Using PDSA Cycles to Improve Guided Pathways Efforts

Pathways Institute
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Plan for today's session

- **Why continuous improvement?**
- Using a Plan-Do-Study-Act cycle for continuous improvement
- Activity: Developing your own continuous improvement plans

What does "continuous improvement" mean to you?

We define continuous improvement as follows

An ongoing and structured process for educators to improve the quality of programs by identifying challenges, developing and testing options for improvement, and using data to inform program development

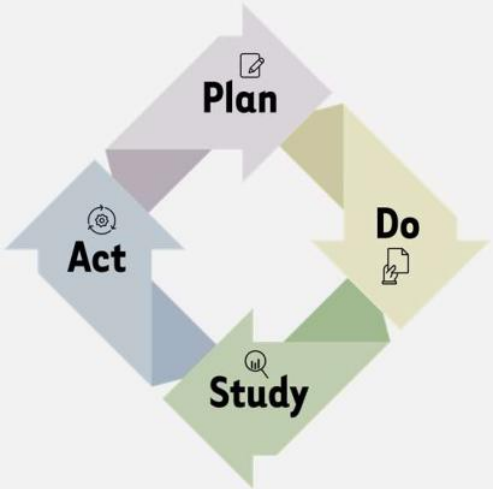
Why is continuous improvement valuable?

- ✓ Can be applied across many contexts, policies, and programs
- ✓ Can help colleges prioritize and address real issues that they face
- ✓ Ensures data use in colleges is valuable in driving program improvement
- ✓ Doesn't necessarily require complex research methods
- ✓ Facilitates long-term planning and improvement

Continuous improvement can help with guided pathways work

- Colleges implementing new initiatives and aren't always sure how best to do things
- Available evidence isn't sufficient
  - Rigorous research evidence doesn't often address common problems of practice
  - Professional development often anecdotal
  - Findings may not be as relevant to new models in new contexts

We recommend a four-stage improvement process



This model was developed by the Chartered Quality Institute and is used commonly for continuous improvement.

Key activities in the PLAN stage

- Identify the problem of practice
- Identify specific cycle objective(s)
- Identify measures and data, make predictions
- Define key activities
- Assign roles and responsibilities
- Lay out the timeline

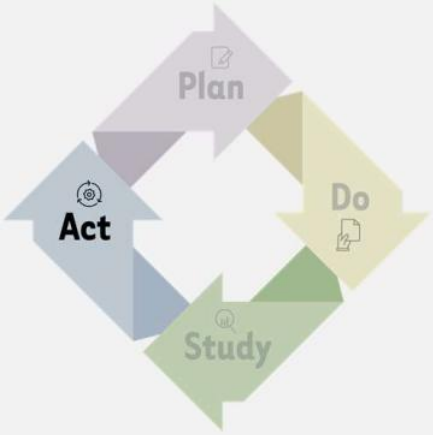
Key activities in the DO stage

- Test out a new improvement
- Provide clear guidance and ongoing support around how the improvement is implemented
- Collect data that informs improvement

Key activities in the STUDY stage

- Assess the data
- Reflect on findings with broad group of stakeholders
- Document what was learned

Key activities in the ACT stage



- Determine the changes to be made
- Share findings and improvement plans broadly
- Identify questions that require further study

An example: Ensuring alignment in two-instructor corequisites

- Smith College is struggling with pass rates in a college algebra corequisite
- After discussions with instructors and students, alignment across the college course and academic support highlighted as a possible driver of performance issues

PLAN: The college chooses instructional alignment as its problem of practice

PLAN: The college identifies an objective for the improvement cycle

Objective: Piloting new efforts to support alignment

- 4 hours of time meeting before/during semester
- Requirement to align syllabi and calendars

