What does Implementation Science
have to do with
Instructional Leadership?

David Forbush Ph.D.
Utah State University

I'm an
OUTCOMES
junkie!
UPDN

What does Implementation Science have to do with Instructional Leadership?

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Utah State University

Everything!!

Implementation Types

- **Paper Implementation – Paper Plan for EBP**
  - 80-90% people dependent IVs end here (Rogers, 2002)

- **Process Implementation – Train to EBP**
  - Workshops, conferences....

- **Performance Implementation – Demonstrate EBP**
  - Implemented with fidelity and to good effect

A Problem!

What
We
Know!

"Knowing-Doing Gap!"

What
We Do!

Closing the Gap

In 2011, The U.S. Department of Education reported that **7.8%** of prevention programs were found to be evidence-based (i.e., verified by HQ research).

Less than half **(44.3%)** of prevention programs met fidelity standards (i.e., implemented as intended).

In total, **3.5%** of prevention programs were both evidence-based and met minimal fidelity standards (Crosse, et al., 2011).
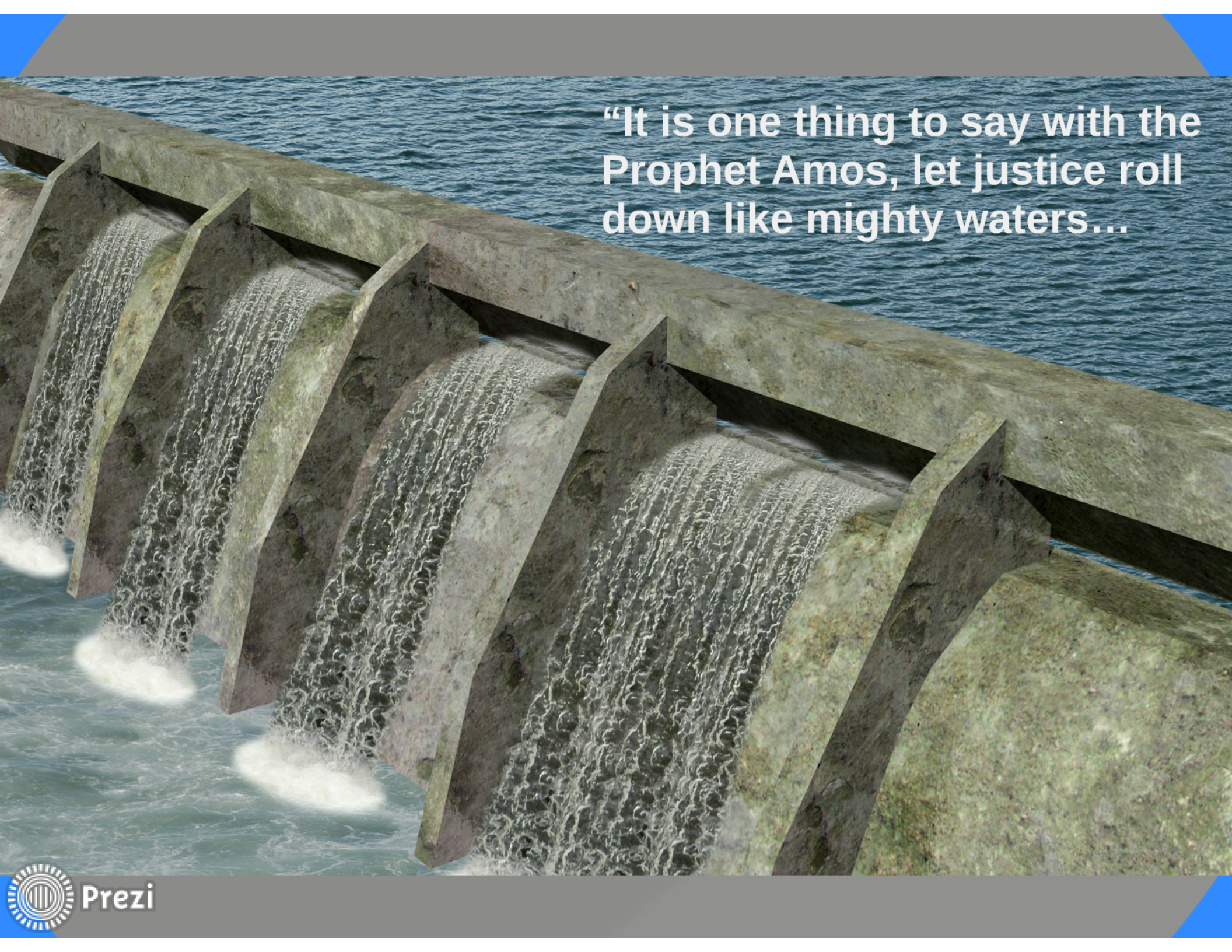
Closing the Gap

Strong interest in seeing a **"good return"** on the investment in identifying evidence-based practices, and moving **beyond "paper implementation,"** or policy changes, **to "performance implementation."**

Need for verifiable changes in practice that result in improved student performance and outcomes.

