NOTE: *Please download a copy of this template for yourself. Rename the working copy before you begin your entries.*

First 2 Network PDSA Template — Cover Information
How the First2 Network Collects and Uses Improvement Science Data Each Institutional Team submits a proposal to the First2 Network Improvement Science Team (IST) to conduct a PDSA cycle of data collection and analysis for each proposed activity. Through coaching sessions and process tools, the IST guides each institution to ensure their data collection cycle has clear "learning questions" and metrics to provide evidence. When the data are collected, the Institutional Team analyzes its findings and produces a local report and shares the de-identified data findings across the First2 Network. This sharing enables other institutions to uptake effective change ideas quickly.

Name of Tester:	**Institutional Affiliation:**
PDSA Title *(see p 2 instructions)***:**	**Change Idea:** *(refer to the First2 Menu of Change Ideas)* Campus Clubs
Primary Driver: *(refer to the First2 Driver Diagram)*	
Secondary Driver: *(refer to the First2 Driver Diagram)*	
What is your anticipated timeline for completing this PDSA cycle?	**What is the IRB status of this PDSA?**
Is this an iteration of a previous high-quality PDSA? Yes ☐ No ☐	**If yes, please provide its title and a link from recent PDSAs listed in the PDSA Tracker.**

<u>NOTE to PDSA leaders</u> **about sharing metrics results with First2 Backbone:**
First2 expects PDSA leaders to share data from common metrics in **de-identified, aggregate** form with its data analysts (first2.measurement@gmail.com). Since First2 only needs **compiled** data in order to track administrative data about students participating in this PDSA activity over time (e.g., persistent enrollment, STEM major status, GPA), it is the **role of the PDSA testers to access student ID information** for these students.
Please see:Step by Step Institutional Data Collection Needed for First2.docx for more guidance.

First2 Campus Clubs PDSA Template

Instructions for Completing PDSA Template
This template is designed to support you in testing change ideas through PDSA cycles. It is organized by the 4 PDSA phases: PLAN, DO, STUDY, ACT. Fill the <mark>highlighted</mark> and [[bracketed]] areas with your campus's specific details. Use the linked guidance to assist you in completing the information requested.
PDSA Cycle—PLAN SECTION
Describe change Idea: TITLE [Additional Guidance](#)
Title your PDSA. Add the semester and name of your institution to the end of the title. TITLE, [[<mark>SEMESTER</mark>]] - [[<mark>CAMPUS</mark>]]
Refer to the [First2 Driver Diagram](#) and list the primary and secondary drivers that align with your PDSA. **Primary Driver:** **Secondary Driver:**

Enter two or more Learning Questions for your test. Learning Questions Guidance

1.

Make one or more Predictions for each learning question. Predictions Guidance

1.

Describe logistics around Implementation. [Implementation Guidance](#)

Describe logistics around Data Collection. Include links to surveys. Data Collection Guidance

Describe your required supplies, materials, and resources. Resources Guidance

PDSA Cycle—DO SECTION

Describe what happened when implementing the test. Additional Guidance

Describe what happened when collecting data. Additional Guidance

List anything that was unexpected or surprising. Additional Guidance

PDSA Cycle—STUDY SECTION
Document what you <u>observed</u> about your data. **Additional Guidance**
Document how you <u>interpreted</u> your data. **Additional Guidance**
Describe whether your prediction came true (in full or in part). **Additional Guidance**
Describe your team's key learnings from this test. **Additional Guidance**

PDSA Cycle—ACT SECTION
Decide whether your team will recommend to Adapt, Adopt, or Abandon the change idea. Include your reasons for this decision. **Additional Guidance**

ADDITIONAL GUIDANCE FOR COMPLETING EACH SECTION

PLAN Describe the Plan: Fill the ==highlighted== and [[bracketed]] areas with your campus's specific details. List the specific activities, events, and meetings that your club will offer during the semester.

Ask: Is your change idea detailed enough such that someone new to the group could read your description and understand what the team is working on during this test?
Example: *We will create an official First2 club on campus. The club will meet weekly with activities for first-generation STEM students that promote a sense of belonging with peers and faculty.*

Consider the following at a high level (details will be added in the Implementation section):
- *Who* is going to do *what?*
- With *whom* are they going to do it?
- *When* and *where* will it happen?

Consider whether this change idea could be scalable and sustainable (expanded to other institutions and repeated based on available resources).

Back to PLAN

PLAN Learning questions Instructions: Your Learning Questions for this test should combine two things: (1) the change idea you are testing (campus clubs) and (2) the intended outcome that your team believes participation in campus club events will improve (i.e. students' sense of belongingness and persistence in STEM studies).

