



In collaboration with DaSy, ECTA, NCSI, & NTACT

Maximize the Return on Your Data Investment: Planning and Documentation for Data Collection and Analysis







SSIP Interactive Institutes

Albuquerque, NM; April 29-30, 2015
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Jacksonville, FL; May 12-13, 2015
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Chicago, IL; May 27-28, 2015
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Session Objectives

- Describe the importance of planning for data collection and analysis, and of documenting findings and decisions along the way to facilitate reporting
- Identify "essential elements" in planning and documenting data collection and analysis
- Practice planning for data collection/analysis and documentation
- Discuss with state colleagues their different experiences and tools used in planning and documenting their data collection, analyses, and findings/decisions





Why are Planning & Documentation Important? They ...

- Define and limit the scope of data analysis for program improvement efforts, including the SSIP
- Create a roadmap for generating data tables and relating the state's findings to the development of program improvement plans, including the SSIP
- Track alternative hypotheses and additional analyses as they are generated
- Locate findings so that at a later time, when you are writing them up for stakeholders, OSEP, progress monitoring, etc., you can easily find them!





Data Analysis for SSIP Phases II & III

- Broad data analysis
 - Progress on your SiMR, including whether you are meeting your targets
 - Broad implementation of your improvement strategies
- In-depth data analysis
 - Evaluation of the implementation process
 - Evaluation of the implementation outcomes
 - Potentially the progress of subgroups on your SiMR
 - Important to limit the breadth of these analytic efforts to those that will be most relevant and likely to produce the information you need – new analyses may present themselves along the way





How? Questions to Think Through

- Did the state have concerns about data quality that limited the state's ability to interpret the data in Phase I? How is this going to be handled in Phase II planning and Phase III implementation?
- What factors did you find to be related to performance on the SiMR? Will these be stable or change across Phases II & III?
 - Child, family, provider, program?
- Where there changes over time in the factors identified to be related to state performance? Will these factors continue to be related?





How? Questions to Think Through

- What are your hypotheses from your theory of action about why/how the identified factors were related to the SiMR and why/how the improvement strategies will lead to improvements in the SiMR?
- What data are available in the state data system to answer questions about any of the hypothesized relationships?
- What information is available from other sources about the identified factors?
- What additional information will need to be collected?





How? Summarize Findings

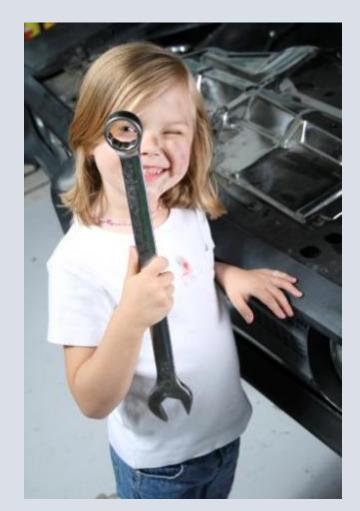
- The questions/problem statements addressed
- Hypotheses about questions/problem statements
- Analysis and results generated to address the question/problem statement
- Additional analyses that are needed
- Interpretation of findings while the results are fresh in your mind





How to Plan and Document: Summary of Essential Elements

- Purpose of the collection/analysis
- Description of the general topic of collection/analysis
- Details for the collection/analysis that specify:
 - What topic to be analyzed
 - Why hypotheses or rationale
 - How specific variables, types and order of analyses
- Documentation of decisions and findings







Discussion

- Questions and reactions?
- Has anyone begun planning their evaluation analyses?
 - What are you going to analyze what is your question?
 - What are your hypotheses about that?
 - Does your process involve a stakeholder group? If so, who is on it?
- Resources
 - Planning, Conducting, and Documenting Data Analysis for Program Improvement
 - The DaSy Framework Data Use Subcomponent Sections 1 and 2 can give you further ideas for planning the data collection, analysis, and documentation





Sample Question

- Did our professional development improvement strategy increase the percentage of providers/teachers who are implementing our evidence-based practice (EBP)?
 - Purpose: to understand the impact of our improvement strategy on the intermediate outcome in our Theory of Action related to increasing provider/teacher implementation of our selected EBP.
 - Description of the general topic of analysis: the phase I analysis indicated that more than 50% of our providers/teachers scored below the cut off of 4 out of 5 on the implementation checklist. An improvement strategy was designed to address this issue, and we need to determine if it in fact works.