"It is one thing to say with the Prophet Amos, let justice roll down like mighty waters...

...and quite another to work out the irrigation system."

-William Sloane Coffin

Passion + Knowledge + Skills + Execution

Implementation Problems

"I have concluded that most educational reform takes place in our literature, and on the pages of *Education Week*, not in schools and classrooms…It seemed to me that all of this talk about waves and waves of reforms really refers to the trends in the reform literature, not changes that are really taking place in real schools. Of course, that is true of waves. They tend to be highly visible at the surface, but do not affect what's going on down in the lower depths."

- Cooley (1997) -

Prezi

These trainings are presented jointly by the Utah State Office of Education (USOE), the
Utah Professional Development Network (UPDN), and the Utah Multi-Tiered System of Supports (UMTSS).

There is a significant need to move from "allowing" the implementation of evidence-based
practices (EBP) to happen to "making" the implementation of evidence-based practices happen.

Effectively implementing EBPs is difficult. It has been said, "It is one thing to say with the
Prophet Amos, let justice roll down like mighty waters...and quite another to work
out the irrigation system." -William Sloane Coffin

These courses will provide participants with the knowledge and tools needed to design the "irrigation" or implementation system.

Implementation Science

Utah instructional leaders, including state, regional, district, and building level leaders who have completed
Implementation Science: Foundations, or by special invitation may participate.

Registration is now open on PD-RIO: http://pd.spedsis.com/public
Participants must register for all four sessions.

Implementation Science *Foundations*

February 25
March 4
March 11
March 18
3:30-5:00 pm

Implementation Science *Advanced*

April 15
April 22
April 29
May 6
3:30-5:00 pm

Implementation Science *Applications*

June 2
June 9
June 16
June 23
Time TBD

These courses will be offered in an online format. Participants will access course related material on a Canvas
course management website, and will participate in a weekly, online Adobe Connect classroom. Each course
consists of four 1.5 hour sessions, with some time required outside of class to prepare for, and maximize the
productivity of in class discussions. Participants should plan to participate in all three courses.

There will be ongoing support through a virtual community of practice (V-CoP).

Participants will receive 1 USOE credit for participation in the Implementation Science Advanced course.

Please register on PD-RIO
http://pd.spedsis.com/public

For more information, please contact
Leslie Buchanan at the UPDN
(leslie.buchanan@usu.edu).

Implementation Science Foundations
February 25 – March 18, 2015

Day:	Wednesdays
Time:	3:30 – 5:00 P.M.
Classroom:	Adobe Connect: https://connect.usu.edu/is
Course Website:	Current or former USU students go to https://usu.instructure.com All others go to https://elearn.usu.edu/canvas
Credits:	1 USOE Credit
Core Instructors:	Leslie Buchanan, leslie.buchanan@usu.edu David Forbush, david.forbush@usu.edu Mary Gudgel, mary.gudgel@usu.edu Devin Healey, Devin.Healey@schools.utah.gov

Learning Scientist: John Jeon, john.jeon@usu.edu

Problem Statement

"Remember, students do not benefit from interventions they do not remember." (SISEP 2014). In recent years, development and verification of evidence-based programs and practices benefitting the achievement of student learning has increased. Unfortunately, effective implementation of evidence-based programs and practices in educational settings is rare. Recent comments regarding the "knowing-doing gap" and the challenges of effective, sustained and impactful implementation include:

- "The distance in the knowing-doing gap is more chasm than gap…" (Cook & Odom - 2013)

- "Choosing an evidence-based practice is one thing, implementation of that practice is another thing altogether…" (Fixsen, Blasé, Horner & Sugai - 2009)

- "Implementation is where good ideas go to die!" (Keyworthy – 2013)

- "Implementation problems are wicked problems – they fight back to keep the status quo" (Fixsen, Blasé, Duda, Naomi & Van Dyke – 2009)

