





XM SCIENTIST  
QUALTRICS

Samantha Murray

# **Achieve Breakthrough Results: Using Student Experience as a Leading Indicator to Drive Continuous Learning and Improvement**

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qualtrics<sup>XM</sup>

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# Student Experience Matters

A personalized, integrated and coherent student experience will become a key differentiator for higher education institutions ... Your team should use both qualitative and quantitative methods to understand what the current student experience looks like and where pain points exist.

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Gartner

# Today's Discussion

- Experience as a leading indicator
- Measurement for what purpose?
- Understand variation
- Taking action
- Framework and roadmap
- University examples

# EXPERIENCE AS A LEADING INDICATOR

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## Leading Indicators In Education

**Leading Indicator:** Systematically collected data on an activity or condition that is related to a subsequent and valued outcome, as well as the processes surrounding the investigation of those data and the associated responses.

1. Antecedents to important events that predict or foreshadow those events
2. Not fixed characteristics of individuals or systems; rather, they are conditions or activities that can be changed by action.
3. The search for leading indicators catalyzes a productive inquiry that results in the rethinking of organizational resources or supports
4. The search for leading indicators may help identify or develop more relevant and precise indicators



### In Search of Leading Indicators in Education

Jonathan A. Supovitz  
*University of Pennsylvania, JONS@GSE.UPENN.EDU*

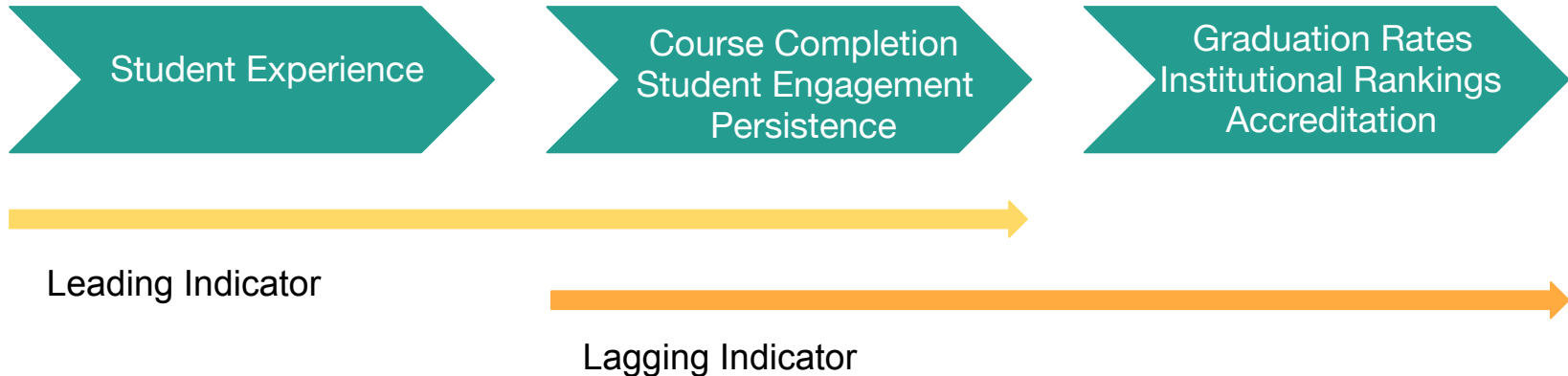
Ellen Foley

Jacob Mishook

# Experience as a Leading Indicator

**Leading indicators** help to predict outcomes and enable proactive action. Leading indicators offer the expectation that influencing them can lead to changes in outcomes and future state.

**Lagging indicators** are output/outcome measurements with limited predictive power that are not directly actionable. Lagging indicators can only record what has happened and confirm trends.



