

MEASURING IMPACT THROUGH PROGRAM EVALUATION

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- External evaluation firm, started by **Dr. Wendy Tackett** in 2002
- iEval focuses on helping programs use data in meaningful ways to improve programs and make progress to intended outcomes
- iEval works primarily in the fields of education and health

iEval works with educational, healthcare, and nonprofit clients throughout the United States in Alaska, Florida, Indiana, Louisiana, Michigan, Ohio, Oklahoma, & Washington DC



Paul Tackett



Corey Smith



Dr. Kristin Everett

GOALS FOR TODAY

- Introduce basic evaluation principles
- Understand alternative ways to measure impact
- Work through evaluation design scenarios
- Learn how to use evaluation results

YOUR INVOLVEMENT

- Go to **slido.com** and use the event **#MERA2017**
 1. **Ask questions** that you'd like answered throughout the day
 2. **"Like" questions** to elevate their importance - they'll get answered first
 3. **Take the polls** when prompted

THE COOKIE ACTIVITY

- Get into groups of 4-5 people
- Each group takes one of each cookie



- **Task: Determine which is the BEST cookie and defend your decision**



COOKIE DEBRIEF

- Which cookie did you determine was the best?
- How did you determine the definition of “best?”
- After hearing how other groups defined “best,” would you change your definition?

$$D + V = E$$

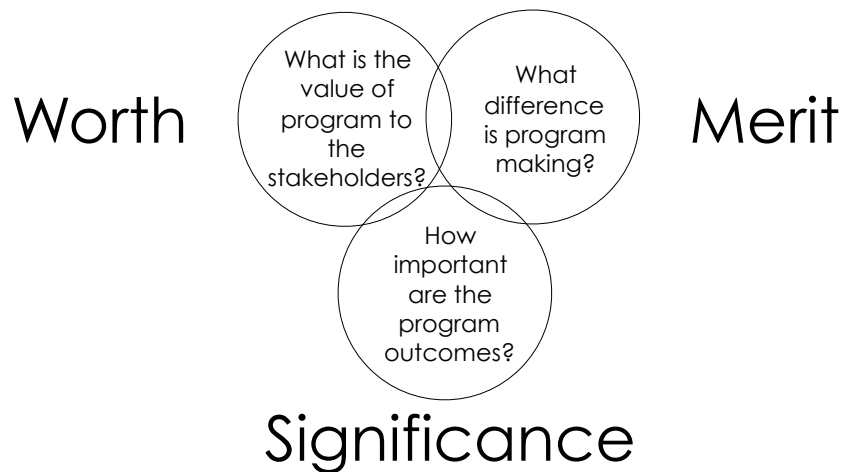
- **Data** (research on how, what, & why)
- **Value** (applying dimensions of worth and merit and determining significance)
- **Evaluation** (application of value to the data)

WHAT IS PROGRAM EVALUATION?



- Systematic approach to determine the worth, value, or merit of something
- Typical uses include:
 - improvement
 - monitor progress
 - determine continuation, change, expansion, or dissolution
 - fulfill federal/state/local requirements

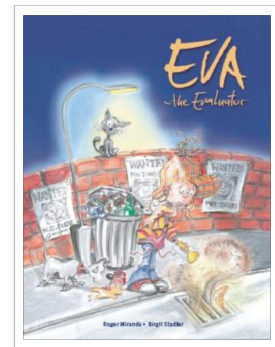
WHAT IS EVALUATION?



EVA THE EVALUATOR

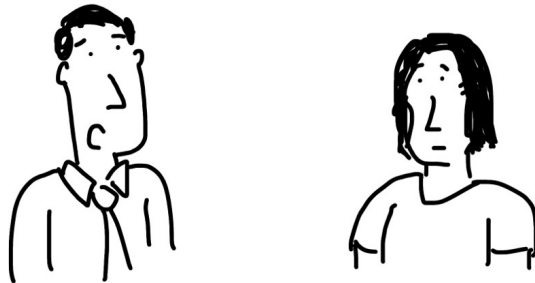
- **Eva the Evaluator**, by Roger Miranda, is a children's book that explains what evaluators do in a FUN way!

(download the video at www.ieval.net)



WHY SHOULD I START WITH AN EVALUATION PLAN?

Wow, your program was developed using research based theory. I think ours is based off of some rich guy's gut instinct.



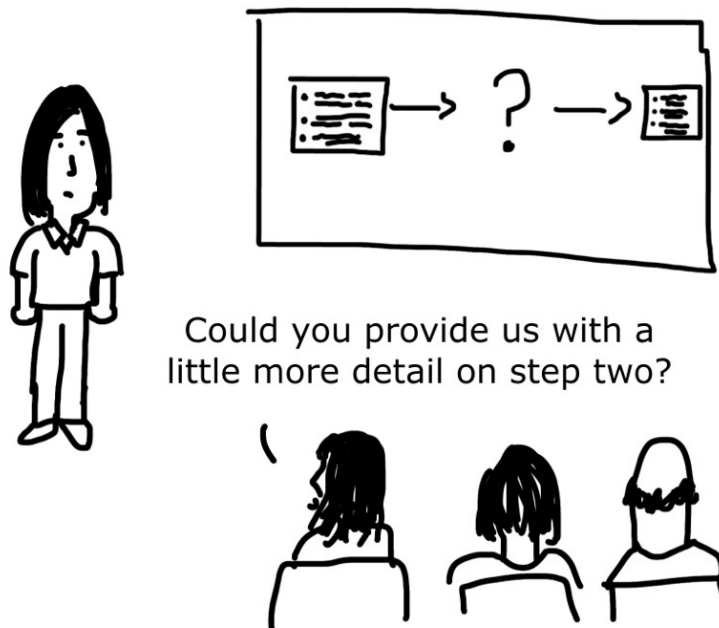
freshspectrum.com

EVALUATION PLAN FIRST

- How do you know when you've achieved success if you don't know where you're going?
- Every program is based on a theory of how and why it will work (e.g., theory of change, logic models)
- The key to understanding what really matters is through identifying the program theory
- Evaluation plans are based on the program theory

MOST COMMON: LOGIC MODELS

- Graphic display of boxes and arrows that illustrate relationships and linkages
- Often thought of as a strategic plan that lays out the path from activities to outcomes
- Framework for describing the relationships between investments, program elements/ activities, and outcomes
- Provides a common approach for integrating planning, implementation, evaluation, and reporting



LOGIC MODEL DESIGN

- Visual depiction of how the activities you are planning using the inputs you have can lead to short-term outcomes, long-term outcomes, and overall impact
 - Inputs/Resources - time, funding, people, & other resources
 - Activities - what will occur as part of the project
 - Outputs - numbers you track
 - Short-term outcomes - 1-3 years
 - Long-term outcomes - 4-6 years (*may need to adjust along the way*)
 - Impact - 7-10 years

LOGIC MODELING EXERCISE

Your school district is focusing teacher professional development on mathematics content and pedagogical content knowledge. Teachers will attend a two-week Intel Math training in the summer, participate in monthly PLCs during the school year, and engage in classroom coaching with a mathematics education expert from a nearby university.