- "We are faced with the non-evidenced based implementation of an evidence-based practice" (Drake, Gorman & Torrey – 2005)

- "Education is rich in data and poor in instructional decisions and rich in in-service and poor in implementation" (Forbush – 2013)

Virtual Community of Practice (v-CoP)

The virtual community of practice promote the followings:

Curating content

Consistent formatting

On-going moderation

Continued community of practice using face-to-face and virtual meetings between members

Extending local community to a national community network

Creating a toolkit for teachers to use computer science principles

Gathering common data from the various CoP activities

On-going communication

Benefits of Sharing Expertise

There are many different types of expertise at many different levels around state in teaching students with disabilities. It takes a long time to build expertise for teaching kids in a classroom setting. Kids are different and they grow up in different environments and situations, developing their own cultures in learning. Expert teachers learn how to teach kids in their own context and culture. Generalizing their expertise to other contexts and cultures is challenging; however, sharing and practicing expertise with teachers from different contexts and cultures can help teachers understand and solve their own problems.
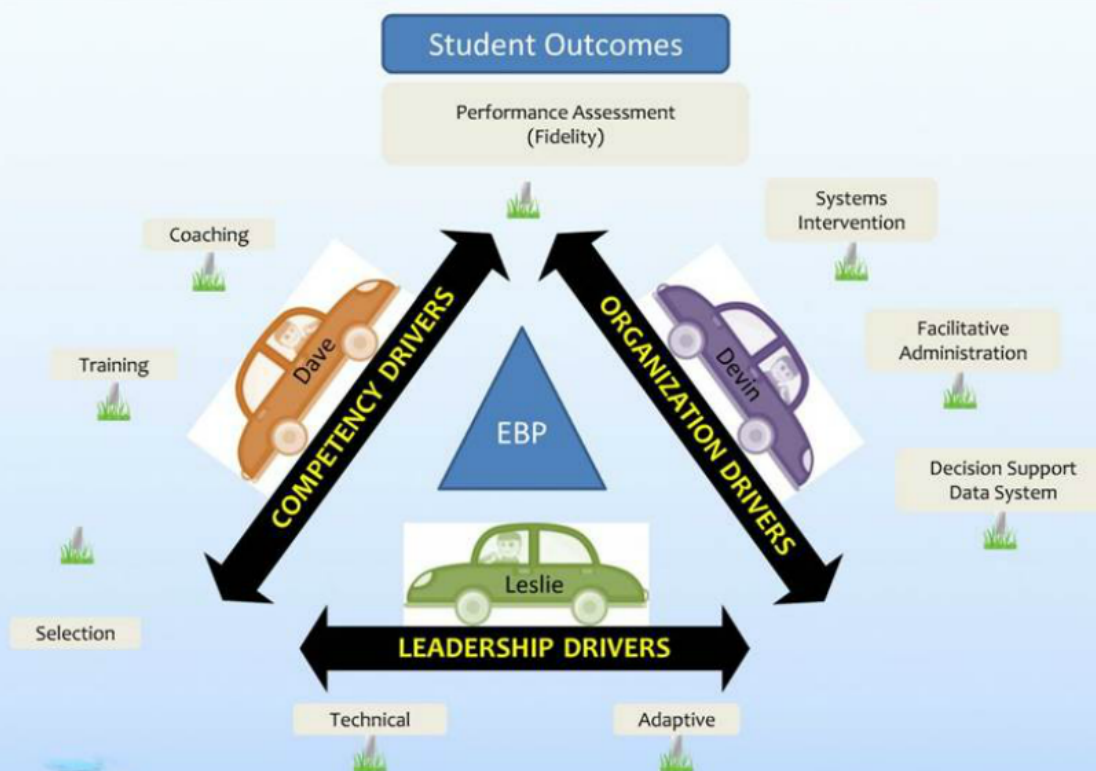
Networking with Other Experts

Special educators are sometimes isolated, and must practice their own teaching without much assistance from the same professional community, even though many communities exist in the same area. Finding experts in the same sorts of situations is not easy, and sharing and understanding the practices and problems in different situations is similarly difficult. Finding the right expert is hard, even in the same area of expertise.

