentimes there are people who are very close to a process and have deep knowledge that is important to include in the evaluation. For example, if measuring the outcomes of student advising, it is important to include employees who work directly with students in doing advising.

Fans and critics – in most situations there are those who support something and those who do not. Sampling should not isolate one or another opinion and include, where possible, the widest possible range of data provided by persons having a diversity of opinions.

Credibility – while not exact, it is important to ensure that sampling meets a test of credibility. Whereas statistically viable answers might be obtained with limited samples, questions may be raised about the generalizability of data gathered from too few respondents. A rule of thumb is to include the key informants, stratify to include sub-populations, and gather enough data to establish a credible finding.

4. **Data collection methods – what methods should be used?** Data can be collected using many methods, and as stated earlier, the question and source of the answer lead to picking the method. Methods include tests, surveys, observations, cases and stories, and archival/record reviews (see Appendix B for some general guidance on do's and don't's for common data collection methods). Whereas a detailed description of data collection methods is beyond the scope of this document, a few guidelines can be useful in supporting a successful approach:
   - Sometimes the data are already collected on an on-going basis, like enrollment numbers and program completion, so be sure to use existing processes/sources whenever possible.

- Ask for support from Institutional Research staff and look for innovative methods to embed data collection in systems (i.e., website click counters).
- Pilot test the methods to ensure that they work as planned and produce the information that is needed.
- Benchmark previous PTR teams, including using examples from prior PTR teams that are described in *Pathways to Results Project Profiles* (http://occrl.illinois.edu/files/Projects/ptr/Project%20Profiles%20Update.pdf).

5. **Analyze results – how should the data be analyzed?** Distilling data into findings that have meaning is the next step in the evaluation process. Generally, data are either quantitative (numbers and counts) or qualitative (themes, comments and stories). It is a good idea to have a plan for how the analysis will be accomplished that includes the frameworks for categorizing data and that pinpoint who will be responsible for analysis (Russ-Eft & Preskill, 2009). If used, complex statistical techniques and methods should be accomplished by experienced researchers and only when that level of sophistication is required to answer the evaluation questions.

Illinois Central College PTR Team

EVALUATION PLAN

Many of the manufacturing students who enter Illinois Central College (ICC) are not academically prepared for college and need to take remedial classes in mathematics and reading. This can delay or prevent students from achieving their career aspirations.

PTR SOLUTIONS

To address the equity issues (i.e., gaps in representation by females and minorities) in the manufacturing programs, ICC supported a regional Manufacturing Expo Career Day in October for area high school students. Students learned about career opportunities and course requirements from speakers, toured a manufacturing facility, and had a chance to talk with local manufacturers.The event drew 561 students from 20 high schools. The transcript study produced numerous solutions for improving student outcomes. While they varied by high school, common themes involved the need for improvements in marketing and recruitment, counseling and advising, instruction, and curriculum development. In terms of data, the transcript study illustrated the need for more high school data, because college level data alone provide very little useful information to high school partners.

METHODS AND MEASURES

The participating high schools are collecting data to track results of the various solutions they have implemented based on the findings of the transcript study. ICC is tracking enrollment numbers in their manufacturing programs to see if there are improvements in enrollments by underrepresented groups and improvements in academic preparation. Additionally, ICC collected survey data from the participants of the Manufacturing Expo Career Day to evaluate this year's event and make improvements for next year.

A simple description of what was observed and recoded is generally the best approach to data analysis for evaluation. Two common means of analyzing data for evaluation studies are descriptive statistics for quantitative data, and thematic analysis for qualitative data. Descriptive statistics include the frequency of occurrence (120 website hits), the range (number of hits per hour), the average (average of 100 per day for two weeks) and percentages (20% of students took a brochure). Numbers may describe a difference, a change, a trend, a value, demographics, and a relationship between categories, themes and members of the sample or population. Thematic analysis is the development of categories that reflect a summary of qualitative data, for example respondent comments or stories (Creswell, 2003). Qualitative data organizers include key questions, instrument questions, pre-existing frameworks and models, and naturally occurring themes. Sometimes evaluators want themes to emerge from the data, and in these cases, the categories are not pre-determined. An example of a thematic analysis is included in Appendix C.

