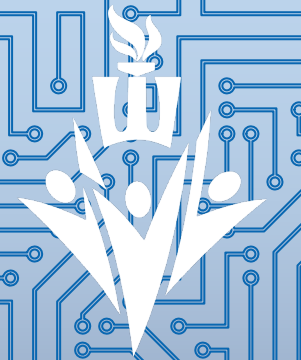


#itecia



CREATE THE FUTURE

# Evaluating your Technology Program



# HELLO!

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# Why Program Evaluation

- ① Demonstrate program effectiveness to administration and Board of Education
- ① Improve the implementation and effectiveness of programs
- ① Better manage limited resources
- ① Document program accomplishments
- ① Justify current program funding or support the need for increased levels of funding
- ① Demonstrate positive and negative effects of program participation
- ① Document program development and activities to help ensure successful replication

# IT Program Evaluation: Following the Correct Steps

Determine project goals & objectives to be measured ~ Key Performance Indicators

Determine criteria (or norms) to measure success

Determine measurement period(s)

Determine who will collect the data and how it will be collected

Conduct an analysis of the data & present your results

# Early Technology Indicators

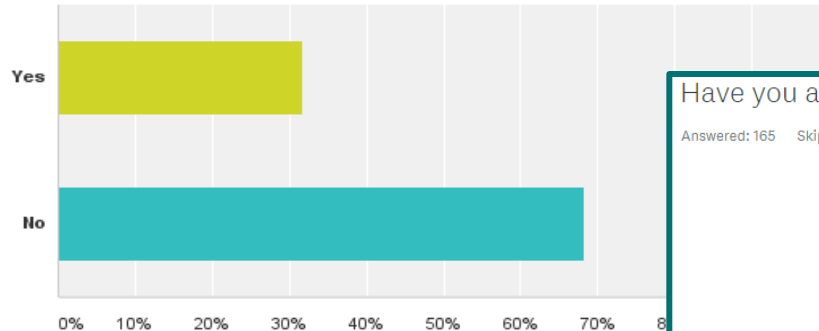
- Student to computer ratios
- Age of computing equipment
- IT staff to student or faculty ratios
- Use of computer labs
- Funding
- Website traffic



# How many Illinois districts have assessed their 1:1 Programs

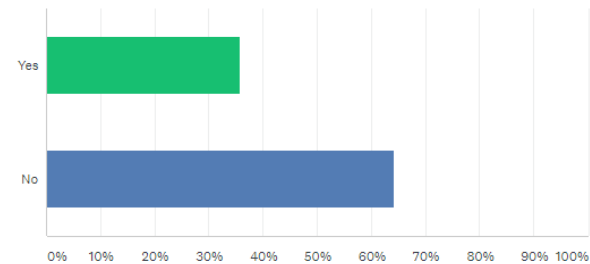
**Q21 Have you assessed the impact of the 1:1 program?**

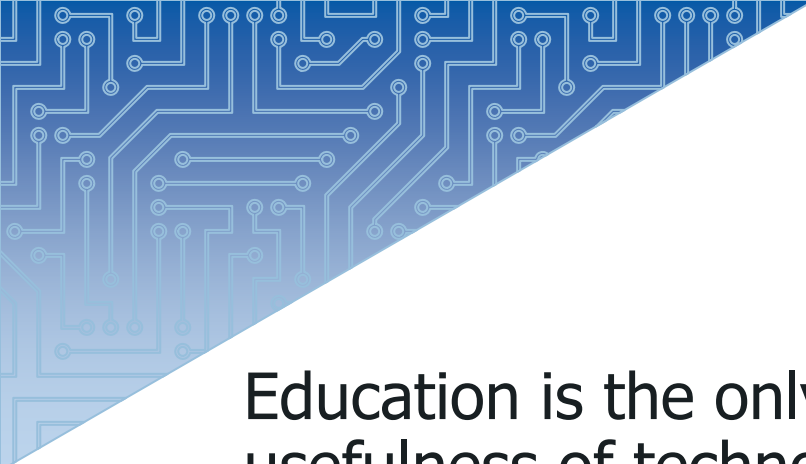
Answered: 236 Skipped: 127



Have you assessed the impact of the 1:1 program?