# MEASUREMENT FOR WHAT?

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## Measurement for Different Purposes

Research and Evaluation	Accountability and Compliance	Learning and Improvement
<ul style="list-style-type: none"> <li>Produce new knowledge of widely generalizable or universal value.</li> <li>Research/evaluation findings do not need to have a practical use or application.</li> </ul>	<ul style="list-style-type: none"> <li><b>Reactive</b> - Data on outcomes or results; for reporting purposes</li> <li>Data are too far downstream and are often considered <b>lagging indicators</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Proactive</b> - Data to inform efforts to change; for <b>learning purposes</b></li> <li>Data collection should be short, repeated &amp; show trends over time.</li> <li>Improvement data are <b>leading indicators</b></li> </ul>
<ul style="list-style-type: none"> <li>Measurement for research is typically <b>too slow</b>, too expensive, and too elaborate</li> <li>Limited usefulness for improving processes in single classrooms, schools or institutions.</li> </ul>	<ul style="list-style-type: none"> <li>This is the <b>“WHAT” data</b>, and schools have plenty of it.</li> <li>Knowing this data does not tell you anything useful about the “WHY.”</li> <li>Value for improvement is limited.</li> </ul>	<ul style="list-style-type: none"> <li>Improvement activities should be fast-paced and cyclical.</li> <li><b>“WHY” data</b> is <b>context</b> to help identify <b>root cause</b> to more consistently produce positive outcomes.</li> <li>Enables a school, organization or business to understand <b>variation</b> —what works, for whom, and under what set of conditions.</li> </ul>

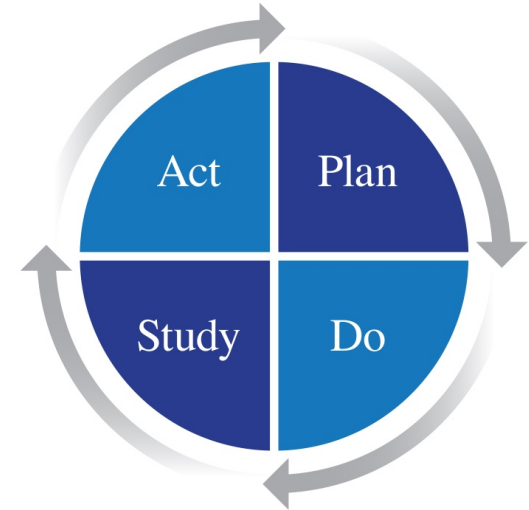
## Systemic Process for Learning and Improvement

**PLAN:** A change or a test, aimed at improvement

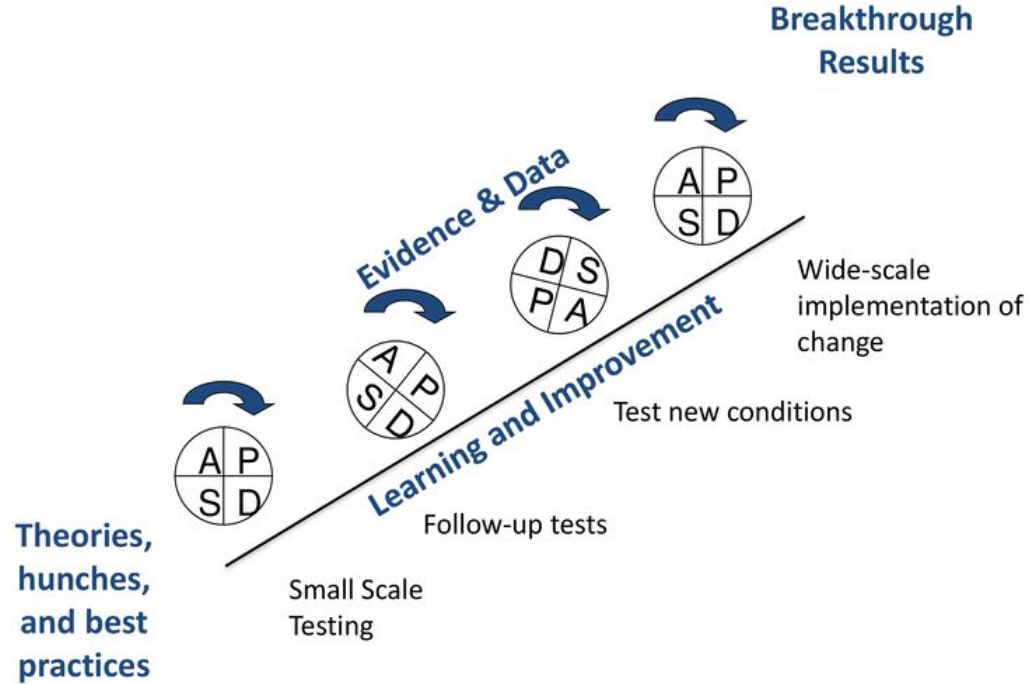
**DO:** Carry out the change or the test, preferably on a small scale