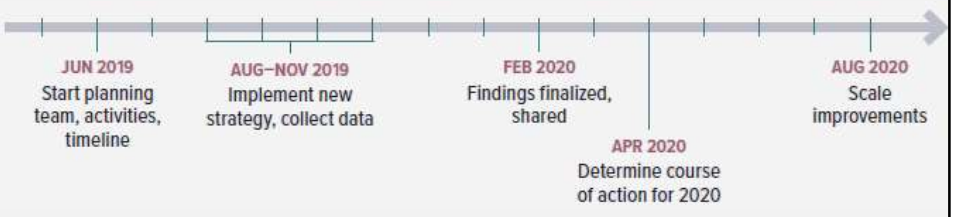
PLAN: The college figures out how it will measure improvement

- Student success: Are students passing the college course?
- Instructional alignment: Are courses and academic supports aligned?
- Instructional alignment efforts: How much time did instructors spend aligning?
- Barriers to alignment: What barriers did instructors face to alignment?

PLAN: The college lays out activities and identifies roles and responsibilities

	Faculty	Advisors	Deans, VP	Inst Research	Others?
Develop strategy	X		X		
Train instructors	X		X		
Schedule sections and enroll students	X	X	X		
Assign instructor pairs to groups	X		X	X	
Deliver (and align) instruction	X				
Collect data	X		X	X	
Assess and reflect on data	X		X	X	
Create and act on plan for improvement	X		X		

PLAN: The college develops a timeline for the improvement cycle



DO: The college pilots the new alignment strategy with a group of instructors

DO: The college collects a range of data

Administrative data
- Course passing
- Persistence

Student survey
- Perceived alignment of instruction

Instructor survey
- Time spent aligning
- Barriers and facilitators to alignment

STUDY: Shared syllabi instructors saw higher pass rates for students

STUDY: Students more likely to perceive instructional alignment with new strategy

"The work in the support course was closely related to what we were doing in the college-level course"

ACT: The college chooses a course of action

Improvements in program delivery: College plans to scale shared syllabi requirement to all two-instructor sections of the corequisite

Next continuous improvement cycle: Assess whether instructors are following through, identify barriers to aligning, and develop strategies to overcome barriers

Activity: Developing a PDSA cycle to improve your guided pathway initiatives

Each table has a problem of practice related to a common guided pathways initiative:

Issue	Problem of Practice
Major choice: Too many undeclared majors	Hard to track down students and get them to update majors
Math pathways: Few students going into non-algebra pathways	Students don't have the right info or incentives to go into them
Basic needs support: Students lacking resources and dropping out	Resources too dispersed and difficult for students to track down

Activity: Developing a PDSA cycle to improve your guided pathway initiatives

1) What new approach will you test? (choose 1 of 3 options provided)
2) How will you measure improvement?
3) What will the timeline be?
4) Who will be involved on the continuous improvement team?

Questions?

Toolkit available at www.rand.org

Email: Lindsay_Daugherty@rand.org

Using a Plan-Do-Study-Act Cycle for Continuous Improvement
Worksheet A for Guided Pathways Institute November 2019 Conference

<u>Problem of Practice:</u> Many students without a major at the end of 1st semester and college is struggling to reach undeclared students and get them to update majors.

Your college has tried to develop a plan to get all students into majors by the end of the first semester but continues to face challenges with large number of students without declared majors. As administrators, advisors, and other college staff investigate the root causes of these issues, they find that advisors are having a hard time contacting undeclared students and getting them to show up at the office to choose a major.

<u>Objective:</u> Choose 1 of the 3 objectives below for the PDSA cycle.

After talking with a broad range of staff who have insights on the issue, the college identifies three possible improvements it might test out to address the issue:

1) Build a block into the student information system that requires a meta-major for enrollment in the next semester's courses.
2) Send advisors into first-year courses to provide outreach and pull students aside for major selection.
3) Provide a way for students to update majors online and use a broad email and text-messaging campaign.

<u>Measures:</u> How will you measure whether you have made progress on your problem of practice? Identify at least three measures of improvement you'd like to track.

Measure of Success	**Data Source**
E.g. Percentage of students aware they need to have a major by end of 1st semester	*E.g. Student survey or focus groups*

<u>Timeline for the PDSA Cycle:</u> What is the timeline for the various activities that need to be carried out in a PDSA cycle?