Answered: 165 Skipped: 27





Education is the only business still debating the usefulness of technology. Schools remain unchanged for the most part, despite numerous reforms and increased investments in computers and networks.

- ***U.S. Secretary of Education Rod Paige, quoted in National Educational Technology Plan, 2004***



# 1

## Determine what you are going to evaluate

Lions, tigers and KPIs, oh my!



# CoSN's Elements

- ⦿ Devices
- ⦿ Networks
- ⦿ Systems
- ⦿ IT Spending
- ⦿ Support
- ⦿ Online Learning



From CoSN, KPI, 2014.

## - IT Key Performance Indicators -

37 Information Technology Key Performance Indicators for CoSN Members

### DEVICES - 6 Measures

- Advanced Presentation Devices per Teacher
- Average Age of Computers
- Computers per Employee
- Tablets per Student (Student Use)
- Devices per Student
- Devices per Teacher (Dedicated Teacher Use)

### NETWORK - 5 Measures

- Bandwidth per Student
- Bandwidth per User
- Days Usage Exceeds 75% of Capacity
- Overflow Capacity
- WAN Downtime

### SYSTEMS - 10 Measures

- Business Systems Cost Per Employee
- Instructional Systems Cost Per Student
- Systems Downtime - E-Mail
- Systems Downtime - ERP
- Systems Downtime - Finance System
- Systems Downtime - HR System
- Systems Downtime - LCMS/IMS
- Systems Downtime - Online Assessment System
- Systems Downtime - Payroll System
- Systems Downtime - SIS

### IT SPENDING - 6 Measures

- Capital Investments
- Hardware, Systems And Services
- Personnel Costs
- IT Spending Per Student
- IT Spending Percent Of District Budget
- IT Spending Spending Per District FTE

### SUPPORT - 6 Measures

- Break/Fix Staffing Cost per Ticket
- First Contact Resolution Rate
- District Employees per Help Desk FTE
- Help Desk Call Abandonment Rate
- Help Desk Staffing Cost per Ticket
- Mean Time to Resolve Tickets

### ONLINE LEARNING - 4 Measures

- Blended Courses Completed Per Course Offering
- Blended Courses Offered
- Online Courses Completed Per Course Offering
- Online Courses Offered

Enrollment	Annual License Fee
1,000	1,000

From CoSN, KPI, 2014.