How will you know if this professional development is successful?

TYPICAL PD PROGRAM LOGIC



LOGIC MODEL DESIGN

Inputs/ Resources	Activities	Outputs	Short-term Outcomes	Long-term Outcomes	Impact
Partnership with mathematics education professor at nearby university	Classroom coaching	8 classroom visits per teacher	Teacher content knowledge & pedagogical content knowledge improves	Classroom instruction improves	90% of students in classrooms of participating teachers perform at or above grade level based on NWEA MAP

EVALUATION USING A LOGIC MODEL

Inputs/ Resources	Activities	Outputs	Short-term Outcomes	Long-term Outcomes	Impact
Partnership with mathematics education professor at nearby university	Classroom coaching	8 classroom visits per teacher	Teacher content & pedagogical content knowledge improves	Classroom instruction improves	90% of students in classrooms of participating teachers perform at or above grade level based on NWEA MAP
To what degree is partnership meaningful? What changes have happened because of partnership?	What components constitute classroom coaching? How will those components be tracked?	How classroom visits were there for each teacher? How many hours of other PD did each teacher attend?	To what degree did teacher content & pedagogical content knowledge change after the PD?	What elements of classroom instruction are important to change? To what degree did those elements change?	What % of students in participating teachers' classrooms performed at or above grade level? How did that compare to students in other classrooms?



**ASK THE
EVALUATOR**



ONE WORD

Go to slido.com using MERA2017 and answer the poll:

Please share one word that describes how you are feeling right now about the concept of evaluation.

(also remember to type in any questions you may have here & vote to elevate a question's importance)

WHEN TO USE WHAT?

- Student data
- Participation dosage
- Surveys
- Interviews
- Observations
- Fidelity of implementation

STUDENT DATA

- Don't solely rely on student data to evaluate a program
- Think about both growth and achievement
- The more personal judgement removed from the student data, the more reliable the findings will be across students, classrooms, buildings

	Growth	Achievement	Personal bias
State assessments	no	yes	no
Externally developed assessments (e.g., NWEA MAP, F&P, Dibels, Performance Series)	yes	yes	no
Locally developed assessments (e.g., unit tests, quizzes)	no	yes	yes
Portfolio review	yes	yes	yes

PARTICIPATION DOSAGE

- How often are administrators, teachers, or students participating in an intervention overall?
- To what degree are they participating in components of the intervention?
- How does individual participation affect others?

SURVEYS

PROS

- Immediate feedback
- Easy to administer, particularly online
- Better when have pre & post for comparison
- Qualitative & quantitative data
- Can measure immediate knowledge & attitude change and long-term behavior change

CONS

- Often only used right after an intervention
- People typically don't respond to open-ended questions
- People don't pilot the survey instrument to ensure it's measuring what it's supposed to measure
- People ask questions without planned purpose for us
- Technology can be prohibitive

INTERVIEWS

PROS

- Can tailor questions for individual interviews
- Can ask probing follow-up questions during the interview
- Respondents often feel less burdened by an interview (phone or in person) when compared to an online survey

CONS

- Scheduling
- Need to have the same person conduct all interviews OR train people and verify interviews are being conducted the same way
- No quantitative components
- Analyzing data thematically takes a lot of time

OBSERVATIONS

PROS

- Ability to observe what has been learned as it is put into practice
- Opportunity to make fairly quick changes to interventions based on observations
- Typically have the opportunity to ask some probing questions during or after the observations
- No additional time or preparation required by the person(s) being observed

CONS

- Scheduling
- Requires significant training and practice before can conduct valid and reliable observations
- Need to have the same person conduct all observations OR train people and verify observations are being conducted the same way
- Observers need to have deep content knowledge about what they are observing

FIDELITY OF IMPLEMENTATION

PROS

- Tailored to your specific implementation plan
- Ability to observe what has been learned as its put into practice
- FOI protocol can be used as a teaching and an observation tool - can be used immediately as a teaching tool

CONS

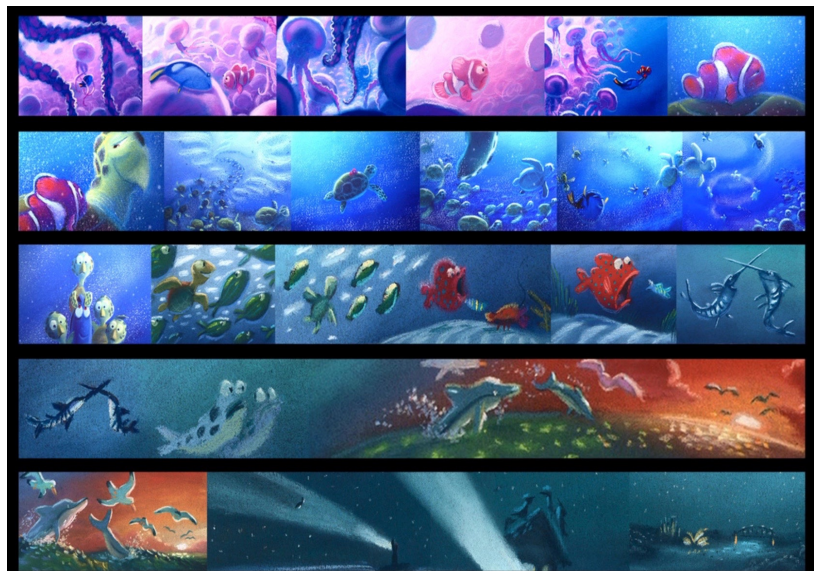
- Time intensive to develop an aligned and meaningful FOI protocol
- Requires significant training and practice before can be used for observations
- Need to have the same person conduct all observations OR train people and verify observations are being conducted the same way