Sample Question

- Did our professional development improvement strategy increase the percentage of providers/teachers who are implementing our evidencebased practice (EBP)?
 - Details for the analysis:
 - What: Info on the PD strategy 3-part series (instruction, video taped service delivery/teaching, 3 reflective supervision sessions)
 - Who: providers/teachers who participated in all 3 components
 - What/how: percentage who scored at least a 4 out of 5 on the EBP implementation checklist administered at the end of the 2015-2016 school year
 - How: using a chi-squared analysis, compare that percentage to the percentage who scored at least a 4 out of 5 at the end of the 2014-2015 school year and determine if it is significantly higher.





Sample Question

- Did our professional development improvement strategy increase the percentage of providers/teachers who are implementing our evidencebased practice (EBP)?
 - Documentation of findings and decisions:
 - What do you do if the number of teachers who participated in all 3 components is low what is too low? Would you need to change your measurement time points to allow for longer implementation of your professional development strategy? Would you examine participation in each of the 3 parts of the strategy to see how they relate to implementation?
 - What do you do if you find that there is no difference, or the percentage is actually lower for the 2015-2016 group compared to the 2014-2015 group?
 - If you find the results you hypothesized a significantly higher percentage, where and how do you document that so you can find and understand it 1-2 years from now for the Phase III report?





Small Group Activity

Use your theory of action to generate a question or questions, then begin planning data collection/analyses.

"Essential elements"

- 1. Purpose of the collection/analysis
- Description of the general topic of collection/analysis
- 3. Details for the collection/analysis that specify what (topic to be analyzed), why (hypotheses or rationale), and how (specific variables, types and order of analyses)
- Documentation of decisions and findings





State Examples

- Delaware Part C—Susan Campbell
- Delaware Part B (K-12 & 619)—Verna Thompson, Barbara Mazza, Michelle Rush







- Slow start but sizable interest from stakeholders
- Creation of SSIP Leadership Group—great note taker!
 - Data Subcommittee
 - Infrastructure Subcommittee
 - Stakeholder and State Initiatives





Data Subcommittee

- Agenda
- Documents to review
- Enthusiastic participation
 - Rich discussion
 - Possible root causes
 - Much contribution of other data

And more data And more data And more data

- So much data—everyone offered to help compare data
- Not consistently submitted (hi tech/lo tech)





(Hard) Lesson Learned:

Enthusiasm without organization leads to chaos.

Must devise better strategy when other two subcommittees meet.







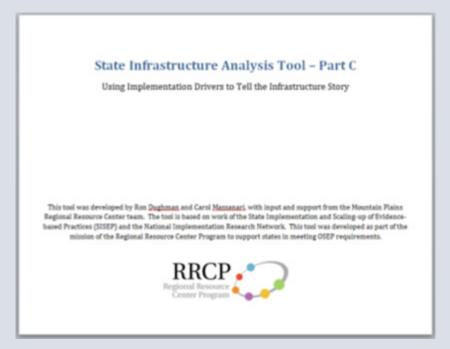
Infrastructure Subcommittee

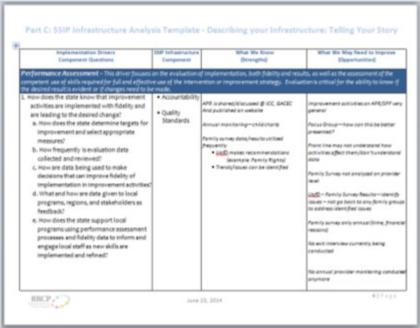
- Agenda
- Documents to review
- Enthusiastic participation
 - Rich discussion
 - Possible root causes
 - Much contribution of other data (surprisingly)





Added the Secret Ingredient—State Infrastructure Analysis Tool (http://ectacenter.org/~calls/2014/ssip/ssip.asp under Session 3 heading)





Key to using TA materials from OSEP and the TA centers to more effectively and efficiently complete Phase I activities and write the SSIP for submission