6. **Communicating and reporting findings – what was found and how are the results shared with others?** The last phase of the evaluation process is to summarize and communicate the results. An effective way to organize results is by key question, with a summary of findings and/or observations and recommendations for each. An executive summary is also helpful and leads to a clear and concise presentation of the main points. Oftentimes the executive summary can form the basis for the general communication presentations with stakeholders. Generally, the detailed presentation of data sets is included in an appendix, along with a discussion of the data collection methods used and data analysis techniques (Russ-Eft & Preskill, 2009).

   Highlighting data summaries and findings with pictures and graphs, and examples from interviews and focus groups can help tell a credible story that includes numbers and the voice of the respondents. As in all aspects of the evaluation process, simple language and systematic organization increases the usability of the report. Asking others to review the report, particularly as the evaluation content shifts from findings to the application of judgment to formulation conclusions and recommendations, is a good idea. Statements that indicate if the project is on track, or if outcomes have been met or not met, deserve additional scrutiny to verify that they are supported by the evidence collected. Using others to review the report also ensures that conclusions and recommendations (if made) have sufficient grounding in the data and written material provided to convey meaning to an unfamiliar reader or to someone who may be predisposed to resist the conclusions.

Benchmarking

Benchmarking is a process of comparison that seeks to meet a requirement, collect information to make something better, or leverage past work to accelerate current progress. In fact, the framework for PTR itself is based on benchmarking. PTR is grounded in the Equity Scorecard® and related work of The Center for Urban Education (http://cue.usc.edu) led by Drs. Estela Bensimon and Alicia Dowd, and the tools and processes used in PTR incorporate concepts from continuous quality improvement, action research, and developmental evaluation (U.S. Department of Education, Office of Vocational and Adult Education, 2002). The research and experience of many scholars, practitioners, policymakers, and PTR teams has helped to continuously shape and improve the PTR process.

Benchmarking is a method to do more – and less. Through reviewing best practices and models, teams expand possibilities and options. Benchmarking is about sharing and borrowing. It is also grounded in an awareness of what has been accomplished, what worked, and what to possibly avoid. Resource constraints are almost always a part of any education project, and benchmarking addresses this concern. It offers an efficient means to get a head start and find ways to accomplish project goals even when time, money and talent are limited. Essentially, benchmarking is a way to avoid starting from zero and a means to reduce the risk of mistakes and failure.

Benchmarks can come from many sources. They may come from previous PTR teams who worked on similar issues or processes, from schools and colleges that offered similar programs of study known to be successful in the past, from examples of promising practices used in business and industry, or from written source material in books and research literature. Oftentimes identifying benchmarking information starts with the sharing of previous experience and personal contacts by PTR team members and partners. Site visits, guest speakers, cross-site meetings and other sponsored PTR meetings, webinars, and targeted online searches can help PTR teams identify promising ideas to address problems and improve programs of study.

Depending on the focus, benchmarking can help generate ideas, expand options of what can be accomplished, accelerate timelines for projects, and help to determine how to measure progress and success. Benchmarks help define what better and worse look like, what standards to apply, or how long it might take to implement an improvement. Benchmarking is broadly applicable to any continuous improvement project (Pressler, 2013). Three specific ways that benchmarking can help PTR teams include: generating ideas and options, identifying promising practices, and incorporating standards and guidelines. These three approaches are described in more detail on the next page.

Generating Ideas and Options

Benchmarking can be used to help a team get started in the PTR process and to identify some initial options. Imagine planning to remodel a kitchen, maybe a good starting place would be to look at pictures on websites to get some ideas and to help establish an idea of what can be purchased within the available budget. This type of benchmarking often provides a rough estimate, or several, to narrow down options in an efficient fashion. Extending this basic idea to PTR, this general strategy can be used to engage PTR team members in brainstorming new ideas or useful examples. Asking the group to think of where something is done well and what that program or process looks like can help to get ideas flowing.

There are many ways that this type of benchmarking can be applied to PTR. A few possibilities include:

- Conducting a review of literature to identify strategies that have closed equity gaps among student populations (e.g., race/ethnicity, gender, income) enrolled in the program of study.
- Attending a PTR Institute to learn about examples of previous work used in each phase of the process.
- Organizing a field trip to a previous PTR site to speak with staff and students about continuous process improvements.
- Asking a previous PTR team leader to provide lessons learned about engaging partners in the process.