Course Format

This course will be offered in an online format. Participants will access course related material on the Canvas course management website, and will access a live, online Adobe Connect classroom weekly. To maximize the learning of class participants, and including increase the likelihood of participants' application of implementation science in their respective settings, a "story-based instruction" model will be introduced in course two. Participants will be introduced to Ms. Jeon, the principal of Sequoia Middle School. Ms. Jeon, and select members of her staff are interested in implementing a school wide positive behavior support program. Learning of the Utah Professional Development Network, and the option to submit a "need assistance request," Ms. Jeon requests assistance with implementation of Sequoia's SWPBS. For this course, all participants will be working fictitiously as implementation specialists, and will apply implementation science principles in their consultative work with Ms. Jeon and her staff. As noted in course organization, the first course is focused on steeping participants in knowledge of implementation science principles and tools.

FoundationsSession3-Adobe.pptx | Full Screen

The Hexagon Tool
Exploring Context

The Hexagon Tool can be used as a planning tool to evaluate evidence-based programs and practices during the Exploration Stage of Implementation.

See the AI Modules Resource Library
http://implementation.fpg.unc.edu

Need in school, district, state
- Academic & socially significant Issues
- Parent & community perceptions of need
- Data indicating need

Capacity to Implement
- Staff meet minimum qualifications
- Sustainability
  - Staff Competencies
  - Organization
  - Leadership
  - Financial
- Buy-in process operationalized
  - Practitioners
  - Families

Fit with current Initiatives
- School, district , state priorities
- Organizational structures Community values

Readiness for Replication
- Qualified purveyor
- Expert or TA available
- Mature sites to observe
- Several replications
- Operational definitions of essential functions
- Implementation components operationalized:
  - Staff Competency
  - Org. Support
  - Leadership

Resources and supports for:
- Curricula & Classroom
- Technology supports (IT dept.)
- Staffing
- Training
- Data Systems
- Coaching & Supervision
- Administration & system

Evidence
- Outcomes – Is it worth it?
- Fidelity data
- Cost – effectiveness data
- Number of studies
- Population similarities
- Diverse cultural groups
- Efficacy or Effectiveness

NEED — FIT — RESOURCES — EVIDENCE — READINESS — CAPACITY

EBP: / **Student Need**

5 Point Rating Scale:
High = 5; Medium = 3; Low = 1.
Midpoints can be used and scored as a 2 or 4.

	High	Med	Low
Need			
Fit			
Resource Availability			
Evidence			
Readiness for Replication			
Capacity to Implement			
Total Score			

© Dean Fixsen and Karen Blase 2013
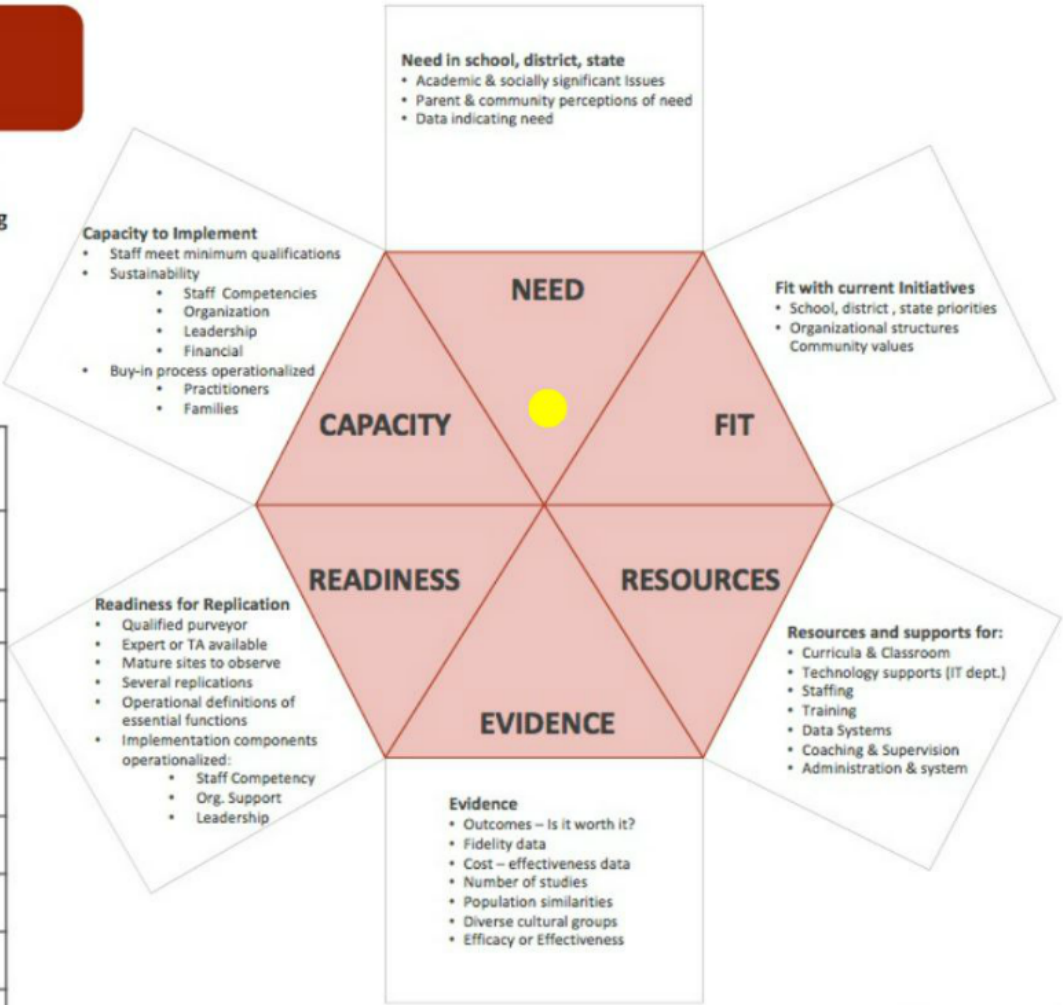
Adapted from work by Laurel J. Kiser, Michelle Zabel, Albert A. Zachik, and Joan Smith at the University of Maryland