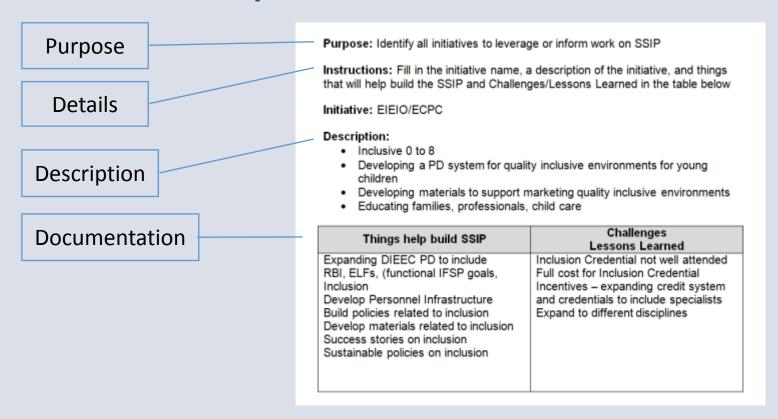


Stakeholder & State Initiatives Subcommittee

- Agenda
- No documents but organized (single) scribe
- Enthusiastic participation
 - Rich discussion
 - Small but diverse group



Used same concept as Infrastructure document



Key to using TA materials from OSEP and the TA centers to more effectively and efficiently complete Phase I activities and write the SSIP for submission





As we enter Phase II What we have:

- Good path forward
- Strong planning
- Willing participants*

What we need:

- Better digital organization
 - Limitation—State firewall
 - Limitation—State software
- Better communication between subcommittees
 - ? Updates
 - ? Activity planning
 - No Social Media





Delaware Part B Phase I SSIP Stakeholder Involvement

Delaware established 3 stakeholder groups to accomplish the work of Phase 1 of the SSIP:

1. Exceptional Children Resources

2. SSIP Work Group

- ✓ Representation/Internal: Part B 619 Coordinator, Part B 619 Data Manager, ELL Coordinator, Part B Data Manager, Curriculum & Instruction, Title I, Exceptional Children Resources, Assessment & Accountability, Teaching & Learning Branch
- √ Representation/External: Part C, Office of Early Learning





Delaware Part B Phase I SSIP Stakeholder Involvement

3. SSIP Phase 1 Advisory Council

- ✓ Representation/Internal: Part B 619, ELL, Curriculum & Instruction, Title I, Assessment & Accountability (Exceptional Children Resources/Staff to the Council)
- ✓ Representation/External: Part C, Office of Early Learning, Developmental Disabilities Council, Access to the General Education Curriculum Committee, Rodel Foundation, Transition Cadre/Council, Governor's Advisory Council for Exceptional Citizens, ELL, Special Education Directors, State Board of Education, Delaware PTA, PBS Cadre/Regional Council, Parents, Early Childhood Council





Delaware Part B Phase I SSIP Process

DDOE Exceptional Children Resources SSIP Work Group						2014							2015	
SSIP Phase 1 Advisory Council Other Stakeholder Groups	Feb	Mar	April	Мау	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Continuous Planning for SSIP Process														
Broad Data Analysis														
Identify Areas for Improvement														
Data Analysis – Root Cause Analysis														
Infrastructure Analysis														
Identify SiMR														
Identify Coherent Strategies for Improvement														
Draft Theory of Action														
Prepare Draft of SSIP														
Review of SSIP Drafts														
Planning for Phase II Stakeholder Engagement														





Delaware Part B Broad Data Analysis Process

> Selecting a Focus

 SSIP Work Group was instrumental in shaping beginning area of focus through iterative process of guiding questions.

> Identification of Data Elements and Sources

 SSIP Work Group utilized guiding questions about reading performance of students with and without disabilities, and Preschool Child Outcomes to identify data elements and sources for analysis.

> Evidence, Inferences, Further Needs

- SSIP Work Group and SSIP Advisory Council used a similar process to analyze 26 sets of data, including disability category, grade, LRE, race/ethnicity, SES, and ELL.
- Data were analyzed in isolation and in various combinations.