**STUDY:** Review the data. What did we learn? What went wrong?

**ACT:** Adopt the change, abandon it, or run through the cycle again



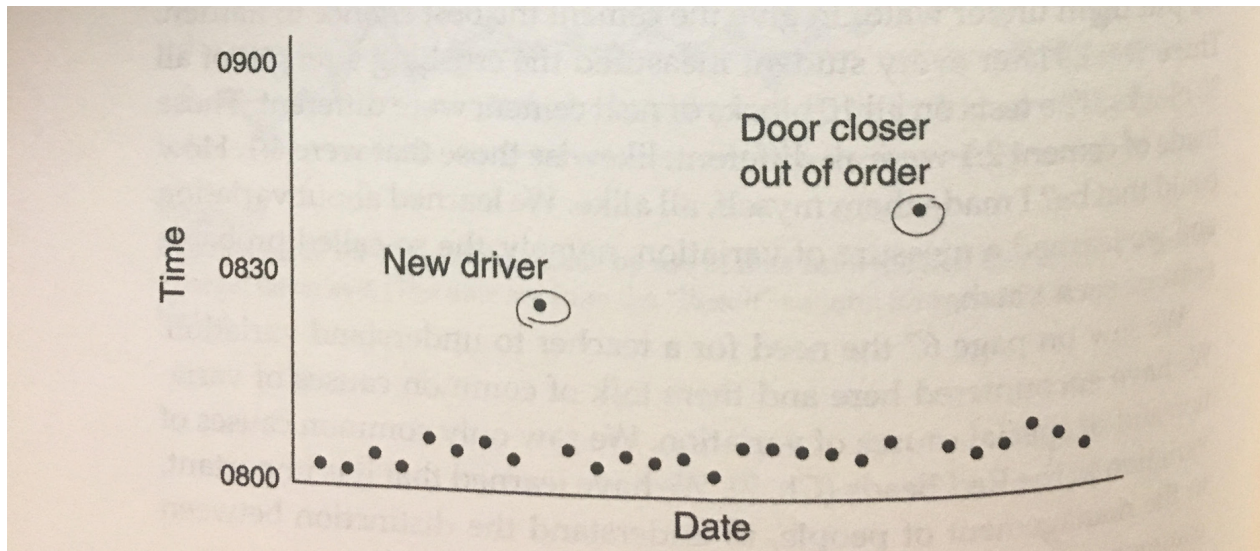
The PDSA Cycle (Plan-Do-Study-Act) is a systematic process for gaining valuable learning and knowledge for the continual improvement of a product, process, or service. Also known as the Deming Wheel, or Deming Cycle, this **integrated learning - improvement model** was first introduced to Dr. Deming by his mentor, Walter Shewhart of the famous Bell Laboratories in New York.  
<https://deming.org/explore/p-d-s-a>



# UNDERSTAND VARIATION

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# Patrick and the School Bus