Many experts believe that the ideal timeline for a full PDSA cycle is 90 days. While it can be difficult to stick to those ambitious timelines, you should aim to complete in a cycle in no more than one academic year. Map out a timeline below for some common PDSA cycle activities.

Key Activity	**Timeline**
Identify your problem of practice and key objective for the PDSA cycle	Oct-Nov 2019
Identify a continuous improvement steering group to oversee the process	
Prepare to roll out the new change you plan to test (e.g., train staff, develop materials)	
Pilot the new change with a group of students/ classrooms/instructors	
Collect data and analyze the measures described above	
Gather stakeholder input on the findings and possible plans of action	
Take action to scale change or start a new PDSA cycle	
Target end date	**Oct 2020 (at the latest)**

<u>Building a Continuous Improvement Team:</u> Identify the types of individuals who might be good to have on a team overseeing the PDSA process.

Consider the following questions and you develop a team of 4-12 people who will oversee the PDSA process. Who has important insights on the issue or can provide expertise on the activities? Who has the time to devote to regular meetings to oversee progress? Who has the authority to make change happen? How can the team be built to ensure everyone feels safe to contribute thoughts?

Types of Individuals to Include in a Continuous Improvement Committee

Using a Plan-Do-Study-Act Cycle for Continuous Improvement
Worksheet B for Guided Pathways Institute November 2019 Conference

<u>Problem of practice:</u> Few students going into non-algebra pathways, and one of the reasons is a lack of information reaching students and limited selection of non-algebra pathways once informed.

Your college has tried to develop a plan to get more students into math pathways but continues to face challenges with low enrollment. After investigating, the college find that backward mapping to align majors with math pathways has been done, and that barriers with transfer colleges have been overcome. Instead, it seems that the information somehow isn't always making it out to students about these alternative pathways, and when they are being informed, they are continuing to choose the algebra pathway as the default.

<u>Objective:</u> Choose 1 of the 3 objectives below for the PDSA cycle.

After talking with a broad range of staff who have insights on the issue, the college identifies three possible improvements it might test out to address the issue:

1) Develop informational fliers to be distributed to students.
2) Provide additional training for advisors and expose advisors to the different courses to help them better understand the options.
3) Require that all advisors make non-algebra pathways the default recommendation for students in certain majors.

<u>Measures:</u> How will you measure whether you have made progress on your problem of practice? Identify at least three measures of improvement you'd like to track.

Measure of Success	**Data Source**
E.g. Percentage of students aware non-algebra pathways are possible for their major.	*E.g. Student survey or focus groups*

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Worksheet C for Guided Pathways Institute November 2019 Conference

<u>Problem of practice:</u> Students not receiving the basic needs support because resources are too dispersed and hard to track down.

In talking with students about their reasons for dropping out, life issues such as limited resources for food and housing were identified as important. Your college has tried to develop a robust set of resources to provide support for these basic needs, but these resources are not being utilized by many students and the college wants to encourage greater use. According to students, one of the reasons they are not using the resources is that they are not aware of them or find them hard to get access to for other reasons.

<u>Objective:</u> Choose 1 of the 3 objectives below for the PDSA cycle.

After talking with a broad range of staff who have insights on the issue, the college identifies three possible improvements it might test out to address the issue:

1) Centralize all resources related to basic needs support into a single "one-stop" office.
2) Informational sessions in student success courses to inform students about the resources.
3) Create an online "ask for help" tool that then directs students to online informational resources on the various resources.

<u>Measures:</u> How will you measure whether you have made progress on your problem of practice? Identify at least three measures of improvement you'd like to track.

Measure of Success	**Data Source**
E.g. Percentage of students aware of the college's resources to address basic needs.	*E.g. Student survey or focus groups*

<u>Timeline for the PDSA Cycle:</u> What is the timeline for the various activities that need to be carried out in a PDSA cycle?

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