PRACTICAL EVALUATION TOOLS

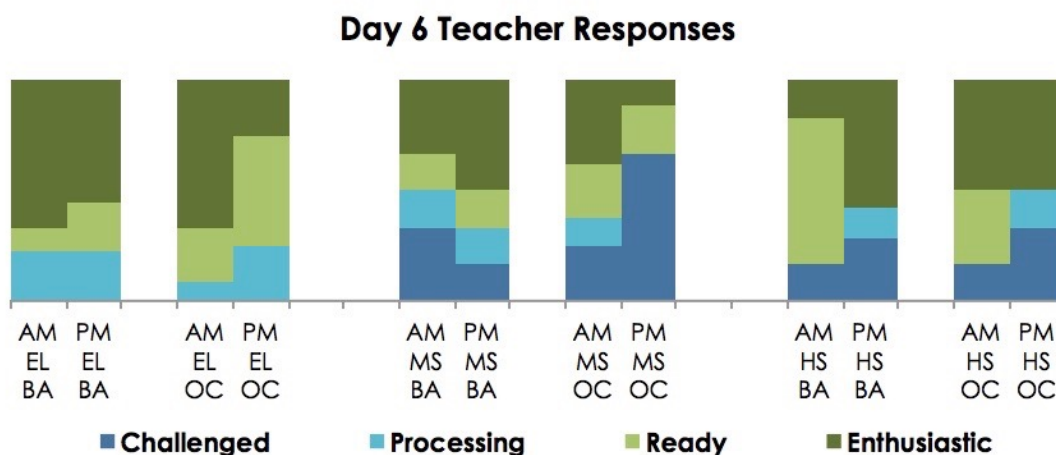
Color Scripting
Evaluation Camp
Evaluation Calendar
Root Cause Analysis
Paired Comparisons

COLOR SCRIPTING

You never know
when evaluation
inspiration may
strike!



MATH PD EXAMPLE



THE CLIENT LOVED IT!

- Visually appealing
- Easy to understand
- Had to recode all of the participants' exit words
- Easy to understand
- Meaningful conversations about how the trainers wanted participants to feel & what needed to change
- Helped identify strengths by trainer, then that trainer could share successful techniques with others

HOW DO I DO IT?

Download a full presentation on color scripting, as well as step by step directions, under the presentations tab at www.ieval.net

CREATING A CAMP-LIKE ATMOSPHERE FOR TALKING ABOUT EVALUATION



WHAT WE DO AT CAMP iEVAL



TYPICAL CAMP AGENDA

1. Introductions
2. Review local student/staff/program data available
3. Share overview findings across programs
4. Teach how to interpret data & work together to add context
5. Share site successes & barriers identified by data
6. Present national best practices based on needs identified through data
7. Networking & Reflection

TIPS FOR PREPARING FOR CAMP

- Know & respect your audience
- Pick a casual location
- Be prepared
- Give participants something personal & meaningful
- Use participant feedback
- Keep the energy high!

CREATE AN EVALUATION CALENDAR

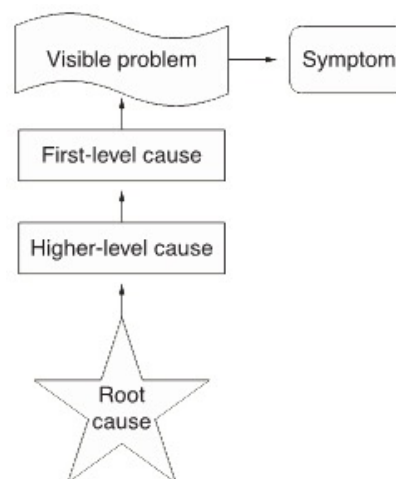
1. Bite-sized chunks of information, which are easier to digest
2. Keeps evaluation and data at the forefront of decision-making - at least on a monthly basis
3. Integrates multiple data sources
4. Connects data & recommendations to professional development & action

EVALUATION CALENDAR

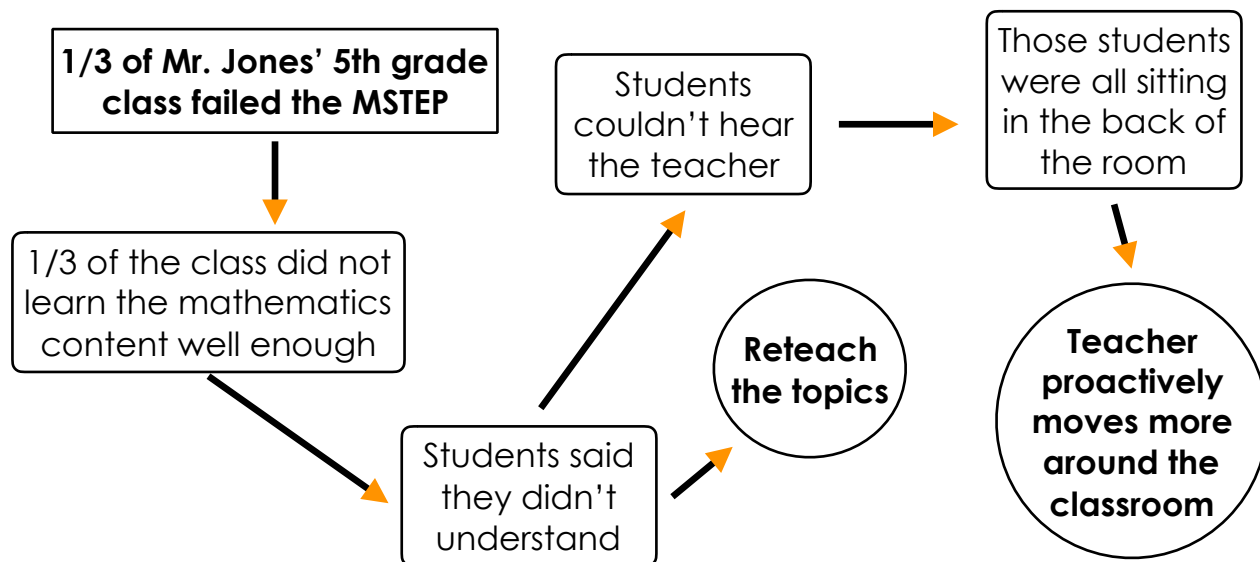
OCTOBER				
Overall Focus & Action Steps	iEval Report	MSU ARF	YPQA	Other
MEAP Support What are the strengths and weaknesses of our participants in prior years on the MEAP? What can our program do to support MEAP achievement, specifically in reading and mathematics?	Pages with MEAP performance and growth data List page #s:	Not applicable	Identify YPQA trainings to attend during the year Look at Action Plans from last year and continue to work on them (or develop new one if plan was achieved) Conduct any necessary training to be able to implement YPQA observations	Talk to teachers in the buildings to get their recommendations on which GLCEs to reinforce during the afterschool program
Should we plan conference calls every other month with Team iEval to share ideas, ask questions, etc. or do you feel the state monthly calls fulfill that need? Remember – we can only help if you ask!				