Video

David Forbush

Attendees (21)

David Forbush, Leslie Buchanan, Mary Gudgel, Deanna Taylor, Emily Wilson, ...

Hosts (4)
- David Forbush
- John Jeon
- Leslie Buchanan
- Mary Gudgel

Presenters (0)

Participants (17)
- Chad Coon--Granite District
- Chantel Cowan
- Deanna Taylor
- edgar cortes
- Emily Wilson, UPDN
- Heidi
- Jessie Dalton
- John Copenhaver

Chat (Everyone)

Naomi Whitmore UTVA: I teach a very small group of self-contained students and so our targeted area is always reading. I then use the CORE phonics survey to determine which skill to focus on.

edgar cortes: SAGE Science test data for working in improving core content-students knowledge

John Copenhaver: "whenever to say "yes" to someone or something you say "no" to someone or something"

Mary Gudgel: Another good quote regarding prioritizing needs, "If no is not an option, then the power of yes diminishes."

John Copenhaver: nice Mary!

Emily Wilson, UPDN: I like those quotes John and Mary!

Prezi

Full Screen | Video

C1S2.1-1 Produce two "big questions" for Selection of competency driver

C1S2.1-1 Produce two "big questions" for Selection of competency driver

Type your answer here...

Answers (14)

What is the pedagogy that is needed?

What are the demands of the setting and Do we have the time and resources for shaping behaviors

What kind of skills are needed?

If they are lacking the skills how or can I train them or not?

What soft and hard skills are needed? Can they be taught?

which driver is the mos efficient to use first??

Hiring practices...with serious shortages in available candidates, sometime we are looking for a warm body. In reality, however, does the hiring process end up selecting "interviewing" as the critical behavior.

Do I have the right people on the team? I am providing ongoing training and coaching?

With the educators I'm working with, who posseses the needed skills? Who doesen't and what actions are needed to develop the skills?

Do we have the time and resources?

Who can best evaluate this program? How do we provide those skills to others?

What skills are needed at full implementation, What are the demands of the setting

What skills does our staff need to make implementation successful?

What are the soft/hard skills to be trained. Which ones are most shapable.

C1S2.1-2 Produce two "big questions" for Training of competency driver

C1S2.1-2 Produce two "big questions" for Training of competency driver

Type your answer here...

Answers (8)

What scaffolds do we use so people become fluent?

What skills are we looking for? How will we know if they got what they need?

Who has the skills and who doesn't? Can we screen for skills?

What are the skills we need to train? What are teh behaviors we are looking for?

When is the best time for providing this training? What format should we provide it in?

What are the vital behaviors needing to be trained? What does the training look like for our purposes?

What are vital behaviors to support EBP, do we know how to teach the skills

Training...what are the critical behaviors that we are selecting? How clear is the target?