Reflection

Consider a PTR project or potential project, how could "Generating Ideas and Options" Benchmarking be leveraged?

1.

2.

3.

Identifying Promising Practices

This form of benchmarking provides opportunities to leverage the work of others, to study others' processes to avoid mistakes, and to compare one's own processes and outcomes against exemplars. Essentially, benchmarking creates an informal standard based on another group's performance and/or achievement. This form of benchmarking can be done within an institution or with other organizations. For example, one could look within an institution at another program of study (POS) known to have high retention rates for all students, and study this POS to understanding how positive performance leads to equitable outcomes (e.g., certificate and degree completion) for all learners. This same type of benchmarking could be done with other organizations by comparing the same POS or other POS that offer the potential for PTR teams to learn how to improve.

A few possibilities to apply this type of benchmarking to PTR include:

- Identifying the more successful programs of study within the college and discovering from administrators and faculty what attributes contribute most to that success.
- Reviewing articles about innovative processes at other community colleges.
- Attending a conference like the Achieving the Dream (ATD) Dream conference to hear about promising practices.
- Soliciting former PTR team leader's input on best practices for communication and implementation planning.

Reflection

Consider a PTR project or potential project, how could "Identifying Promising Practices" Benchmarking be leveraged?

1.

2.

3.

Incorporating Standards and Guidelines

Familiar forms of this type of benchmarking are institutional reviews and accreditation. There are myriad standards and guidelines to help guide educational practice, to ensure that systems and processes work together, and to maximize beneficial outcomes. Some emanate from national policy and funding requirements while others come from state policy makers, accreditation bodies, articulation agreements, and even OSHA/ADA or local building codes that apply to classrooms and laboratories. The nation's current adoption of the Common Core Standards is an example of widespread adoption of standards that affect K–12 education, and ultimately all P–20 education (Common Core Standards Initiative, 2012). Understanding and using these standards provides teams with descriptors of expected performance, components of effective practice, and measures of required outcomes.

Some ways that this type of benchmarking can be applied to PTR include:

- A team uses planning processes that are part of the institutions strategic plan for accreditation.
- A program of study improvement is based on a national curriculum standard, (e.g., the common core curriculum, state learning standards).
- Student services are reviewed using American Disabilities Act (ADA) guidelines to ensure appropriate support for students with disabilities.
- The definitions of student populations used for analysis are based on federal and state legislative requirements.

Reflection

Consider a PTR project or potential project, how could "Standards and Guidelines" Benchmarking be leveraged?

1.

2.

3.

How to Conduct Benchmarking

Benchmarking can be done formally or informally. The process of comparison is natural and ongoing, and ideas can seemingly come from anywhere. Whereas there is value in serendipity, using structured processes may produce the most viable benchmarking opportunities.

1. **Define the goal – what does the team want to accomplish?** Specify the goal verbally and in writing so that it is understood easily. Examples of benchmarking projects can range from benchmarking a productive partner meeting to creating a useful project plan, to building student-centered online instruction.

2. **Write the goal – how is the goal communicated most effectively?** Ask for help by writing the goal in a search engine or library search, calling a colleague, emailing state agency staff, or holding a brainstorming meeting with the PTR team.

3. **Focus the project – how can focus be maintained?** Look broadly but avoid distractions – identify multiple solutions but, at the same time, do not allow the team to lose focus by chasing solutions that do not fit the problem. Cast a wide net but in the direction defined by the problem.

4. **Keep an open mind – what are all potential solutions?** Before ideas are rejected, explore what might work and how components or aspects of a practice or idea can be extended to the project.

5. **Check for fit – how does context affect the best solution?** Just because something worked well in the past doesn't mean it will work in every situation. Understand the context for the innovation by asking what had to be put into place first and how the culture and infrastructure supported the innovation.

When incorporating promising practices it may be possible to leapfrog ahead instead of just catching up. Consider how the team/project might be able to extend what has been accomplish and contribute to the next round of benchmarking as the new exemplar. Remember also to contribute ideas and observations to help continuously improve the PTR process by incorporating lessons learned and best practices. Reach out to former teams to leverage their experience and lend a hand to future teams.