ROOT CAUSE ANALYSIS

1. Treat the problem, not the symptom
2. Important to spend time finding the causes
3. Asking **WHY** five times usually gets you to the root cause



ROOT CAUSE EXAMPLE



21st COLC iEval Report: Using Data
Site Name: _____

A	Total number of participants ()	A A A A A A A A A A A A A A A
B	Percentage of regular participants ()	B B B B B B B B B B B B B B B
C	Percentage of regular participants who have risk conditions ()	C C C C C C C C C C C C C C C
D	Percentage of participants attending 40 days or more ()	D D D D D D D D D D D D D D D
E	Gender distribution of participants ()	E E E E E E E E E E E E E E E
F	First/second lunch distribution of participants	F F F F F F F F F F F F F F F
G	Impact on attendance ()	G G G G G G G G G G G G G G G
H	Impact on behavior ()	H H H H H H H H H H H H H H H
I	Impact on math via assessment ()	I I I I I I I I I I I I I I I
J	Impact on reading via assessment ()	J J J J J J J J J J J J J J J
K	Impact on language arts via grades ()	K K K K K K K K K K K K K K K
L	Impact on math via grades ()	L L L L L L L L L L L L L L L

Site Totals: Count how many times you circled each letter and enter in the space after each letter below. The letters circled the most times are your site's priorities.

A	B	C	D	E	F
G	H	I	J	K	L

Project Totals: Add together the letter totals from each site and enter in the space after each letter below. The letters circled the most times are the program's overall priorities.

A	B	C	D	E	F
G	H	I	J	K	L

Adapted from Fairbanks Excellence Institute's Guide to Fair Use, 1998

SNAP-Ed Funded Paired Comparisons: 2015-16
Program Name: _____

A	Percent of teachers/admins who went to participants' homes	A A A A A A A A A A A A A A A
B	Percent of teachers who felt students benefited from the program	B B B B B B B B B B B B B B B
C	Number of teacher surveys completed	C C C C C C C C C C C C C C C
D	Percent of students eating more fruit & percent maintaining at eating fruit	D D D D D D D D D D D D D D D
E	Percent of students eating more vegetables & percent maintaining at eating vegetables	E E E E E E E E E E E E E E E
F	Percent of students choosing healthier snacks/drinks	F F F F F F F F F F F F F F F
G	Percent of students doing more physical activity	G G G G G G G G G G G G G G G
H	Number of student surveys (that's fine and/or Physical Activity) returned	H H H H H H H H H H H H H H H
I	Percent of parents eating more fruit	I I I I I I I I I I I I I I I
J	Percent of parents eating more vegetables	J J J J J J J J J J J J J J J
K	Percent of parents choosing healthier snacks/drinks	K K K K K K K K K K K K K K K
L	Percent of parents doing more physical activity	L L L L L L L L L L L L L L L
M	Number of matched pre/post tests for fruit & vegetable surveys for parents	M M M M M M M M M M M M M M M
N	Number of parent surveys returned	N N N N N N N N N N N N N N N

Site Totals: Count how many times you circled each letter and enter in the space after each letter below. The letters circled the most times are your site's priorities.

A	B	C	D	E	F	G
H	I	J	K	L	M	N

Project Totals: Add together the letter totals from each site and enter in the space after each letter below. The letters circled the most times are the program's overall priorities.

A	B	C	D	E	F	G
H	I	J	K	L	M	N

Adapted from Fairbanks Excellence Institute's Guide to Fair Use, 1998

PAIRED COMPARISONS

COMPARING INDIVIDUALLY

SNAP-Ed Funded Paired Comparisons: 2015-16

Program Name: _____

A	Percent of teachers/admin who want to participate next year ()	A	A	A	A	A	A	A	A	A	A	A	A	A
B	Percent of teachers who felt students benefited from the program ()	B	B	B	B	B	B	B	B	B	B	B	B	B
C	Number of teacher surveys completed online ()	C	C	C	C	C	C	C	C	C	C	C	C	C
D	Percent of students eating more fruit & percent maintaining at eating fruit ()	D	D	D	D	D	D	D	D	D	D	D	D	D
E	Percent of students eating more vegetables & percent maintaining at eating vegetables ()	E	E	E	E	E	E	E	E	E	E	E	E	E
F	Percent of students choosing healthier foods/snacks ()	F	F	F	F	F	F	F	F	F	F	F	F	F
G	Percent of students doing more	G	G	G	G	G	G	G	G	G	G	G	G	G

COMPARING INDIVIDUALLY

M	fruit & veggie screeners for parents ()	N
N	Number of parent surveys returned ()	

Site Totals: Count how many times you circled each letter and enter in the space after each letter below. The letters circled the most times are your site's priorities.

A	B	C	D	E	F	G
H	I	J	K	L	M	N

Project Totals: Add together the letter totals from each site and enter in the space after each letter below. The letters circled the most times are the program's overall priorities.

A	B	C	D	E	F	G
H	I	J	K	L	M	N

BENEFITS OF PAIRED COMPARISONS

1. Puts data at the center of any prioritization of future work
2. Takes the “gut feelings” or “the way we’ve always done it” out of the equation
3. Results in individual and group priorities

****This is a difficult process! It results in headaches and frustration the first time, but participants love the results!****

Paired Comparisons Example

A	Percentage of <i>elementary</i> teachers who participated in the professional development ()	A	A	A	A	A	A
B	Percentage of <i>middle school</i> teachers who participated in the professional development ()	B	C	D	E	F	G
C	Percentage of <i>elementary</i> teachers who felt the PD improved their mathematics knowledge ()	C	C	C	C	C	C
D	Percentage of <i>middle school</i> teachers who felt the PD improved their language arts knowledge ()	D	D	D	D	D	D
E	Content-related instructional area with the least improvement between pre-/post-observations in mathematics ()	E	F	G	H		
F	Content-related instructional area with the least improvement between pre-/post-observations in language arts ()	F	F	G	H		
G	Grade level(s) that demonstrated the most difference in mathematics growth between participating and comparison classrooms ()					G	H
H	Grade level(s) that demonstrated the most difference in language arts growth between participating and comparison classrooms ()						

Your Totals: Count how many times you circled each letter and enter in the space after each letter below. The letters circled the most times are your priorities (typically pick no more than three).