# Understand Variation

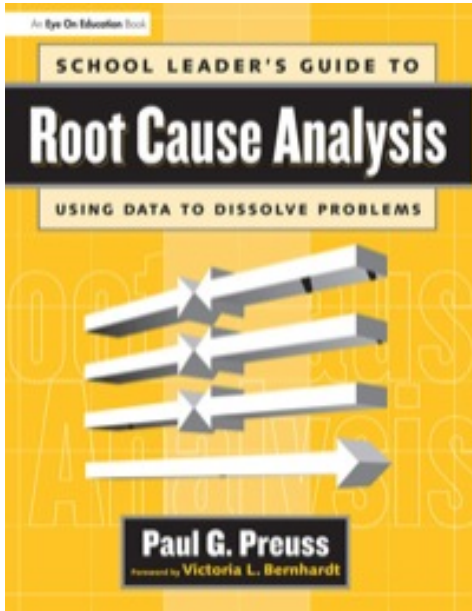
Variation has two types of causes:

- **Common** - causes that are inherent in the process or system itself, always present, and affect everyone working in the process; it affects the output
- **Special** - causes that are not part of the process or system all the time or do not affect everyone, but arise because of specific circumstances; periodic and unpredictable.

Understanding variation is critical knowledge, particularly for leaders.

**Why?** Decisions are often based on interpretation of patterns of variation in data, which also aids in assigning responsibility for improvement.

# Root Cause Analysis



## What is “Root Cause”?

The most basic reason the problem occurs // The deepest underlying cause, or causes, of positive or negative symptoms within any process that, if dissolved, would result in elimination, or substantial reduction, of the symptom.

## Why Root Cause Analysis?

- Helps dissolve the problem, not just the symptom
- Eliminates patching/tinkering and wasted effort
- Conserves scarce resources
- Induces discussion and reflection
- Provides rationale for strategy selection

# Understand Variation

**Not** understanding variation can lead to:

- Making people “work harder” to get better results within the same system
- Wasting time trying to explain a perceived trend when nothing has actually changed
- Taking action when it would have been better to do nothing (tampering w/ common cause)
- Ignoring systemic improvements
- Treating common cause variation like a special cause (leads to greater variation, mistakes, and defects)

# Some Lessons in Variation

- All variation is **caused**
- Distinguish between special and common causes. Plot data over time to understand what is common variation and determine what constitutes special variation.
- Observe before acting - seek to understand
- When all variation is common cause, the system is said to be stable, predictable. Therefore, the response required is a change in the system itself.
- **Improvement requires leaders to have an understanding of variation**

# TAKE ACTION

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## Nike's Multi-Million Dollar Problem



Williamson's left shoe fell apart as he planted hard near the free throw line. The blue rubber sole ripped loose from the white shoe from the heel to the toes along the outside edge, with Williamson's foot coming all the way through the large gap.

Special or Common Cause Variation?