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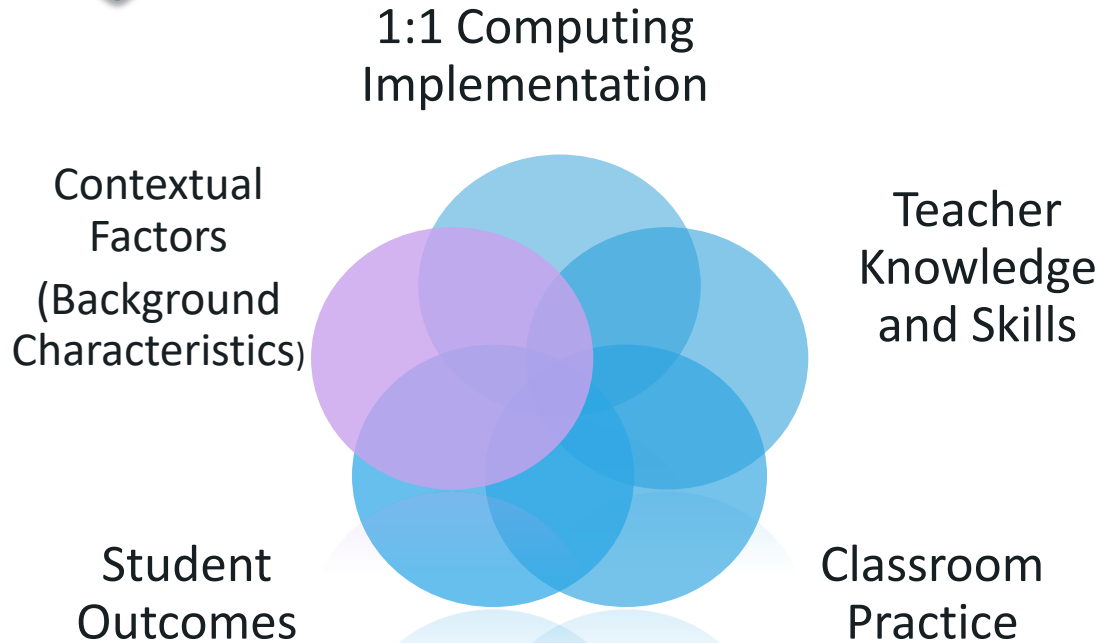
- Blended Courses Completed Per Course Offering
- Blended Courses Offered
- Online Courses Completed Per Course Offering
- Online Courses Offered

Enrollment	Annual License Fee
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# Some Flaws with CoSN KPIs

From CoSN, KPI, 2014.

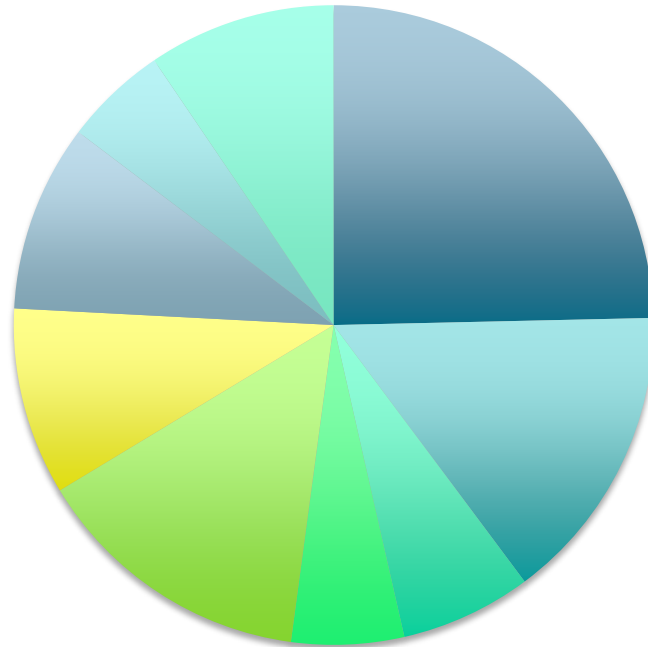
# Factors for Evaluation from Intel



# What does ProjectRED say?

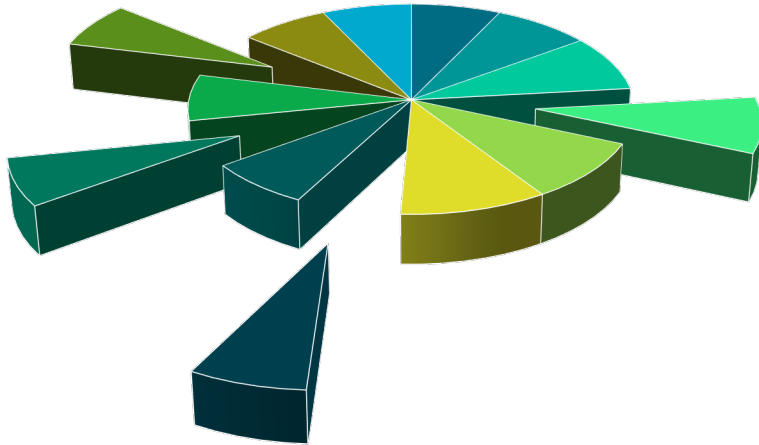
First and foremost, the 1:1 program needs to be focused on student learning, personalization and the most effective methods for the delivery of instruction. A 1:1 program's vision and goals will vary from district to district but maximizing the learning potential of each individual student must remain the core of established goals.