A	B	C	D
E	F	G	H

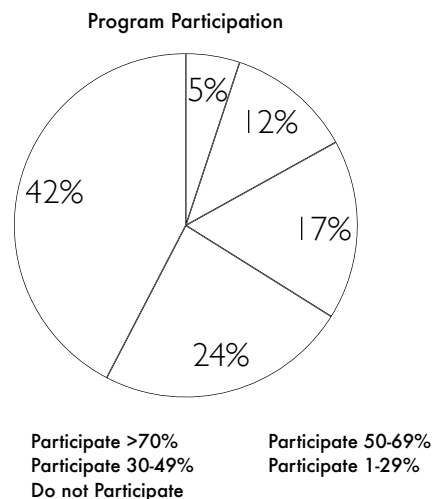
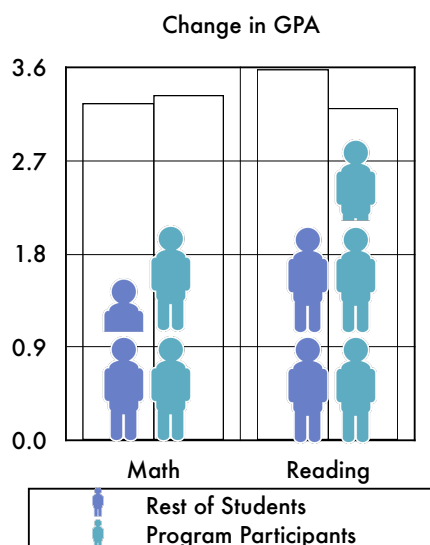
Overall Totals: Add together the letter totals from each individual's comparisons in your school/district and enter in the space after each letter below. The letters circled the most times are the overall priorities (typically pick no more than three).

A	B	C	D
E	F	G	H

Activity adapted from Facilitator Guidelines: Instructor's Guide by Vron Rens, 1998.

HANDS-ON WITH PAIRED COMPARISONS

WHAT ARE THE DATA SAYING?



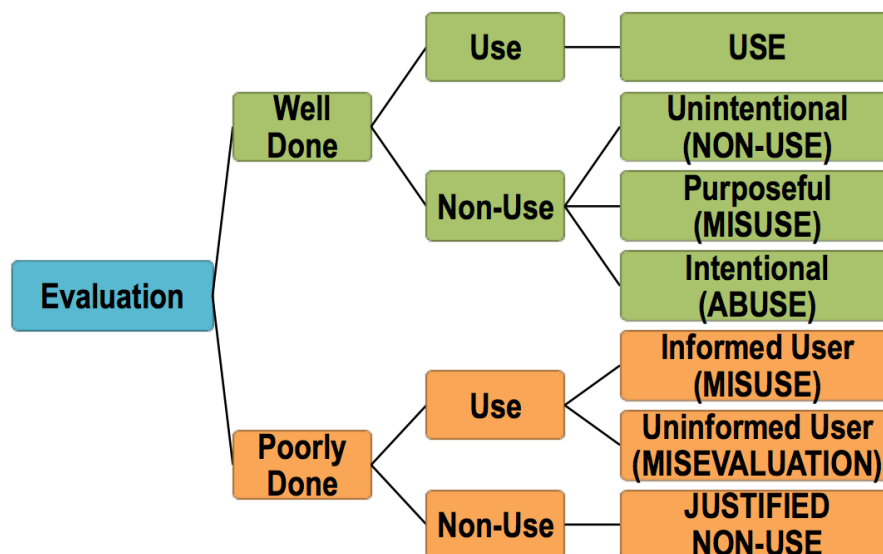
WHAT IS EVALUATION USE?

Use typically refers to the direct and immediate application of evaluation findings for program improvement, decision making, and influencing thinking

1. TALK ABOUT USE AT THE BEGINNING

- **WHO** will be involved in using the evaluation findings?
- **WHAT** is actually being evaluated? What questions will be answered as part of the evaluation?
- **HOW** will the evaluation findings be used? For program improvement, decisions, judgments, policy-making, etc.?
- **WHY** is the evaluation being done to begin with? To meet funder requirements, client needs, pure research?
- **HAVE COMMON UNDERSTANDINGS FROM THE START**

WHEN TO USE EVALUATION RESULTS



2. BE THOUGHTFUL ABOUT EVALUATION THROUGHOUT

Common understandings of the evaluation mindset


+

ongoing focus on continuous improvement

=

purposeful, meaningful improvements or decisions

MEETING SUMMARIES

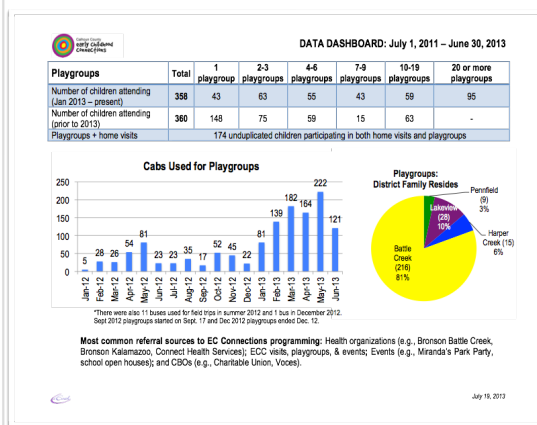
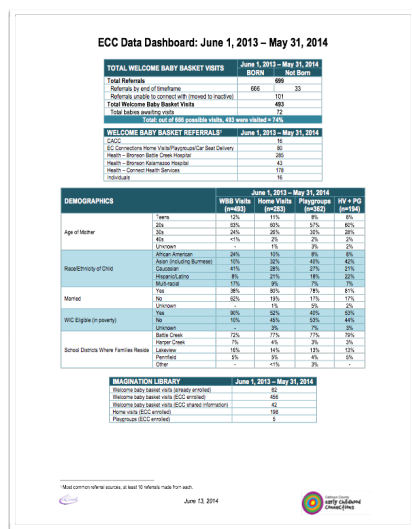


Name of Meeting
Date _____
Attendees
Summary of attendees
Primary Purposes of Meeting
Explain primary purposes of meeting
Process Observations
<ul style="list-style-type: none">• Bullet general notes, comments, etc.
Points of Tension
<ul style="list-style-type: none">• Highlight any issues, individuals, etc. that created tension in the meeting with an explanation
Implicit Decisions
<ul style="list-style-type: none">• List any "to do's" or decisions that were made in the meeting, particularly implicit decisions (i.e., those that were discussed but not officially voted on or assigned)
Emerging Themes and Patterns
<ul style="list-style-type: none">• List any overall thoughts, themes based on observations
Overall iEval Recommendations
<ul style="list-style-type: none">• Any recommendations iEval has for this group/process moving forward

3. SHARE RESULTS OFTEN & IN DIFFERENT WAYS

- Data and analyses should be shared when they are available - do not wait until the end of the project
- Mid-project changes from evaluation results may skew scientifically-based evaluation results, but they help create a better program overall
- The more visual, the better