APPENDIX A
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APPENDIX B
SOME ADVICE FOR DATA COLLECTION METHODS

The Survey Top 10

Do –

1. Do pilot test everything, design to analysis.
2. Do leave space for comments.
3. Do ask only one question at a time.
4. Do ask exactly what you want to know.
5. Do provide clear directions and purpose, describe use and confidentiality.

Don't –

6. Don't ask what they don't know.
7. Don't ask questions just because you can – extensive demographics etc.
8. Don't bias the questions (How great are we...).
9. Don't create false precision with scales (on a scale of 1 to 34).
10. Don't use published surveys without permission.

Observation Top Ten

Do –

1. Do use a structured guide.
2. Do calibrate multiple raters.
3. Do write notes or record and transcribe as soon as possible.
4. Do get permission to record or video.
5. Do understand the context (typical situation, special situation).

Don't –

6. Don't interrupt the process, ask clarifying questions afterwards.
7. Don't make broad generalizations form limited observations.
8. Don't neglect impact of being watched.
9. Don't be distracting (be a wallflower).
10. Don't rely on a single perspective (one rater, one angle, one observation).

Interview Top 10

Do –

1. Have a written guide.
2. Tell them why you are there, what you will do with the data, confidentiality, how long it will take.
3. Write notes or record and transcribe as soon as possible.
4. Use restatement, anything else you would like to add, is that all? Allow for silence.
5. Ask most important questions first.

Don't –

6. Don't wander off into conversation.
7. Don't say, good answer, I agree, yes that's right or I don't think we would.
8. Don't try to write quotes if you don't need them.
9. Don't leave out key informants or sub-populations of interest.
10. Don't forget to thank them.

Archive and Records Top 10

Do –

1. Use the most trusted source, original records if possible.
2. Do have a sampling plan (every nth record, or all records for xx year, etc.).
3. Do have an analysis framework/guide with categories and directions.
4. Do verify perceptions with review of the records – don't depend on memory or approximations of facts as substitutes.
5. Engage data system owners and IR to help.

Don't –

6. Don't stop with one good or bad case, establish trends.
7. Don't oversample, if you need to know about a single course, you don't have to ask the entire college.
8. Don't hesitate to ask for translation if data is coded or groupings unclear.
9. Don't discard outliers, understand what they mean.
10. Don't expect to see as much data as you might suppose, historical records are often thinner than we might think.

APPENDIX C
THEMATIC ANALYSIS EXAMPLE

The following example demonstrates a simple thematic analysis and a few summary/ category options. The context is a survey at the end of a presentation.

Example One – Simple Three Category based on tone of responses

Positive

- Instructor used real examples.
- Supervisor was knowledgeable.
- I recommend this course to others.

Negative

- The pace of the course was too slow.
- The assignment could have been accomplished in less time.
- I would have liked more interaction.

Other

- I don't know.
- I am unsure.

Example Two – Naturally occurring themes without titles of categories and with frequency of responses in parenthesis

Responses:

- Was too long/slow (3)
- Instructor knew the material (3)
- I would have liked more interaction (16)
- Other people in my group should learn this subject too (2)
- I don't know (5)
- They want us to do things differently (2)
- OK (24)

Example Three – Thematic categories

Responses:

- Pace (course too slow, course too fast, course material redundant)
- Instructor quality (Instructor well organized, knowledgeable, uses meaningful examples)

In each example, the data are organized to communicate a summary of the total responses. In the examples, while clarity results from summation, there is also a loss of some of the information. It is important to select a level of summation that is appropriate for the work and audiences. In some cases a presentation of data in-total may be included in an appendices (or minimal summation as presented in examples one and two, with the report findings reflecting the more concise findings as reflected in the statements in example three.

Data Set/Responses, N=11 (11 people completed the forms)

Question One: What were your impressions of the training?

- Was too long
- Instructor was really good
- Could have been accomplished in less time
- Instructor used real examples
- Instructor did her homework. Knew the organization
- Could have been faster paced for this group
- I would have liked more interaction
- It was good, other people in my group should go too
- I don't know
- They want us to do things differently
- OK

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