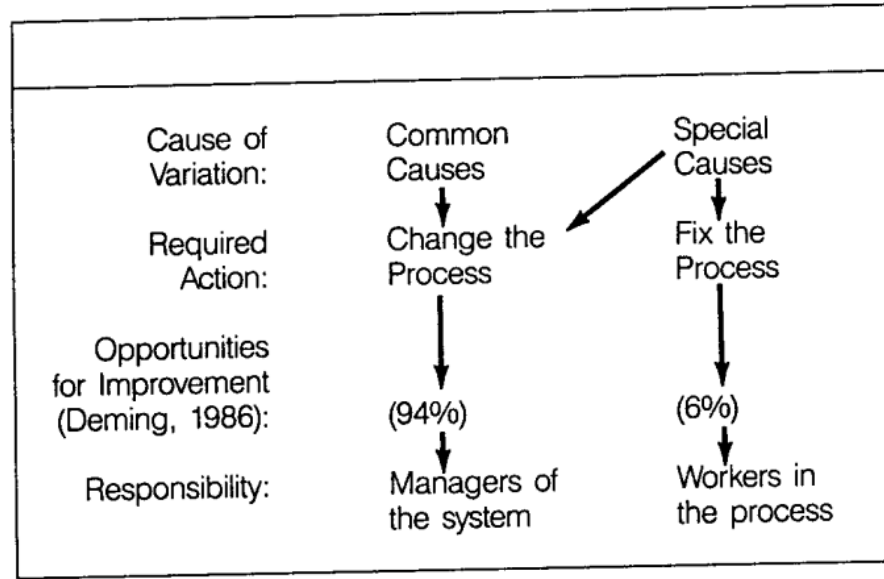


# Nike Statement

"We are obviously concerned and want to wish Zion a speedy recovery. The quality and performance of our products are of utmost importance.

While this is an **isolated occurrence**, we are working to **identify the issue**."

# What Might Nike Ultimately Need to Do?



**Common** - causes that are inherent in the process or system itself, always present, and affect everyone working in the process; it affects the output

**Special** - causes that are not part of the process or system all the time or do not affect everyone, but arise because of specific circumstances; periodic and unpredictable.

## Action Based on Variation Type

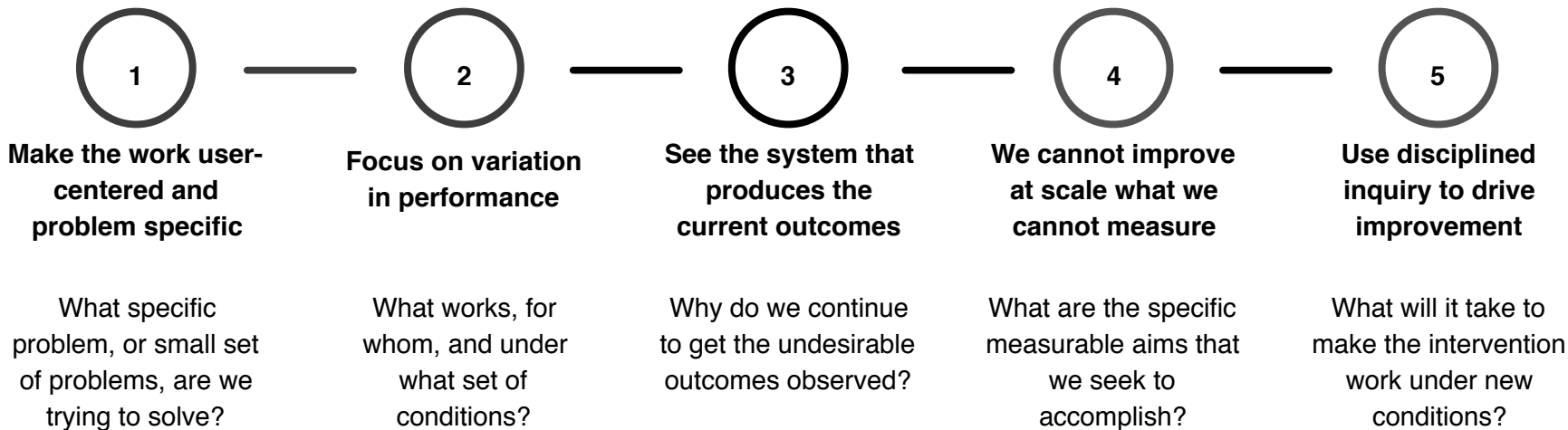
Type of Action	Action Description	Type of Variation
Immediate Response	Solving immediate issues	Common Special
Corrective Action	Fixing process or service problems by taking action right away	Common Special
Continuous Improvement	Identifying and solving root causes to problems	Common
Strategic Change	Applying insights to key strategic decisions	Common