INTERNAL DASHBOARDS



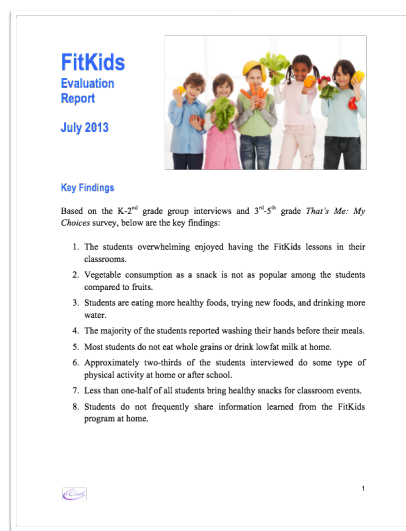
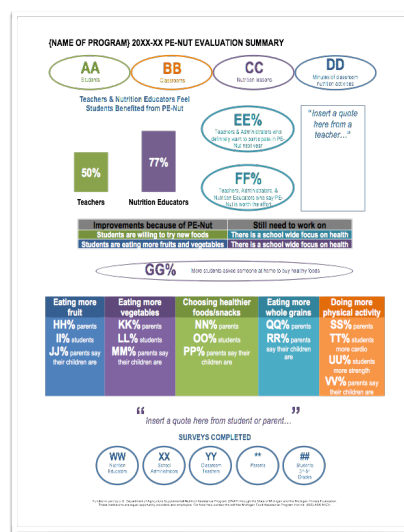


TABLE OF CONTENTS

USE OF THIS REPORT

The context on community transformation is important in understanding, interpreting, and using the analyses of the collaborative action process. The report is organized in the following sections, from broad to specific:

1. **Overview of community transformation** (page 3) – explanation of the phases of community transformation
2. **Kalamazoo's framework for community transformation** (page 5) – review of local perspective on community transformation, with this report focusing on action networks
3. **The collaborative action process** (page 6) – explanation of StriveTogether's collaborative action process, which will be the basis for analyzing the work of the action networks
4. **The evolution of The Learning Network action networks** (page 7) – origins, timeline, structure, successes, challenges, and cross-over primarily from the perspective of the network conveners
5. **The evolution of The W.K. Kellogg Foundation funded programs** (page 10) – origins, timeline, structure, successes, challenges, and cross-over primarily from the perspective of the program leaders
6. **The evolution of The Learning Network supportive initiatives** (page 13) – origins, timeline, structure, successes, challenges, and cross-over primarily from the perspective of the program leaders
7. **Analyses of the collaborative action process** (page 15)
 - a. **Process observations** (page 16) – iEval's explanation of where each of the nine groups are in the collaborative action process, what steps were skipped and why, what the impact of skipping steps has been, and where the group is in relation to the ecocycle graphic on page 3
 - b. **Lessons learned** (page 20) – iEval's analyses of the successes and challenges related to the collaborative process and how lessons learned may inform The Learning Network
8. **Overall findings** (page 22) – serves as a summary of the main findings from analyzing the data in this report



Some recommendations for how this report can be used by various groups is shown in the table below:

Group	Potential Report Use
Kalamazoo Community Foundation Board	<ul style="list-style-type: none"> • Inform other projects they're invested in (i.e., apply learning from successes and roadblocks) • Demonstrate the progress and stages of the various components of The Learning Network
Backbone Team & Leadership Table	<ul style="list-style-type: none"> • Help energize groups around goal-setting, decision-making, facilitation, data use, etc. • Understand challenges that have been encountered by current networks and groups to plan for the development of future networks at different points on the continuum • Understand the status of groups in their work cycles and what kind of support may be needed
Action Networks, Groups, and Supporting Initiatives	<ul style="list-style-type: none"> • Dig deeper into the group's progression through the ecocycle and what phase of the cycle to expect next • Reflect on the past and current phases of the work to help determine next steps • Develop understanding of the overall work so cross-network/group/initiative work that could be explored

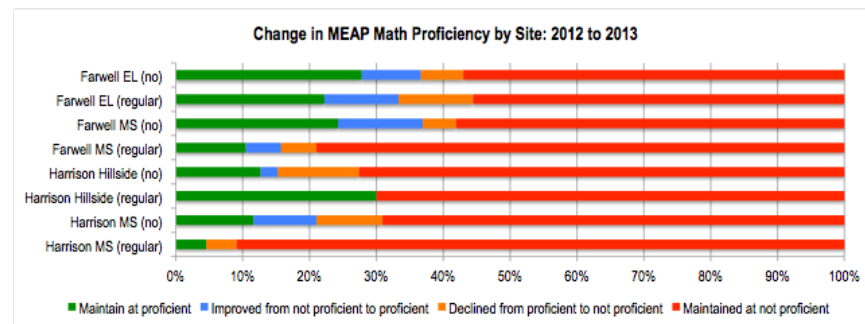


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BITE-SIZED REPORTS

ACADEMIC ACHIEVEMENT by Site: MEAP (Mathematics)

Because the MEAP test is given at the beginning of the year, the previous year's participation in the 21st CCLC program is used to measure change. Therefore, regular participants in 2012-13 are compared with non-participants on their fall 2013 MEAP scores. Only those students with two years of MEAP data to measure change (i.e., 3rd and 9th grade students are not included), and only grade levels with more than ten students per subgroup are included, with Farwell Elementary being an exception with nine 21st CCLC participants. Overall, red (on the right) and green (left) are used to indicate targeting (you want more red students in your program, knowing you're targeting those most in need of help) and blue and orange are used to indicate growth (you want more blue indicating participation in 21st CCLC may have a positive impact on students). At Farwell MS and Harrison MS, the percentage of regular participants that maintained at not proficient (red) in Math is higher than non-participants, indicating good targeting. Farwell EL has a slightly higher percentage of students in blue, indicating improvement. There were no statistically significant differences ($p < .05$) between regular participants and non-participants change in Math at any schools.

