

# Powerful Teaching and Learning 101

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# Goal

**Explore** the research behind  
*Powerful Teaching and Learning™*  
and **practice** using the  
*STAR Classroom Observation Protocol™*

## **Powerful Teaching and Learning**

- Knowledge (*PTL: How We Define It*)
- Tools (STAR Classroom Observation Protocol)
- Skills (Observation, Discussion, Reflection)

# Agenda

## ***PTL: How We Define It***

- Start with KWL
- Introduction to PTL and STAR
- Explore Research Behind the STAR Protocol
- Simulate Small Group Observation/Debrief
- Personal Reflection

# Getting Started

What Do You Know?	What Do You Want to Know?	What Did You Learn?



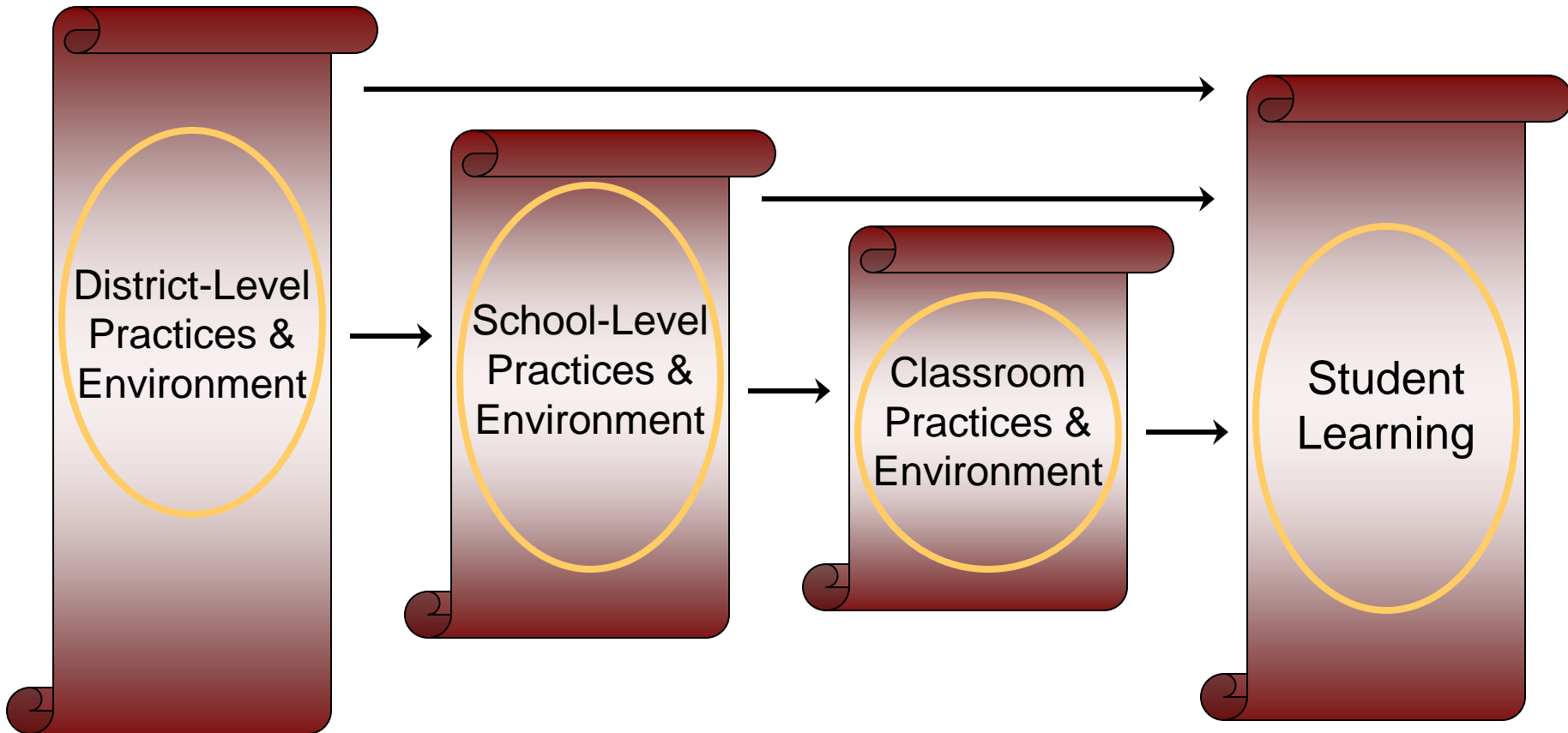
# Powerful Teaching and Learning

PTL: How We Define It

PTL: How Teachers Develop It

PTL: How Systems Support It







# Theory of Change



# The History of the Reform Movement

- 1983 – 1988 “First Wave”
  - Top down, cosmetic change, first order change
- 1988 – 1993 “Second Wave”
  - Grass roots, performance based, second order change
- Since the Early 1990’s
  - Essentialism
  - Cognitivism
  - Student-centered

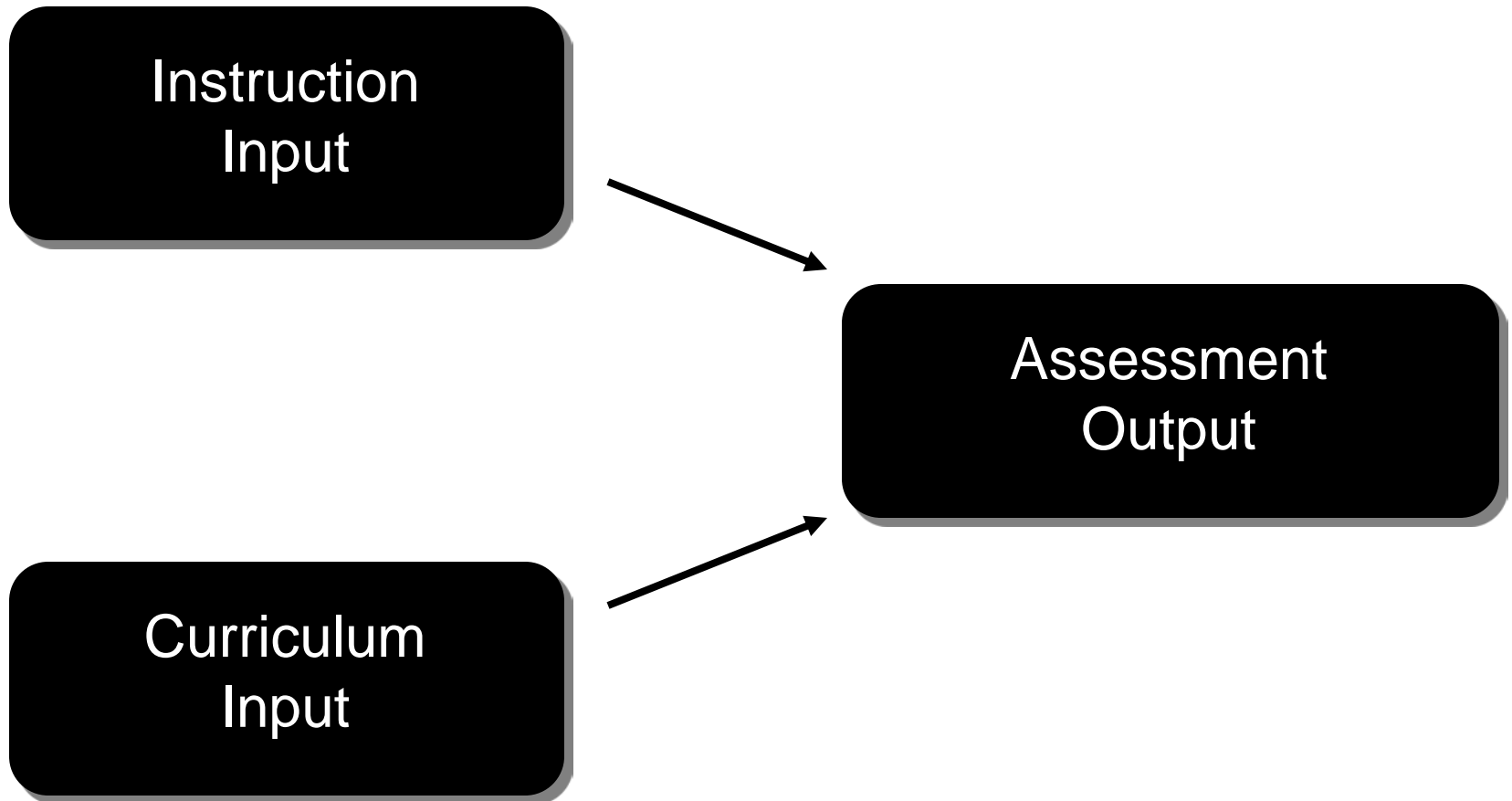
# Instructional Changes Resulting from State Education Reform Acts