# Potential Aspects of Instructional Technology Programming



- Student Achievement
- Student Growth
- Student Engagement
- Student Behavior
- Cost Effectiveness
- Instructure
- Effectiveness
- Professional
- Development

# Facets of the Information Technology Program

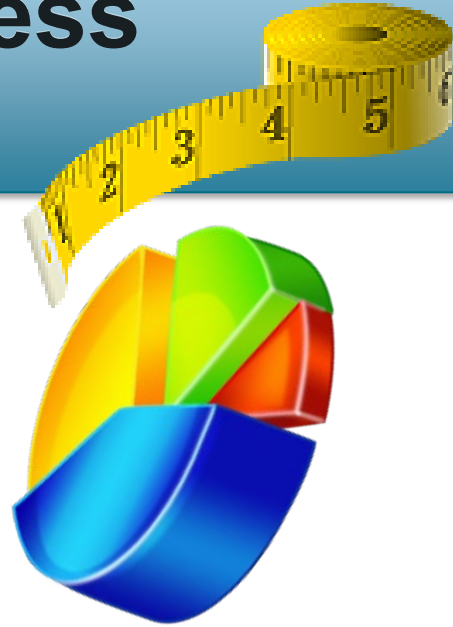


Facets
Infrastructure
Hardware
Software / LMS
Administrative Software
Service and Support
Staff Readiness
Technology Staff Development
Integration into the General Instructional Program
Integration into Special Instructional Programs / Assistive Technology
Instructional Technology Courses and Student Skill Expectations
Technology Facilities
Internet Presence
Organization of Technology Services

Baule, S. M. (2001). *Technology planning for effective teaching and learning*. (Professional Growth Series). Worthington, OH: Linworth Publishing.

# How to Measure Success

- ① Compare to Benchmarks
  - Criterion Referenced
  - Rubrics can work well here
- ① Measure Growth
  - Norm Referenced
- ① Qualitative Measures





# SMARTIE Goals

- ⦿ Specific
- ⦿ Measurable
- ⦿ Attainable
- ⦿ Realistic
- ⦿ Timely
- ⦿ **Inclusive**
- ⦿ **Equitable**

<b>What</b> will you measure?	<b>How</b> (What is the measurement tool)?	<b>When</b> (Annually, Quarterly, etc.)	Success will equal what?	<b>Who</b> (Which stakeholders are involved in the goal setting and reporting?)
Student Engagement and Motivation				
Cost savings				
Increased Student Achievement				

# A Student Engagement Example

Goal to increase student engagement through the implementation of 1:1 technology

⦿ How will you measure student engagement?

- Survey data?
- Attendance?
- Observation?

# Better Student Engagement

“The use of todays meet [sic] resulted in the participation of 100% of the students. So many students are too shy to share aloud, but a discussion board gives them an opportunity to express themselves without feeling as self-conscious.”

“The discussion board then served as a quick-reference. I could quickly and easily see and address any misconceptions and provide reinforcement of how accurate the students were.”

Dana Rosenquist, 7th grade language arts teacher

## Example: How to measure?

# Goals & Results

*How Michigan's 1:1 computing program is meeting its goals.*

**GOAL 1:** Enhance student learning and achievement in core academic subjects with an emphasis on developing the knowledge and skills requisite to the establishment of a 21st century workforce.

**FINDING:** Student scores on the MEAP increased after their participation in the program. Results identify 1:1 as the reason for this increase.