Delaware Part B In-depth Data Analysis

Understanding Why the problem is Occurring

• SSIP Advisory Council's broad data analysis led SSIP Work Group to consider other data elements and comparisons and request analyses of 24 additional sets of data in a variety of visual formats.

> Iterative Discussions to Finalize a SiMR and Arrive at Targets

• Over time, the data analysis process became iterative with the infrastructure analysis.

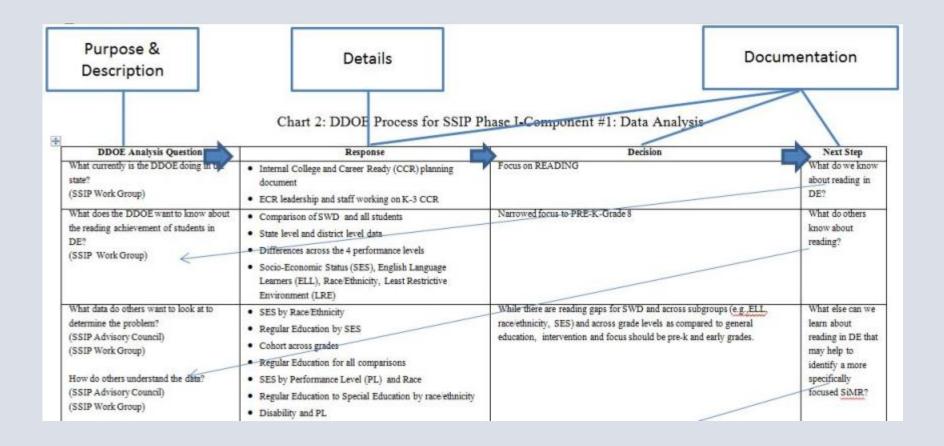
> Infrastructure Analysis

 State and local Infrastructure Systems were analyzed to identify strengths and barriers in the following areas: Governance, Fiscal, Quality Standards, Data, Professional Development, Technical Assistance, Accountability/Monitoring, and Cultural Competence





Delaware Part B Planning and Documentation Process







Delaware Part B Area of Focus



Increase the literacy proficiency of students with disabilities in K-3rd grade as measured by a decrease in the percentage of 3rd-grade students with disabilities scoring below proficiency on Delaware's statewide assessment





Aligned with the Department's Priorities

Theory of Action

Strands of Action	If	Then	Then	Then	
School Leadership	If DDOE models and provides information to LEA leaders about principles of Implementation Science to lead change,	Then LEAs and building leaders will model and provide information to staff about change strategies to improve instruction in schools;			
	If effective DDOE and LEA leaders model and expect culturally competent literacy instruction and sensitivity to the needs of students and families,	Then teachers will demonstrate culturally competent literacy instruction with linguistic awareness and be more sensitive to students' social/emotional needs;			
	If DDOE develops partnerships and effective communication among the staff of the DDOE, school administrators, teachers and parent support agencies to provide early literacy and literacy strategies for families,	Then families will have access to information and training to increase their knowledge and skills to support early literacy and literacy practices;			
Common Core	If DDOE provides a robust system of PD that supports implementation of literacy instruction in the Early Literacy Foundations and Common Core Standards using multi modal training, coaching, feedback, monitoring, data-based decision-making and evaluation,	Then LEAs will provide ongoing PD using this robust system to support Early Literacy Foundations and Common Core Standards in its schools.	Then appropriate evidence- based reading		
	If DDOE provides training to the LEAs and preschool programs on diagnostic processes and alignment with instructional strategies including assessments and tools for the five components of reading.	Then the LEAs will provide training to assessors and teachers on these diagnostic processes and selection of instructional strategies based on individual student needs;	strategies will be selected and provided to meet the unique needs of preschool-		
	If DDOE communicates and holds high expectations for the performance of SWD,	Then LEA and building leadership will be accountable for higher levels of improved performance for SWD in reading;			
Transparent Data	If the DDOE expects LEAs to use high quality data and data-based decision making,	Then the State and LEA data management systems will be robust, consistent and flexible to accept and adapt for multiple sources of data, internal and external;	3 rd grade SWD.		
Support for Struggling Schools	If DDOE identifies a select subset of LEAs as first adopters and collaboratively partners with the LEAs to identify root causes to low reading achievement, and allocates differentiated, resources as appropriate,	Then the LEA partners with selected school(s) to identify root causes of low reading achievement and combines local resources with DDOE's resources to implement evidenced-based strategies with fidelity to address root causes.			