# A FRAMEWORK AND ROADMAP

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# Improvement Framework

## IMPROVEMENT SCIENCE PRINCIPLES



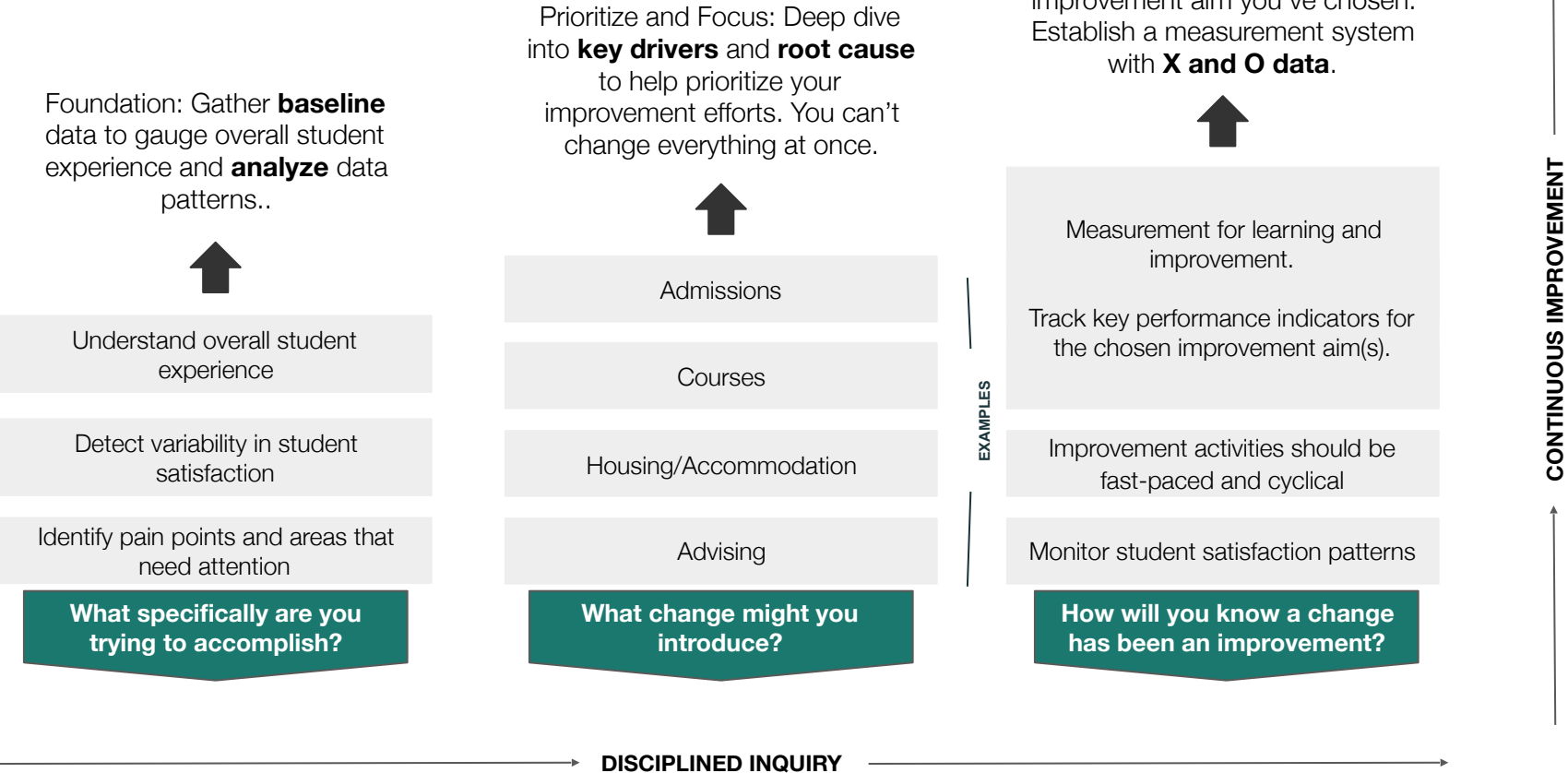
## 3 Core Improvement Questions

What specifically are you trying to accomplish?