# Example: How to measure?

Action Items	Person(s) Responsible	Source Timeline	of Funds/ Resources	Formative Evaluation	Summative Evaluation
1. Establish online learning communities anytime, anywhere.	All Staff	Ongoing	Time to share ideas	Learning communities are created, listservs	Educators will collaborate with others electronically Number of hits Number of job alike courses created
2. Provide technology training that is job embedded.	Director of Inst. Tech., Tech Coordinators, ITSs	Ongoing	Tech Allotment	ITSs conduct training at campuses on specified topics	Number of hours provided at each campus Evidence of technology being used in the classroom
3. Provide more time for staff development through the district calendar.	Asst to the Supt Staff Dev. Coord. IISD Board	TBA	Two days of student instruction	District calendar is changed to provide two more days for teacher training, waiver submitted to state	Teachers have more time to learn and collaborate with colleagues

# Improving Student Motivation & Engagement

## Success Indicators

- ⦿ A decrease in office referrals, detentions and suspensions
- ⦿ A decrease in the number of days absent
- ⦿ An increase in homework completion

## Results

- ⦿ Reduced from 138 to 28
- ⦿ 45.8% decrease in days absent
- ⦿ Completion increased from 59% to 76.2%

# Increase Student Achievement

## Success Indicators

- ① Increase MAP and ISAT scores
- ① Increase the use of formative assessment via Schoology
- ① Increase RTI interventions for struggling students

## Results

- ① 77% of students met benchmarks in reading; 68% in math ~ highest rate in district
- ① 100% of 7th grade staff reported an increase
- ① The delivery of accommodations and modifications through the use of the tablet has been more than we could have asked for.



# Reduce Ongoing Instructional Costs

## Success Indicators

- Reduction in the paper budget
- Decrease in staff absences
- Long term reduction in textbook costs as we move to digital resources