State Example

Nebraska Part C – Cindy Hankey



Retrieved from http://wwp.greenwichmeantime.com/images/usa/nebraska.jpg





Nebraska Part C began with a look at...

- (1) Our federal child outcome data...indicated low scores for outcome C3B (acquisition and use of knowledge and skills), and
- (2) Our statewide IFSP monitoring data....indicated
 - Failed test items used to write IFSP outcomes rather than information gathered from ongoing child assessment within everyday learning opportunities,
 - b) Lack of alignment *between* family-expressed priorities and IFSP outcome development; and
 - Few IFSP outcomes related to priorities and needs about family resources and supports.





From this rather "dismal" analysis, we identified the following SiMR...

To increase the number and percentage of infants and toddlers who demonstrate progress in the acquisition and use of knowledge and skills (including early language/communication) – 3B Summary Statement 1





And we proposed this Theory of Action....

IF.

•The State provides supports and resources to local EI programs to implement authentic, evidence-based child and family assessments and quality home visits THEN

•El programs will implement routines-based early intervention with all infants/toddlers eligible for early intervention, and their families

THEN

•The number and percentage of infants and toddlers who report progress in the acquisition and use of knowledge and skills will increase.





Our supports and resources focus on 3 Coherent Improvement Strategies:

- Routines Based Interview (RBI)
- Functional child and family IFSP outcomes
- Quality home visits based on routines.

A Routines-based Approach to Early Intervention.

Assessment of Everyday Learning Opportunities -Child and Family Assessment (RBI) **Quality Home Visits Functional IFSP** - Building Family Outcomes - Based Capacity (Coaching) on Family-Identified to use Everyday **Priorities (Child and** Learning **Family Outcomes)** Opportunities from the RBI





How are we going to do this? We started with Infrastructure...

- State Leadership Team
- Geographically located RBI Trainers
- Local Stakeholder Teams (already using the RBI)
 - Pilot 1 Programs
 - Pilot 2 Programs
 - Proposed statewide scale up.....





Next, we began "Systematic Training with Fidelity"....

- □ Developed a "Nebraska Team Self-Assessment" to create context for change
- ■Developed a cadre of trained RBI coaches
- □ Developed "Nebraska RBI Boot Camps" based on the Siskin RBI Institutes 7 training components including functional outcome writing-using An RBI Implementation Checklist for approval and fidelity
- □ Developed a Quality Outcome Checklist





Based on the Phase I broad data analysis, we realized the need to continue to closely monitor...(impact on SiMR)

- □Annual results of federal child and family outcome data; and
- □ Results of statewide IFSP monitoring efforts.





For in-depth data analysis in Phases II & III, we will collect....

- □RBI Implementation Checklists with state-established minimum requirement of 85% to become approved
- □IFSP quality outcome data generated from the use of a "Quality Outcome Checklist", includes data on total # of outcomes, # of family outcomes, and numeric score of quality of the outcomes
- □ For routines-based quality home visits…we aren't there yet. Will likely develop a home visit "boot camp" with an implementation checklist