C1S2.1-3 Produce two "big questions" for Coaching of competency driver

C1S2.1-3 Produce two "big questions" for Coaching of competency driver

Type your answer here...

Answers (5)

How do we follow up on the training? How often should we self- and re-evaluate the program?

Coaching: What type of coaching to use? How soon after PD should coaching be used?

What type of coaching is needed, How often is it neededc

How do we get to transfer and then ensure that we don't get drift?

What types? How often?

countdown.swf | Full Screen

ADOBE CONNECT™

You have:

15

setting time

ow. Thank you.

nd did not receive the e-mail with the

powerpoints. Here is my email: lcovert@alpinedistrict.org

Prezi

Scope and Sequence

- Knowledge/Skill Element 1: Implementation Frameworks: Usable Interventions, Implementation Drivers, Implementation Teams, Improvement Cycle

- Knowledge/Skill Element 2: Implementation Stages: Exploration, Installation, Initial Implementation, Full Implementation, Innovation

- Knowledge/Skill Element 3: Competency Drivers: Selection, Training, Coaching

Terminal Behavior(s): Participants will be able to establish selection criteria, and employ them in staff selection (soft and hard skills), develop targeted and sufficiently sustained training of core evidence-based practice components, and develop a robust coaching program to sustain staff members' efforts to implement EBPs with fidelity. Participants will recognize the need to increase the strength of training and coaching if existing staff do not meet staff selection criteria, and overall, recognize the fluid nature of competency drivers, and the need for strengthening of other competency drivers when one is weak.

Scope and Sequence

- Knowledge/Skill Element 4: Organization Drivers: Systems Intervention, Facilitative Admin., Decision Support Data System

- Knowledge/Skill Element 5: Leadership Drivers: Technical, Adaptive

- Knowledge/Skill Element 6: Implementation Teams

Terminal Behavior(s): Participants will be able to articulate the importance of larger system level implementation of EBPs, and contrast them against the limitations of narrow scope implementations (e.g., single classroom, single grade level…). Participants will be skilled in articulating steps to organize larger scale systemic implementations, and will recognize, articulate, and be skilled in employing administrative policies, practices, and dispositions nurturing a culture supportive of EBP implementation. Participants will be skilled in articulating, organizing and employing multi-level data systems, including monitoring progress through implementation stages, degrees of implementation fidelity, and fidelity of behaviors associated with EBPs, and their impacts on student achievement. Participants will recognize the fluid nature of organization drivers, and the need for strengthening of other organization drivers when another is weak.

Scope and Sequence

- Knowledge/Skill Element 7: Identifying Needs

- Knowledge/Skill Element 8: Prioritizing Needs

- Knowledge/Skill Element 9: Targeting Needs & Reach

Terminal Behavior(s): Participants will be skilled in systematically organizing processes to draw from multiple sources (e.g., data, and stake holders) student needs. Additionally, participants will be able describe the hypothesized influence of each need in relationship to student achievement. Finally, using data, guiding questions, and the NIRN hexagon tool, participants will select an appropriate number of student needs and corresponding well matched EBPs for implementation.

Scope and Sequence

- Knowledge/Skill Element 10: Identifying Potential EBPs

- Knowledge/Skill Element 11: Selecting Targeted EBPs

- Knowledge/Skill Element 12: Monitoring

- Knowledge/Skill Element 13: Scaling Up

Terminal Behavior(s): Participants will be skilled in taking a targeted student need, and identify potential EBPs and promising practices (i.e., those which have produced practice-based evidence [PBE]) which align to the need. Additionally, participants will select EBPs and PBEs viewed as powerful in addressing the student need if implemented with fidelity, and with appropriate dose, and period of time. Participants will effectively use the Hexagon Tool to inform their selections.

Driving Deep Implementation of Evidence-Based Practices

UPDN — Utah Professional Development Network

Problem – Knowledge to Implementation Gap

Over the past decade, researchers have identified practices and innovations shown to leverage student achievement. Unfortunately, there is often a gap between what has been identified through research as effective practice, what a school system adopts and supports, and what is implemented in classrooms. The use of implementation science's drivers helps schools close the gap between what they know and do.

Implementation drivers do just that—drive implementation—and they are the *engine of change*. They are the system's components that bridge the gap between knowledge and implementation.

Let's take a drive around the implementation drivers. Buckle up!

Deep implementation of evidence-based practices (EBPs) starts with **Competency** drivers: *getting the right people* on the team, and then actively working to develop, improve, and sustain team members with skills *training* and *coaching*.