Pre-reform		Post-reform
Teacher-centered		Student-centered
Norm referenced		Criterion referenced
Bell curve		J curve
Teacher information		Student performance
Student compliance		Active inquiry
Adopted curriculum		Adapted curriculum

# Education Reform Alignment

- Clear efforts around **what** to teach
  - Curriculum Alignment
- Clear efforts around **what** to test
  - Assessment Alignment
- Few efforts around **how** to teach
  - Instructional Alignment

***Powerful Teaching and Learning***



# Quick Quiz

*E* =   
*I* =   
*A* =   
*G* =   
*F* =   
*D* =   
*C* =   
*B* =   
*H* =

*Check your comprehension*

# Check Your Answers

*E* =   
*I* =   
*A* =   
*G* =   
*F* =   
*D* =   
*C* =   
*B* =   
*H* =

# Quicker Quiz

<i>A</i>	<i>B</i>	<i>C</i>
<i>D</i>	<i>E</i>	<i>F</i>
<i>G</i>	<i>H</i>	<i>I</i>

*Check your comprehension*

# Check Your Answers

*E* =   
*I* =   
*A* =   
*G* =   
*F* =   
*D* =   
*C* =   
*B* =   
*H* =

# Why is this More Effective?

<i>A</i>	<i>B</i>	<i>C</i>
<i>D</i>	<i>E</i>	<i>F</i>
<i>G</i>	<i>H</i>	<i>I</i>

# Development of the STAR Protocol

- Started with teacher surveys and was developed into an observation tool as well.
- PTL was highly correlated with state testing.
- Test scores were higher regardless of poverty.
- Students of poverty benefited most from PTL
- Students of poverty received PTL less often than their more affluent counterparts

Abbott & Fouts, WSRC 2003

[www.spu.edu/wsrc](http://www.spu.edu/wsrc) (technical reports)

## PHASE ONE PERSONAL REFLECTION

### The STAR Framework for Powerful Teaching and Learning™

#### **S** KILLS/KNOWLEDGE

Skills and/or knowledge are manifested as the teacher provides opportunities for students to develop rigorous conceptual understanding, not just recall.

#### **T** HINKING

Thinking is evident as the teacher provides opportunities for students to respond to open-ended questions, to explain their thinking processes, and to reflect to create personal meaning.

#### **A** PPLICATION

Application of skills, knowledge, and thinking is evident as the teacher provides opportunities for students to make meaningful personal connections and to extend their learning within and beyond the classroom.

#### **R** ELATIONSHIPS

Relationships are positive as the teacher creates optimal conditions for learning, maintains high expectations, and provides social support and differentiation of instruction based on student needs.