NOTE: This test must support the overall goal of the First2 Network from the Driver Diagram and include **at least** one of these 6 Primary Outcome measures.

1. Persistence (re-enrollment)
2. Course completion rate
3. Course pass rate and/or grades
4. Belongingness
5. Grit
6. Self-efficacy

Consider the following: What is an outcome you can reasonably achieve within this test of change?

Example Learning Question 4 (if your institution chooses to add a 4th question): *How many First2 Scholars and Directors, other 3rd- and 4th-year students, STEM faculty and staff attend at least one Campus Club event each month?*

Predictions Instructions: Fill in the details of your predictions. Your predictions are measurable (you can gather data to confirm or disconfirm your predictions) and relate back to your learning question for this test. Think of your prediction as reframing your Learning Question as a hypothesis, testing whether your team's change idea will result in improvement during this test.

All clubs will collect data on the minimum set of students specified in the Predictions (first-generation, first- and second-year STEM majors). You are welcome to also broaden the group for which you collect data, recognizing that it will also increase the number you take 10% of to get your target prediction for attendance. For instance, you might want to also collect data for first-gen students of any year, or for other underrepresented students.

Example: 2. *We predict that at least 80% of students who attend at least one campus club event each month will increase their sense of belongingness as measured by the Belonging Scale.*

Make sure that:
- Your predictions are measurable.
- You've noted whether Qualitative and/or Quantitative data will be used to assess the prediction.
- Your team has a clear idea for data needed to confirm or disconfirm your predictions.

Back to PLAN

PLAN Logistics-Implementation: Develop a detailed plan for how your team will implement the change idea during this test. Your logistics plan for implementation should consider all phases of the change idea: preparation, training, staffing, enacting, closeout, etc.

List details for your Campus Club on how/where/when you will recruit students. List how often you plan to meet, and what specific campus-wide events you might plan (if any). What do you plan to focus on: Social interactions? Mentoring? Study groups? Campus resources?

Example: *An email will be sent to all first-generation first- and second-year STEM majors encouraging them to attend Campus Club meetings on a regular basis. Reminders will be sent of each meeting.*

NOTE: All campus clubs in the network will use one of two Qualtrics Campus Club Intake and Post Surveys (one includes 3 additional questions about students' sense of their own leadership skills) If you want to add additional questions or a different scale (like Resilience, for example), we can provide validated questions for you to use. First2 can provide you with a deployable survey in Qualtrics using other survey questions your team wants to add.

Always consider the following for implementation:
- *Who* is going to do *what?*
- With *whom* are they going to do it?
- *When* and *where* will it happen?
- What is needed to make this happen?

PLAN Logistics- Data Collection: Develop a detailed plan for how your team will <u>collect data</u> for any institution-specific learning questions, including both process and outcome measures. Refer to the <u>Primary Outcome Measures listed in this spreadsheet</u>.

Decide what <u>process measures</u> you are going to collect and how the team is going to collect them. Process measures help you determine whether your plan is enacted as intended.

<u>Example:</u> *We will track how many students attend each event via a Google survey, and measure whether students who attend at least one event each month (4 total) develop a greater sense of belonging as measured by the Belonging Scale.*

Decide what <u>outcome measures</u> you are going to collect and how the team is going to collect them. Outcome measures help you determine whether your Predictions will be confirmed or disconfirmed and help you answer your Learning Question.

<u>Example:</u> *We will coordinate with administration to determine whether students who attend at least one Campus Club event per month will perform better academically compared to peers who did not attend regularly, as measured by academic probation status and continued enrollment in the STEM major for the next semester.*

Your data collection plan should include how you will collect the data (e.g., Google Form survey), where they will be stored (e.g., Google Drive folder), and who will have access to the data. Consider how you will protect people's privacy and keep their data confidential. Your team should upload data collection instruments (e.g., surveys) to a shared location.

Consider the following <u>for data collection</u>:
- *Who* is going to do *what?*
- With *whom* are they going to do it?
- *When* and *where* will it happen?
- What is needed to make this happen?
- Are you protecting privacy of individuals when collecting data?

PLAN Resources Needed: Describe what your team will need to implement the change idea and collect data. Refer to your team's description of the change idea and the two logistics sections above.

Consider the following:
- What will your team need across all phases of the change idea: preparation, implementation, closeout?
- What will other stakeholders need: students, faculty, etc.?
- Consider non-physical needs: time, space, scheduling, access, etc.

Method of tracking attendance can vary across campuses as different clubs might want to track this with different processes/tools.

Please update the section at left to include details or links to your intake form, Belonging Scale survey and attendance tracking method.