- **Selection:** Effective staffing requires identifying the skills necessary for the work ahead. These skills are the criteria for selecting staff; they also direct training and coaching for new and existing staff.
- **Training:** Teachers, leaders, and staff need training on the theory, values, and actions of a practice or innovation, and should be provided with time to practice needed skills.
- **Coaching:** Skills can be introduced in training, but they must be practiced and mastered, with high levels of accuracy and fluency in the classroom and school. Coaching is key to supporting the transfer of skills from training to school and classroom settings.

Organization drivers are the systemic components that are essential in creating an educational environment ready for, and supportive of, change. Key organization components that **drive** successful and deep implementation include:

- **Systems Interventions,** which reduce or eliminate institutional barriers while enhancing elements in a system that support and sustain change.
- **Facilitative Administration** creates and maintains a hospitable environment, supporting intentional change and new ways to work.
- **Decision Supporting Data Systems** gather performance data and analyze processes and outcomes.
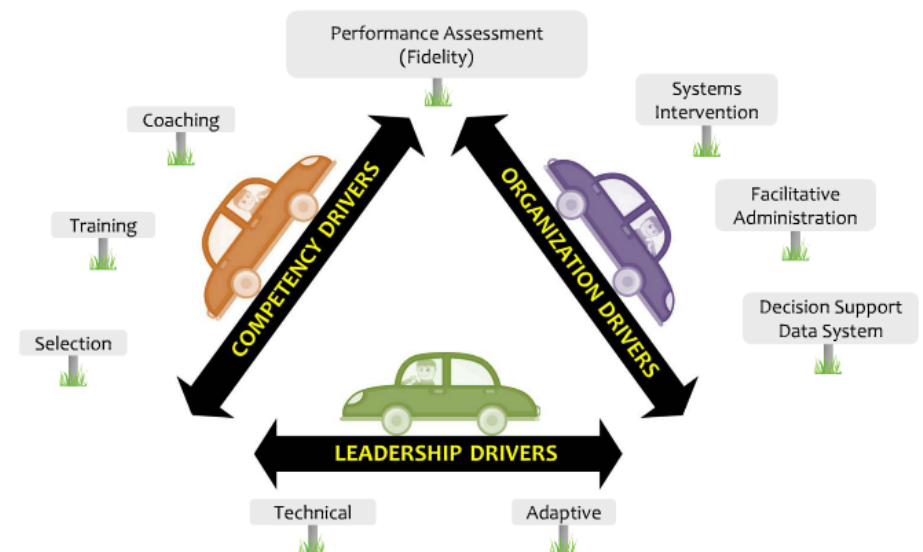
COMPETENCY DRIVERS

ORGANIZATION DRIVERS

Leadership drivers are the leadership approaches that transform systems and create change. Different challenges with implementing evidence-based practices call for different leadership approaches.

- **Adaptive Leadership** skills are needed to clarify the institutional vision, bring people together, and champion change.
- **Technical Leadership** skills are needed to manage continuing implementation supports. These skills represent the managerial side of leadership.

Sometimes, adaptive and technical skills are embodied in the same leader. In other cases, leadership responsibilities must be spread more widely to achieve the skills that drive implementation.

Performance Assessment monitors the strengths in a change system and the elements needing improvement. It identifies the extent to which the practice or innovation is being implemented with fidelity, and identifies needed corrections to improve fidelity.

LEADERSHIP DRIVERS

Performance Assessment (Fidelity) · Coaching · Training · Selection · Systems Intervention · Facilitative Administration · Decision Support Data System · Technical · Adaptive · COMPETENCY DRIVERS · ORGANIZATION DRIVERS · LEADERSHIP DRIVERS

Effectively using implementation drivers encourages educational systems to let go of "business as usual" and replace ineffective practices with effective ones, producing desired outcomes. Implementation drivers put your system in the *driver's seat* of *active implementation* of evidence-based practices, moving your system ambitiously toward improved outcomes for students, families, and communities.

Students cannot benefit from interventions they do not receive!

Please contact Audrey Ward (audrey.ward@usu.edu) at the UPDN with questions.

UPDN — Utah Professional Development Network

Closing Thought!

"Unlike other economic goods, information is enhanced with use, not depleted!"

Winter and Szulanski, 2001

Prezi

Closing Thought!

"Replace Diamond Hard Inertia with Thoughtful, Skillful, and Systematic Action!"