What change might you introduce?

How will you know a change has been an improvement?

# Roadmap



# **3 UNIVERSITIES**

# **3 DIFFERENT APPROACHES**

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# Student Journey Mapping

Another key client of Qualtrics has mapped out 49 touchpoints across their student journey. They plan to (future state) collect data on each individual touchpoint and have begun the journey of scaling Qualtrics across 15-20 key priority touchpoints to start with.

At a high-level, this was broken down into 3 primary segments (with many touchpoints residing within each stage)

- Prospective Student Experience
- Current Students Experience
- Recent graduates Experience

Using Qualtrics, they were able to understand the overall experience satisfaction at an aggregate level:

**Prospective** = 4.3   **Current** = 3.5.   **Recent** = 4.1.

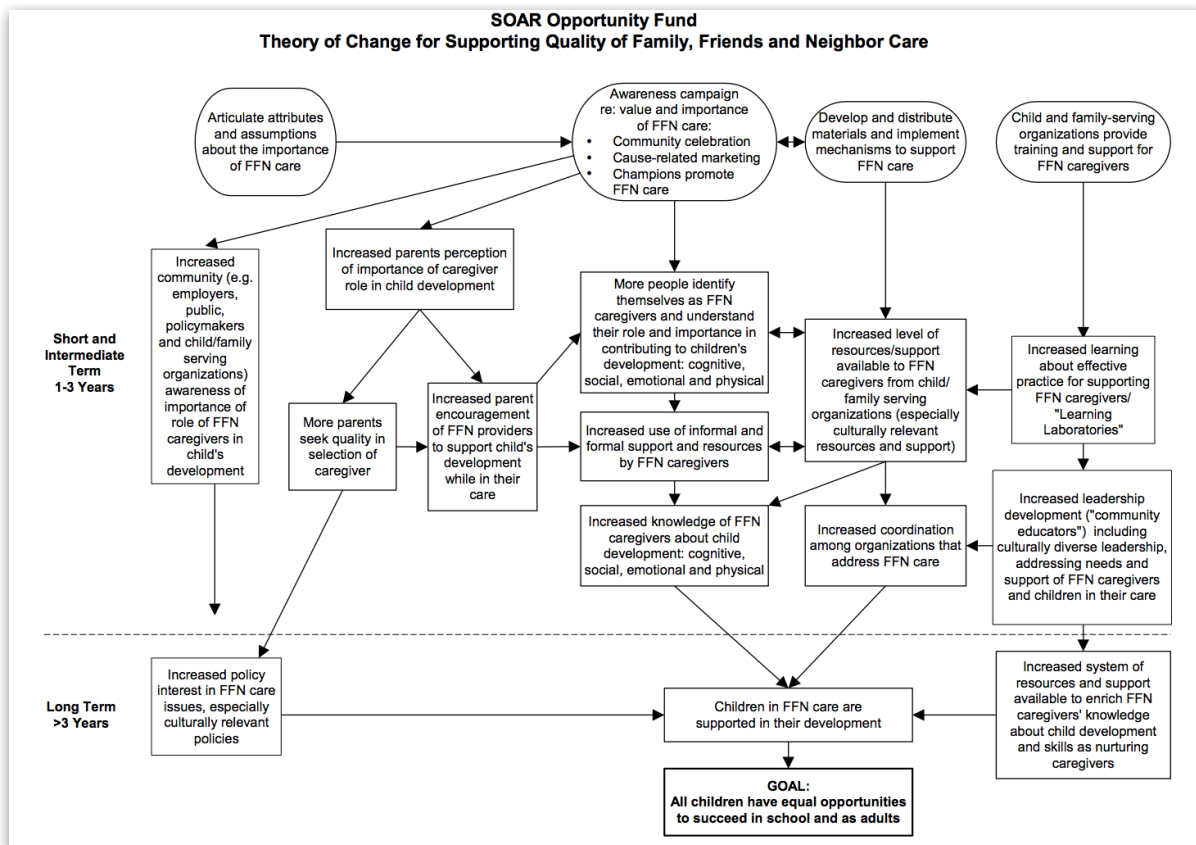
**Average Total Student Experience** = 4.2

Drilling into the CURRENT STUDENT stage, highlighted volatility across key touchpoints within this area.