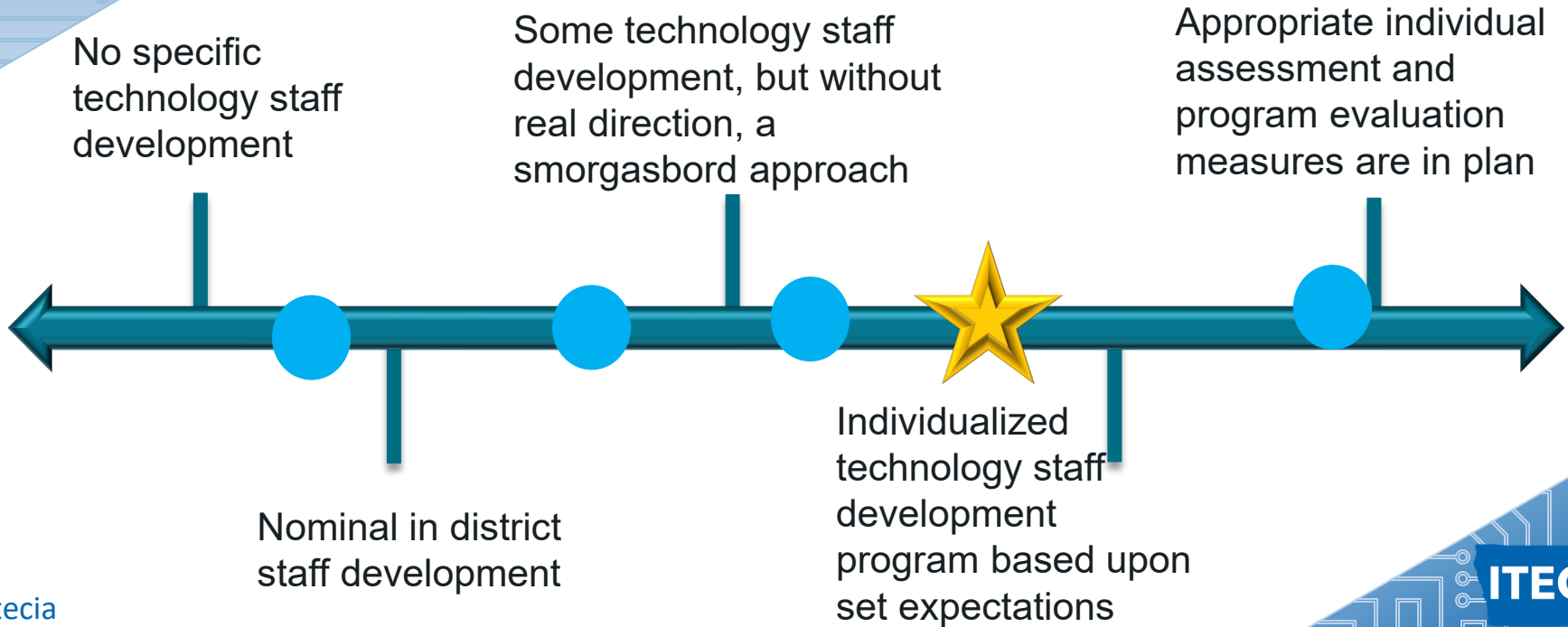
## Results

- Saved 30% of paper budget in first year
- Staff absences decreased by about 66%
- Undetermined at this point