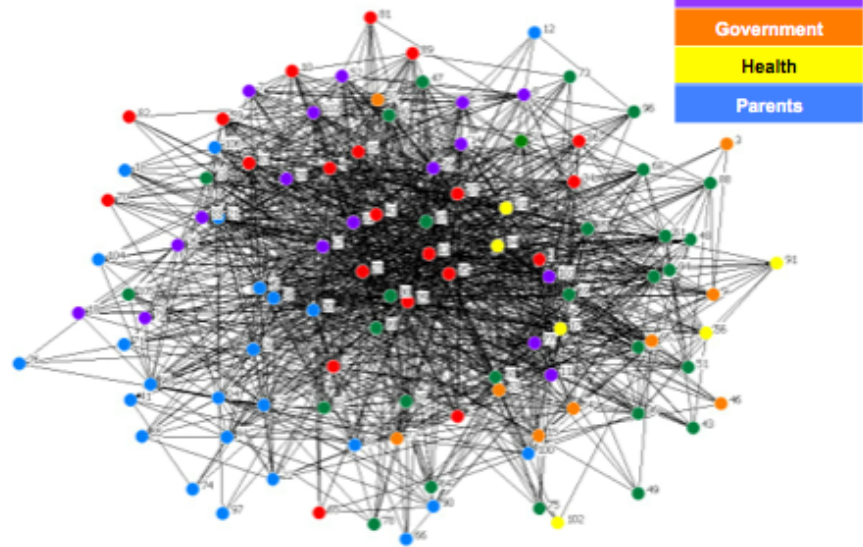


July 2014

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**USE CLEAR
VISUALS**

Overall Sociogram



iEval

4. MAKE EVALUATION FUN

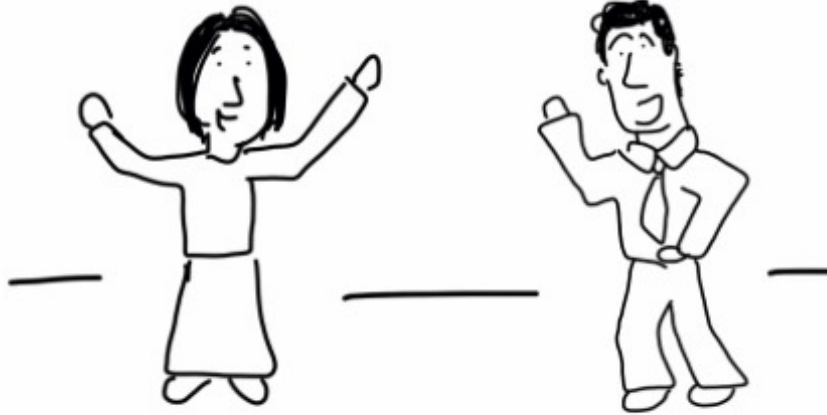


Founding members of the excited evaluators TIG



woohoo eval!

ohhhhh yeahhhh!



freshspectrum.com



HAVE FUN SHARING RESULTS

I inserted folded statements of findings from the evaluation, rather than fortunes. Each cookie held a different statement so that the audience was encouraged to open (and eat) them all.



<http://stephanieevergreen.com/findings-cookies/>

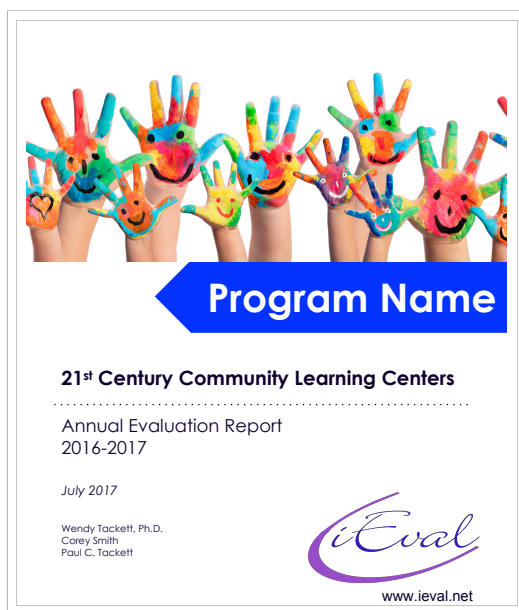
EVALUATION REPORT EXAMPLES

Tailor your report for your audience

- Use of graphics
- Use of statistical jargon
- Color themes (e.g., take colors from a logo)

Ensure reports are useful

- Appealing (e.g., white space, fonts, colors)
- Concise
- Clearly explained graphs
- Organized around key questions or program components



21ST CENTURY COMMUNITY LEARNING CENTERS PROGRAM

Executive Summary

This evaluation report analyzes various available data sources to understand how the 21st CCLC program impacts student academic achievement and behavior. Some highlighted findings from this report include:

1,920 different students have participated in the 21st CCLC program over the past 8 program years.

82% of the participants this year attended programs 30 days or more (up from 74% last year), with 46% of the students during the school year attending 90 days (up from 41% last year).

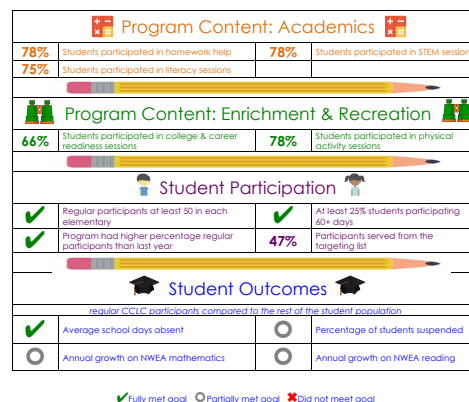
Participation in 21st CCLC programming may have had a **positive impact on school day attendance**, with regular 21st CCLC participants missing significantly fewer days of school than the rest of the students.

Participation in 21st CCLC programming had a **positive impact on school day behavior** as measured by suspensions for students participating 90 days or more.

Participation in 21st CCLC programming had **variable impact on academic achievement** in reading and mathematics, including a **significant positive impact on reading** at School C.

After school programs have the potential to have the most impact by teaching students life skills not typically taught in school.

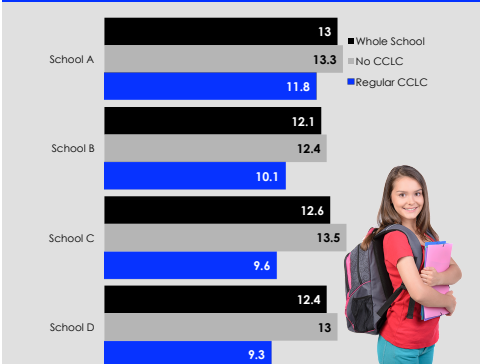
21st CCLC At A Glance



Student Behavior *School Day Attendance*

This chart includes the average school year attendance for all students in the building, students who didn't participate in CCLC, and students who were regular participants in CCLC. At all sites, the regular CCLC participants had fewer absences during the school day than the rest of the students. The differences between CCLC and non-CCLC students were statistically significant at Schools C & D, with the CCLC participants exhibiting fewer absences.

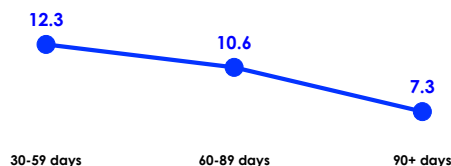
Average Days Absent 2016-17



Digging Deeper into School Day Attendance

When examining average absences by the level of participation in 21st CCLC in elementary schools there were statistically significant differences between students who attend 90+ days over the course of the year and those who attend less than 90 days. The graph below presents this data showing the average absences over the school year by level of participation in 21st CCLC. These data suggests that 21st CCLC participation have a positive impact on school day attendance. Granted, students need to show up at school to participate in the program and therefore there is a natural correlation between the two, but this analysis points to possible programmatic thresholds at which school day attendance may be positively influenced.

Average Days Absent by Program Attendance at Elementary: 2016-17





Next Steps

Over the past several years, trends can be seen in the evaluation data related to the 21st CCLC programming. These trends, along with recommendations for consideration, are listed below. It is important to look back at changes and trends over time to understand and better apply data in your decision-making moving forward.