**Administration** = 1.8   **Learning** = 4.2   **Navigation** = 4.8   **Facilities** = 3.5   **Application** = 3.5   **Onboarding** = 3.0

**Average Total Current Student Experience** = 3.5

# Theory of Change



# Programmatic

“Jackson College is using Qualtrics to increase student engagement and improve student retention. Jackson saw persistence rates improve over a two-year period from 23% to 51% for its most at-risk student population.”

On Thu, Sep 29, 2016 at 4:04 AM, Hampton Lee M <[HamptonLeeM@jccmi.edu](mailto:HamptonLeeM@jccmi.edu)> wrote:

Greetings,

My name is Lee Hampton, Director of Multicultural Affairs, and I want to welcome you to Jackson College. President Phelan and Jackson College are deeply committed to the success of all students with a special focus on increasing outcomes of success for males of color. We have a student success [assessment survey](#) for you to take to provide the College a better understanding of you and to better enable us to offer you greater support while you are enrolled at Jackson College.

After the [assessment survey](#) is taken you will be contacted by the College to go over your assessment results. The [assessment survey](#) should take approximately 25 minutes and is set up for you to take from either a desktop computer or mobile device.

We look forward to assisting you in having a successful and excellent experience here at Jackson College. If you have questions, please do not hesitate to contact our office by calling [517.796.8480](tel:517.796.8480). Thank you for choosing Jackson College.

Sincerely,

Lee Hampton  
Director of Multicultural Affairs  
Jackson College  
2111 Emmons Road  
Jackson, MI 49201  
[517.796.8470](tel:517.796.8470)  
[hamptonleem@jccmi.edu](mailto:hamptonleem@jccmi.edu)

[REDACTED]  
**Date:** September 29, 2016 at 1:29:44 PM GMT-5

**To:** Hampton Lee M <[HamptonLeeM@jccmi.edu](mailto:HamptonLeeM@jccmi.edu)>

**Subject: Re: Welcome to Jackson College from Multicultural Affairs<br>**

I have never taken an assessment of that nature before and it made me really think about my life and me as a black man. For some reason it seem like it was meant for me to attend Jackson. This email alone made me feel something on the inside that i cant explain. It was a good feeling though. I just want to thank you for reaching out to me because i am a male of color and have over come alot of obstacles in my life. I just want a degree. I know i need one for my family and i am tired of living the "hood" "Street" life. I have always been very smart but i never really had the chance to grow. Its crazy that i do not even know who i am emailing but i feel somewhat connected to the person on the other end of this email. I just had to get that off my chest and I hope you have a good day

[REDACTED]

# CONCLUSIONS

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# Takeaways

- Experience is a leading indicator
- The system driving improvement is more important than the metric you choose to track
- Focus on measurement for improvement and disciplined inquiry
- Leaders should have at least a conceptual understanding of variation
- “Work harder” is not an effective solution
- The type of action you take should be based on the type of variation found in the data

# What can you do?

- You can begin collecting data at any time—start now to gather baseline data
- Stop using lagging indicators to drive improvement
- Take appropriate action based on the type of variability detected in your data
- Leverage technology

# Thank You!

Questions? [samantham@qualtrics.com](mailto:samantham@qualtrics.com)

Samantha A. Murray, M.S.Ed.

Education Experience Management (XM) Scientist, Qualtrics



# BREAKOUT BREAK

1:50-2:10PM

We'll be back in **20 MINUTES**  
In the meantime, why not  
grab a tea or coffee outside?