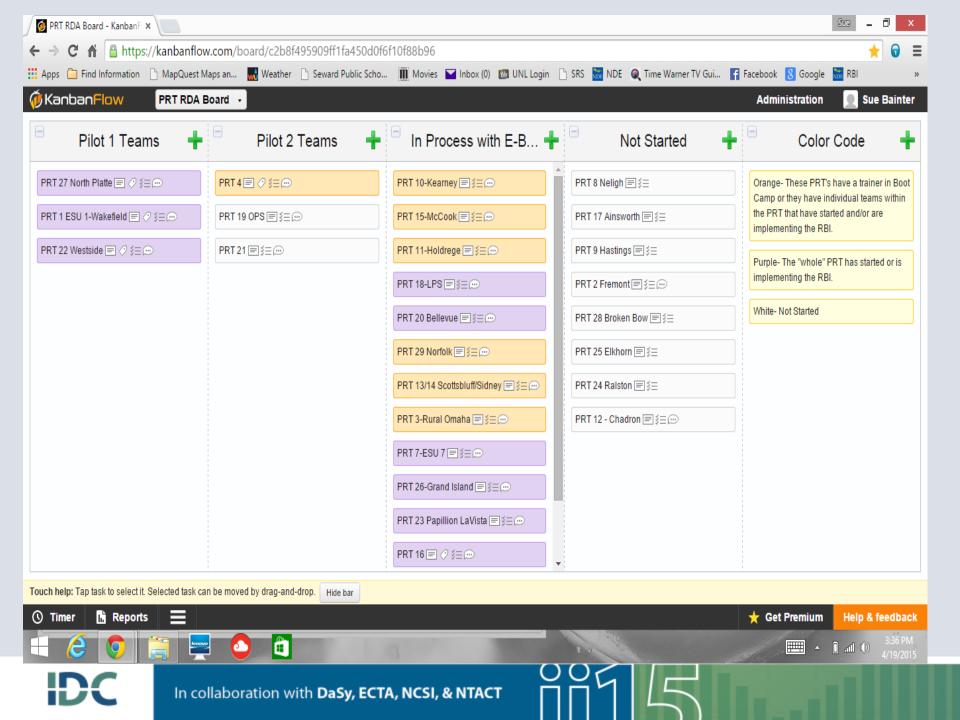


How do we Keep Track??

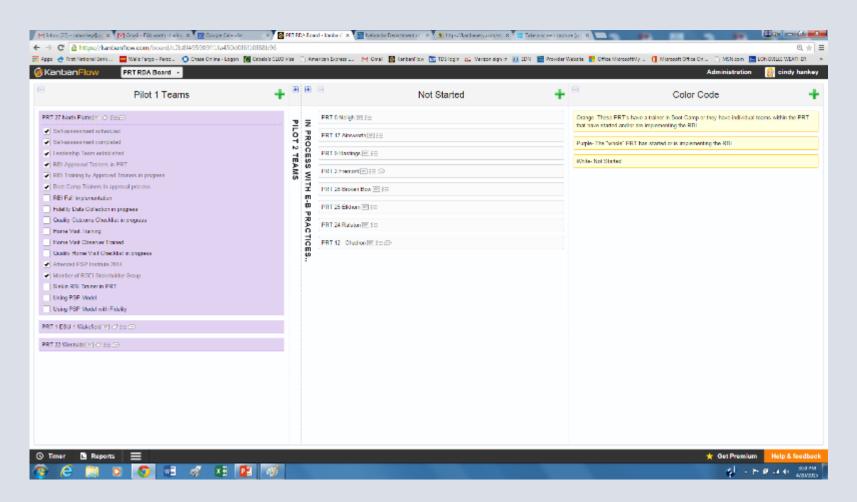
- ■We use Kanban as a "one stop shop" for our data, accessible by invite only....
- www.Kanbanflow.com is a free on-line tool for managing team project collaboration
- ■Kanban is simple and can be used to design and build buildings, manage homework, organize household chores, or for keeping track of our training....







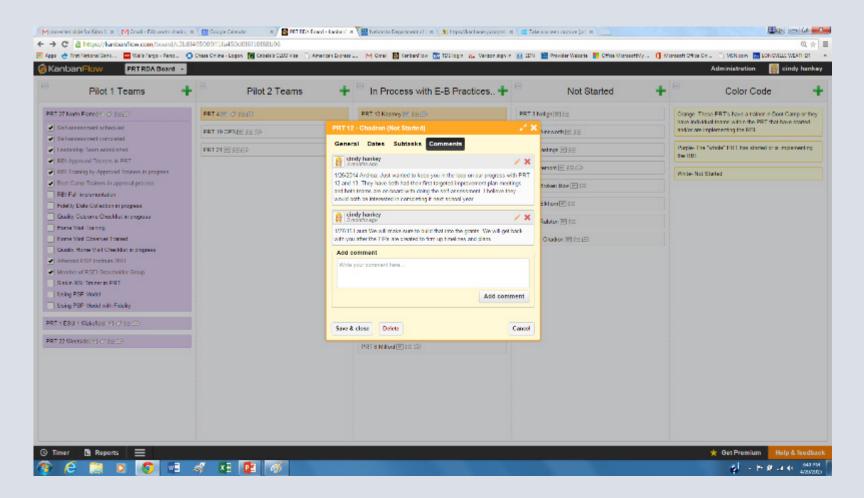
Subtasks.....