Back to PLAN

DO-Describe what happened: Refer to the Implementation Logistics section of your PLAN template for the key tasks that were supposed to occur.

For each key implementation task, describe what actually happened (rather than what was supposed to happen). Describe anything that made either implementation or data collection harder or easier than planned. Ask yourselves: "Are we providing enough detail to understand whether the test was implemented as planned?"

Consider the following for implementation:
- *Who* did *what*?
- With *whom* did they do it?
- *When* and *where* did it happen?

Back to DO Section

DO- Describe Data Collection: Refer to the Data Collection Logistics section of your PLAN template for the key tasks that were supposed to occur.

For each data collection task, describe what actually happened (rather than what was supposed to happen). Ask yourselves: "Did we describe what did (or did not) happen for each type of data we planned to collect?"

Be certain to protect privacy, using aggregated group data and removing individual identifying information.

Add any appendices of collected data to your institutional team's folder in the Google Drive.

Consider the following for data collection:
- *What* data were collected?
- *Who* collected the data from *whom*?
- Did you collect the data *when* you planned to?

Back to DO Section

DO Surprises: Describe anything that happened during either implementation or data collection that was not anticipated.

Consider the following:
- What differed from the PLAN template?
- Did you need different supplies, materials, training, supports, etc. from what you expected?
- Did you need different timing, scheduling, etc. from what you expected?

Back to DO Section

STUDY Observations: Refer to the <u>Data Collection Logistics</u> section of your PLAN template and the <u>What Happened When Collecting</u> Data section of your DO template for the data your team collected during this test.

For each data source, review the findings as a team and provide time to share what people <u>observed</u> about the data. Observations should be low-inference statements that are explicitly tied to data.

<u>Example:</u> *Our team saw that 20% of students marked 'Strongly Agree' to the question 'I have meaningful relationships with other students in my major' before the immersive experience. We also noticed that this number increased to 45% of students marking 'Strongly Agree' after the immersive experience.*

Protect people's privacy when reviewing your data. Observations should focus on trends, themes, and group data and not individual data. If reviewing individual data is required, protect people's confidentiality by removing or replacing identifying information (e.g., "Student #1")

Consider the following for <u>observations</u>:
- Are specific data points clearly identified in your observations?
- Are you adding extra interpretation or meaning beyond what the data indicate?

Back to STUDY

STUDY Interpretation: For each data source, review the findings as a team and provide time to share what people <u>interpreted</u> about the data. Interpretations should extend the thinking of the group beyond what the data immediately indicate while providing a clear rationale.

<u>Example:</u> *We noticed that the number of students marking 'Strongly Agree' to the question 'I have meaningful relationships with other students in my major' increased from 20% to 45%. The events with the greatest attendance were the opening and closing events. The events in the middle of the program were sparsely attended. Therefore, we interpret the opening and closing events as being the most likely to have affected the change in survey results.*

Consider the following for <u>interpretations</u>:
- How can you connect different pieces of data?
- Are your interpretations still grounded in the data even if they add new meaning?

STUDY-Predictions: Refer to the <u>Prediction</u> section of your PLAN template for the predictions your team thought would result from the test.

For each prediction, document whether the prediction was "Met in Full," "Met in Part," or "Not Met."

Consider the following:
- What data from your data collection are you using to assess each prediction? Be specific.
- Do you have a consensus on whether the predictions were met?

Back to STUDY

STUDY-Key Learnings: Ask yourself about the "why" behind the results of your predictions and your learning goal.

If your team marked a prediction as "Met in Full," what else did you learn from the test? If your team marked a prediction as "Met in Part" or "Not Met," why do you think the prediction turned out as it did?

Consider the following:
- Refer to your data. What do the data suggest?
- What did you learn from unexpected happenings during your test?
- What can you learn from the obstacles you encountered?
- What do you know now that you wish you knew at the start of the test?

Back to STUDY

ACT: Teams should *ADAPT* a change idea when they are working on improving implementation and/or adjusting the change idea to make it more effective. *ADAPT* is the most common choice as more testing is often required. If you choose *ADAPT*, describe what your team will do differently for the next PDSA cycle.

Teams should *ADOPT* a change idea when the data indicate that the change idea results in measurable improvement and teams can enact the change idea consistently.

Teams should *ABANDON* a change idea when the data show the change idea is consistently not resulting in improvement, when teams struggle to implement the change idea, and/or when the team no longer feels invested in the change idea.

Consider the following:
- What data from your data collection are you using to make this decision? Be specific.
- What does your team think about the consistency of the implementation?

- How many attempts has your team made to adjust the change idea thus far?
- Is this scalable and sustainable; i.e., can it be repeated based on available resources and expanded to other institutions?

Back to ACT