Regular participation: Regular participation in afterschool programming is an important dosage measure, demonstrating the percentage of students receiving the full benefits offered by the program. Your program has done an excellent job with retention, increasing each year. Make sure that as you transition to focus even more on program quality that retention doesn't get forgotten.

Increased attendance: As you can see on pages 14 & 16, there is a greater impact on behavior (and, presumably, achievement) on those students attending 90 days or more. What can you do to encourage more students to reach that threshold of attendance?

Impact: When examining the impact of program participation on academic gains, the results consistently over the years have not been what the program staff desire. Are the "right people on the bus?" Are those people in the "right seats on the bus?" Do you have the staff you need doing the work they should be doing in order to have a positive impact on student academic achievement? How can the program be redesigned or re-energized to try to impact achievement differently? Or, should impacting student academic achievement even be a priority in the program? Are other life skills (e.g., socialization, service, leadership) the focus of the program? Should other measures be the focal point of future evaluation reports?

Implementation of these suggestions should improve program efficiency as well as the ability to accurately assess program impact, ultimately leading to increased benefits for student participants.

(client logo here)

Mathematics & Science Partnership Evaluation Report July 2017

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Paul C. Tackett

MATHEMATICS & SCIENCE PARTNERSHIP GRANT EXAMPLE

Teacher Perspectives

The areas with the most change for mathematics teachers, based on the MTEBI, provide some conflicting responses: teachers feel less that student achievement is directly related to teacher effectiveness but they feel more that student inadequacy can be overcome by good teaching.



Teacher Mathematics Knowledge

Numbers & Operations

The first portion of the LMT focused on number concepts and operations (NO), while the second section focused on patterns, functions, and algebra (PFA). The table below shows the overall scores on the pre-/post-tests, representing only the 12 teachers who took both.

Number & Operations Score Distributions	Pre-Test	Post-Test
Number of teachers	12	12
Pre-test mean	59%	60%
Pre-test range	25-93%	24%-76%
Percent scoring above 70%	8%	25%
Percent scoring 50-69%	75%	58%
Percent scoring below 50%	17%	17%
Percent improving 3% or more		33%
Percent maintaining +/- 2%		50%
Percent declining 3% or more		17%
Percent improving at all (1% or more)		42%

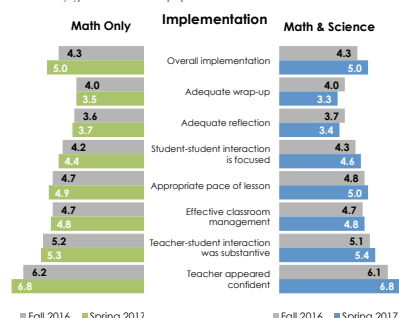
When taking the LMT, there are two equivalent forms of the test (form A and form B), and respondents were randomly assigned a form. They took the opposite form as the post-test. The following table indicates the number of teachers who got each item correct on the LMT pre-/post-tests for numbers & operations (including only the 12 who took both tests). The questions teachers declined the most on (>40%) are highlighted in red, and the actual items are shown in Appendix A. Items with the most improvement (>40%) are highlighted in yellow. Items that were identified as low performing at the pre-test are in bold blue. One of the lowest performing questions from the pre-test were included in the most improved category for the post-test, and another four questions in that category had 30% or more improvement.

Numbers & Operations Item	Percent Correct (Pre)	Percent Correct (Post)
25	20%	57%
26	100%	86%
27	20%	0%
28	0%	86%
29	86%	80%
30	86%	40%
31	57%	80%
32	57%	20%
33	29%	0%

1 With low numbers of tested teachers (n=12), even one teacher can swing the percentage substantially, which is why 40% is used.

Classroom Instruction

The following chart illustrates the mean score for the SAMPI observations based on a scale from 1 to 7 (with 7 being the highest). Across observations, teacher confidence was the highest scoring indicator in the implementation of the lesson - teachers appeared confident in facilitating the lesson and addressing student questions. In both observations, adequate reflection and wrap-up were the lowest scoring indicators and dropped slightly in the spring observation. Many lessons did not include any type of reflection or wrap-up for the students.



Observation Snapshot
Mastering Math Skills: The goal of one lesson was to prepare students for an upcoming math test. The teacher briefly worked through an example with the whole group, then passed out worksheets to each student. It was quickly apparent many of the students did not understand how to complete the problems on the worksheet. The teacher was moving from student to student, trying to answer questions and provide basic information (like the difference between clockwise and counter clockwise). Some students quickly lost interest in the worksheet and engaged in side conversations. Instead of bringing the class back together and working through more examples as a whole group, or using another technique to engage struggling students, the teacher continued to have students work independently for the remainder of the lesson.

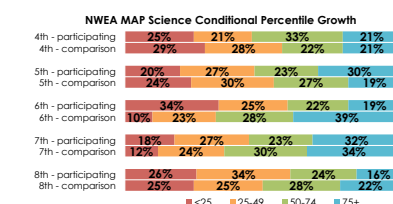
Student Achievement

Science

While the comparison group of students were matched to the students in schools with teachers participating in the science professional development based on school size/reduced lunch percentages, the following table also shows the mean NWEA MAP Science RIT for fall 2016 and spring 2017 and indicates if the difference between groups was statistically significant.

Grade Level	Fall 2016 Science RIT			Spring 2017 Science RIT		
	Participating	Comp	Significance	Participating	Comp	Significance
4th	193	186	Yes, p<.0001	201	194	Yes, p<.0001
5th	198	191	Yes, p<.0001	206	199	Yes, p<.0001
6th	200	201	No	203	209	Yes, p<.0001
7th	203	204	No	209	211	No
8th	209	211	No	212	214	No

The conditional percentile growth (CPG) chart indicates the percentage of students in each quartile of CPG.² Using the conditional growth index (CGI) to calculate if the difference in growth was statistically significant between groups, it was determined that 5th grade students in participating classrooms higher growth rates than the comparison group and that 6th and 7th grade students in participating classrooms grew at a lesser rate than the comparison group.



² The conditional growth percentile, or CPG, is a student's percentile rank for growth. If a student's CGI is 50, this means that the student's growth was greater than 50 percent of similar students in the NWEA norm group. Students are similar with regard to starting achievement level, grade, subject area, and number of instructional weeks between tests. A student who demonstrated growth equivalent to that of similar students (i.e., equal to the student growth norm) will have a CPG of 50. Growth greater than the norm would result in a percentile rank higher than the 50th percentile, and growth less than the norm would result in a percentile rank lower than the 50th percentile. CPGs range from the 1st to 99th percentile. Find out more at <https://www.nwea.org/learn/learning/conditional-percentile-growth>.



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