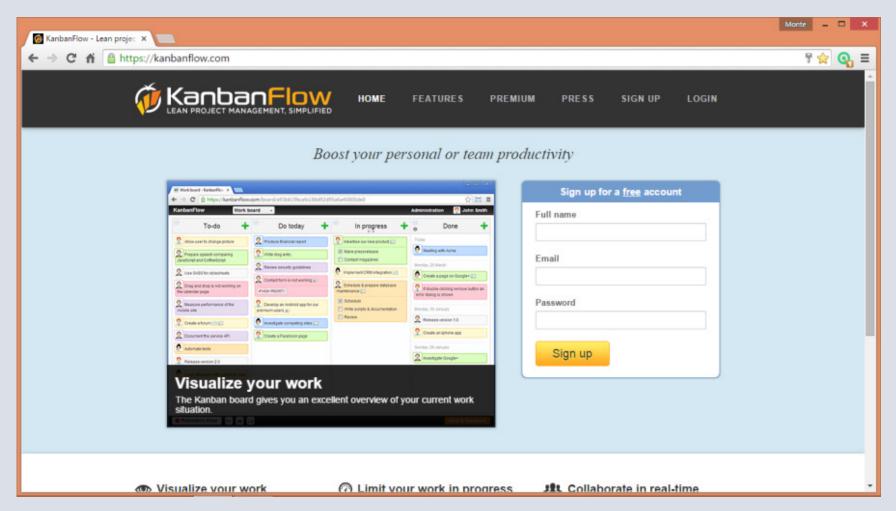


Comments....