## Technology Integration Rubric

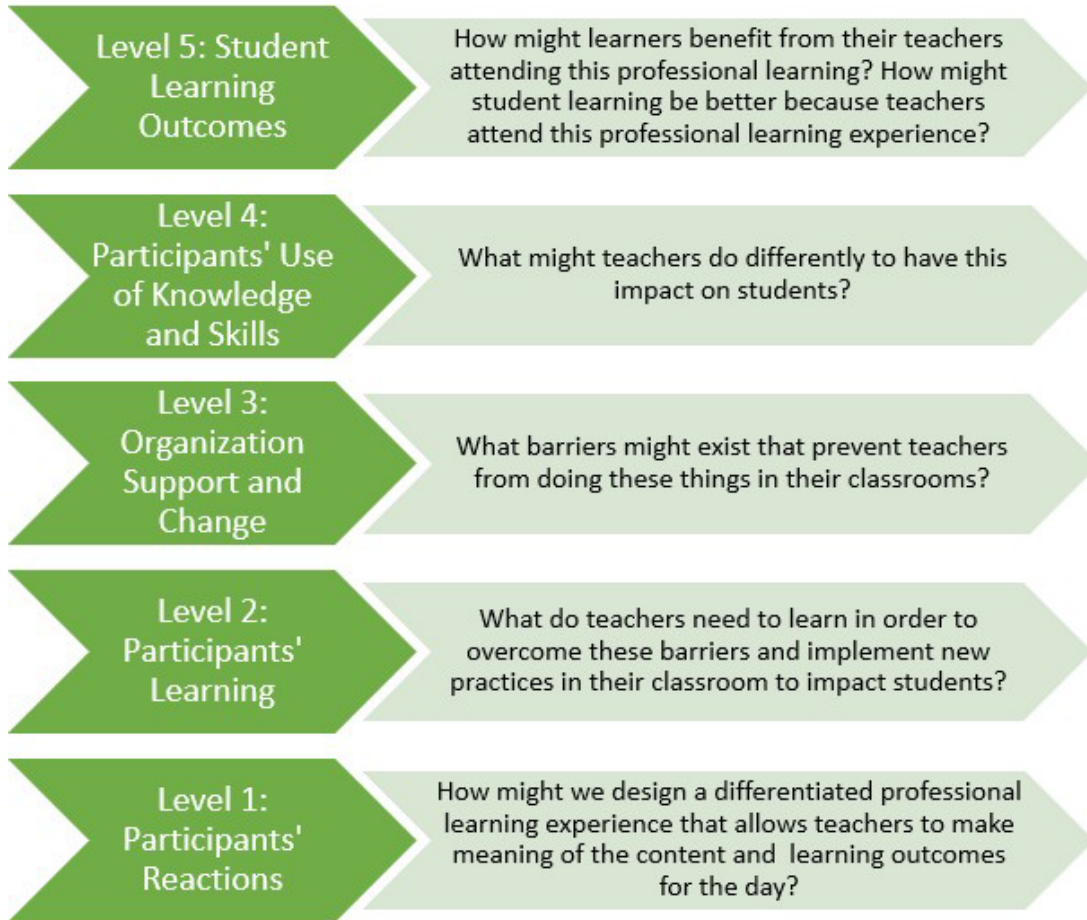
	<b>Initiating</b>	<b>Developing</b>	<b>Demonstrating</b>
<b>Attitudes</b>	<ul style="list-style-type: none"> <li>Teacher is not sure that technology will enhance their teaching or their students' learning, but tries to integrate nonetheless.</li> <li>Teacher is fearful of change.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher has some positive experiences with technology and begins to see its potential to enhance their teaching and to enhance student learning.</li> <li>Teacher occasionally shares practices with other teachers.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher has had many positive experiences with technology integration.</li> <li>Teacher is a champion of technology integration.</li> <li>Teacher frequently shares practices among teachers.</li> </ul>
<b>IT Fluency</b>	<ul style="list-style-type: none"> <li>Teacher uses technology primarily for presentation or demonstration purposes.</li> <li>Teacher begins to use technology for interactive student activities.</li> <li>Teacher uses online access to information from within school.</li> <li>Teacher uses technology for professional and personal use, such as Microsoft Office software or e-mail.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher sometimes uses technology for both presentation and interactive student activities (communication, production, collaboration).</li> <li>Teacher uses online access to information from within school and from home, or from other settings.</li> <li>Teacher uses technology for personal and professional use, such as MS Office, e-mail, and some Web 2.0 technologies.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher regularly uses technology for both presentation and interactive student activities (communication, production, collaboration).</li> <li>Teacher uses online access to information from within school and from home, or from other settings.</li> <li>Teacher uses technology for personal and professional use such as MS Office, e-mail, and is comfortable with different Web 2.0 technologies.</li> </ul>
<b>Planning and Instructional Design</b>	<ul style="list-style-type: none"> <li>Teacher is comfortable with the Common Instructional Framework and is starting to plan lessons that have a technology component.</li> <li>Teacher is somewhat comfortable with the Common Instructional Framework, but has started to plan lessons with technology components.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher is comfortable with the Common Instructional Framework and has planned some lessons that integrate technology.</li> <li>Teacher most often chooses technologies appropriate to their activity and need.</li> <li>Teacher begins to evaluate effectiveness of technology</li> </ul>	<ul style="list-style-type: none"> <li>Teacher integrates technology seamlessly within the Common Instructional Framework.</li> <li>Teacher regularly uses technologies to support higher-level learning objectives.</li> <li>Teacher chooses technologies appropriate to their activity and need.</li> <li>Teacher encourages students to</li> </ul>

# Where does your district fall on the continuum?





# Two PD Evaluation Models



## What is it?

Thomas Guskey's 5-Level Model for Evaluating Professional Development (1999)

# Evaluation Models for PD

## THE KIRKPATRICK MODEL

### Level 4: Results

The degree to which targeted outcomes occur as a result of the training and support and accountability package

### Level 3: Behavior

The degree to which participants apply what they learned during training when they are back on the job