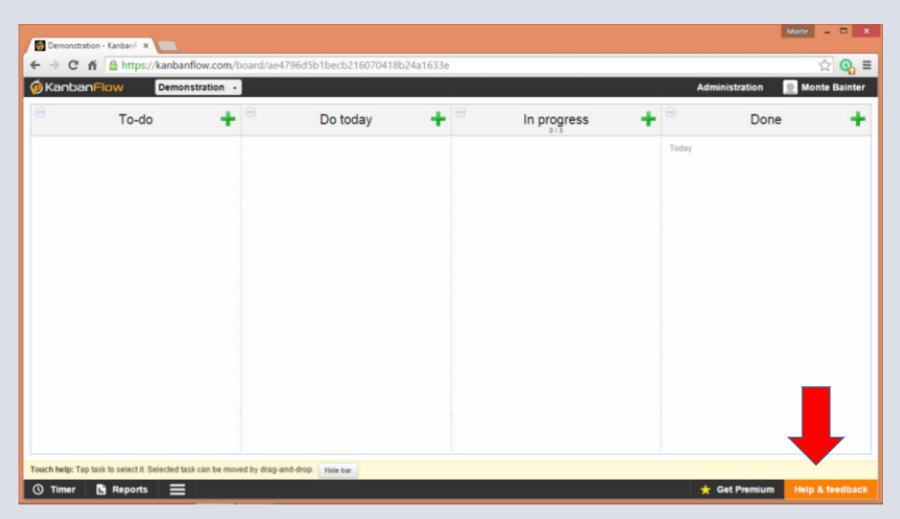






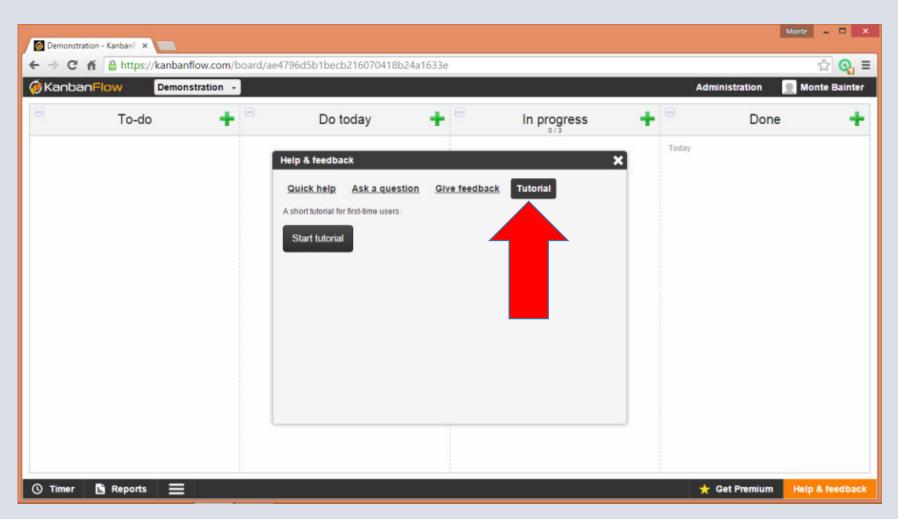






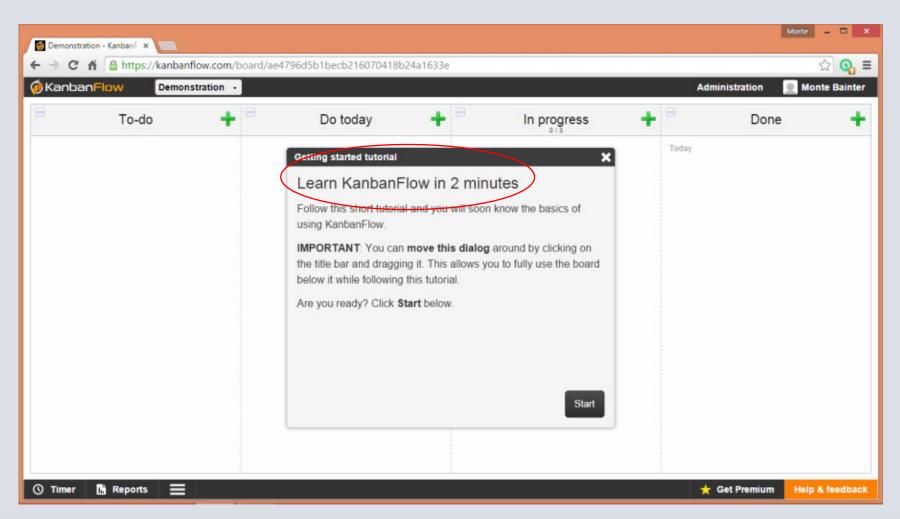
















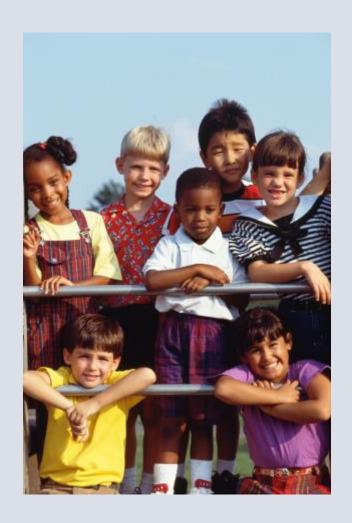
The Essential Elements in Nebraska Part C's Process

- Purpose of the collection/analysis (Not explicit however Kanban site allows for data analysis and improvement efforts)
- Description of the general topic of collection/analysis (Under description icon – broad data analyses; annual federal outcome data and monitoring outcomes)
- Details for the collection/analysis (Under subtask icon

 description of data to be collected; steps to be completed;
 topics to be analyzed)
- Documentation of decisions and findings (What Kanban is all about...a place to keep and share data collected)



Final Questions & Reactions?







Resources

- Planning, Conducting, and Documenting Data Analysis for Program Improvement
 - http://dasycenter.org/planning-conducting-and-documenting-data-analysis-for-program-improvement/
- The DaSy Data System Framework
 http://dasycenter.org/resources/dasy-framework/
- Kanban
 https://kanbanery.com/ebook/GettingStartedWithKanban.p
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Systemic Improvement

DaS



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