### Level 2: Learning

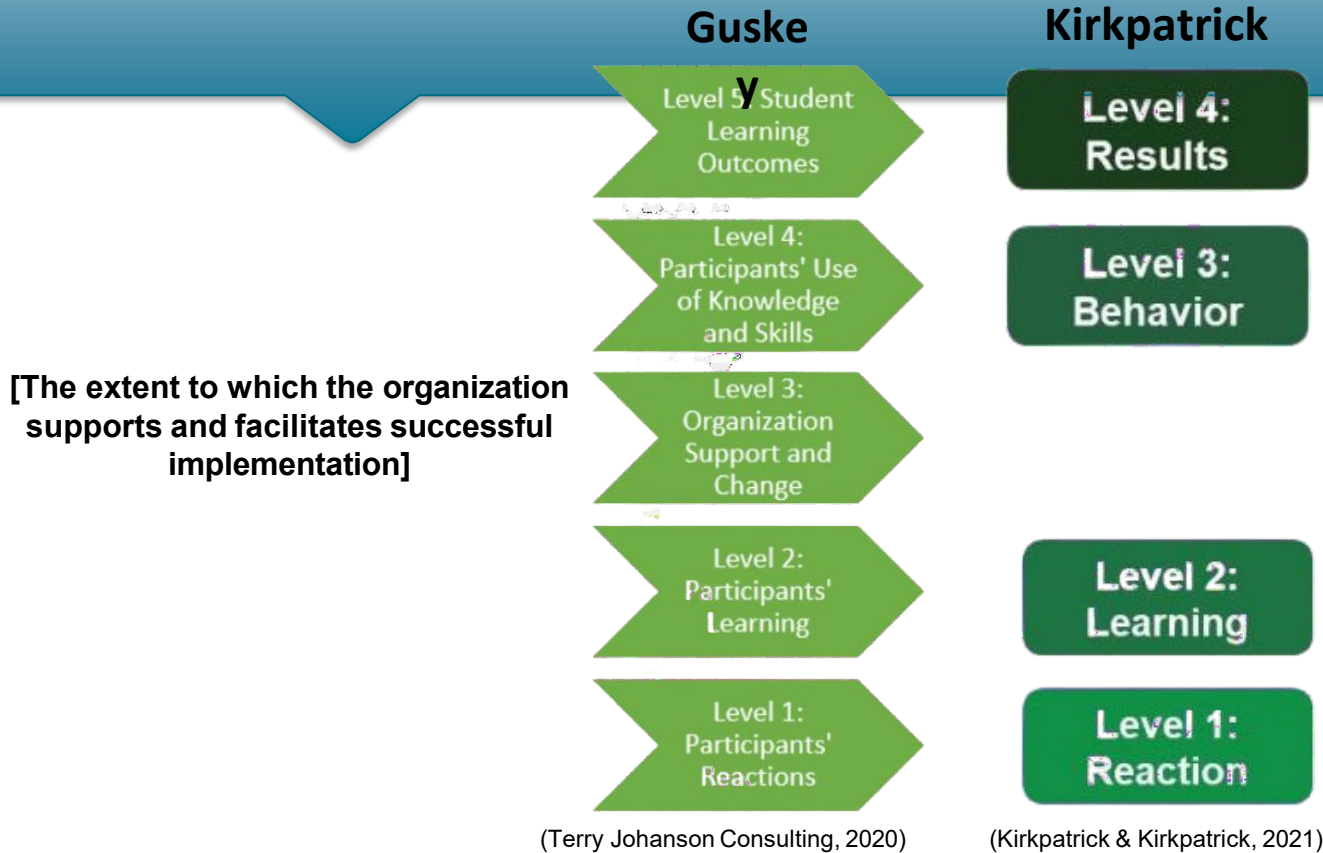
The degree to which participants acquire the intended knowledge, skills, attitude, confidence and commitment based on their participation in the training

### Level 1: Reaction

The degree to which participants find the training favorable, engaging and relevant to their jobs

(Kirkpatrick & Kirkpatrick, 2021)

# Comparing Evaluation Models



Slide modified from Swanson, A. & Whitmer, S. (2022). Professional Development Model

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**Questions**

# THANKS!

Any questions?

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- Baule\_S
- 507-285-7481 (office)