BAKER ■ EVALUATION ■ RESEARCH ■ CONSULTING

# The STAR Instructional Framework

- 5 Essential Components
  - **S**kills
  - **K**nowledge
  - **T**hinking
  - **A**pplication
  - **R**elationships
- 15 Indicators
- Multiple (95) Strategies

# STAR – Essential Components

**S**kills and/or knowledge developed at a *rigorous* conceptual level

**T**hinking that leads to personal *reflection* and higher level questions

**A**pplication of learning in a real or *relevant* context designed to make meaningful connections

**R***elationships* with/among students is critical for student learning and differentiated instruction

# STAR - Process

**S**ee classroom instruction

**T**alk about observations

**A**pply to own lessons

**R**eflect on own instructional practices

# Pause and Reflect

- Go back to Getting Started Sheet and take the next 2 minutes to fill this in with more thoughts including the 'What did you learn' column.
- Take another 3 minutes to share with person next to you.

# Seeing Teaching and Learning

- Get into groups of 4 to 5
- Each group member should pick one or two essential components to look for (make sure that all of them are covered within your group)
- Take a couple minutes now to review your section/s

# Seeing Teaching and Learning

- During the lesson, be scanning your protocol to determine if any of the Indicators (1-15) or Strategies (bullets) are being manifested.
- Feel free to whisper and chat with colleagues during the lesson.
- By end of 15 minutes you should have noted any indicators or strategies that were observable during the lesson.

# The Debrief

## Essential Component Dialogue

- Start with Relationships
- What Strategies did you see?
- List as many examples as you can.
- Mark the continuum for each **Indicator**
- Try to use “I” statements (“I saw...”)

## Personal Reflection

- Use bottom of page to keep notes during discussion
- Take a few minutes to share your reflections and how this applies to you with a partner

# The Continuum

## If to the right

- What Strategies did we see that made this clearly observable?
- What Strategies can I make sure I am using in my own classroom?

## If in the middle

- What would have made it more Clearly Observable?
- How can I make sure this Indicator is Clearly Observable in my own classroom?

## If to the left

- We just did not see it today, but how could it have been manifested in this context?
- How often is this indicator manifested in my classroom?

# RELATIONSHIPS

*Do interpersonal interactions reflect a supportive learning environment?*

TEACHER	<b>13. Teacher assures the classroom is a positive, inspirational, safe, and challenging academic environment</b>	Not Observable    Clearly Observable <input type="range"/>
	<ul style="list-style-type: none"><li>• Interacts positively with students</li><li>• Solicits and encourages students' ideas</li><li>• Models and expects responsible behavior</li><li>• Provides challenging assignments</li><li>• Assures routines and rituals are in place that allow students to work and move comfortably in the room</li><li>• Encourages students to share their ideas, thoughts, and/or feelings</li><li>• Creates a welcoming environment where students feel safe, secure, and respected, and there is an atmosphere of respect, sincerity, warmth, and humor</li></ul>	
	<b>14. Students work collaboratively to share knowledge, complete projects, and/or critique their work</b>	Not Observable    Clearly Observable <input type="range"/>
STUDENTS	<ul style="list-style-type: none"><li>• Receive social support for learning through periodic grouping with peers (response partners, triads, small groups, etc.)</li><li>• Make comments and respond to peers in a positive and constructive manner</li><li>• Participate in writing groups/peer editing groups/reading groups/research groups/lab groups/problem solving groups</li></ul>	
	<b>15. Students experience instructional approaches that are adapted to meet the needs of diverse learners (differentiated learning)</b>	Not Observable    Clearly Observable <input type="range"/>
ME	<b>What am I currently thinking about RELATIONSHIPS? How does this apply to ME?</b>	

# APPLICATION

Did students extend their learning into relevant contexts?

TEACHER	<b>10. Teacher relates lesson content to other subject areas, personal experiences, and contexts</b>	Not Observable    Clearly Observable <input type="checkbox"/>
	<ul style="list-style-type: none"><li>• Relates lesson content to prior learning</li><li>• Integrates multiple subject areas</li><li>• Relates information to a real world problem</li><li>• Makes meaningful personal and/or cultural connections</li><li>• Shares a personal story related to lesson content</li><li>• Demonstrates connection to a personal experience</li></ul>	
STUDENTS	<b>11. Students demonstrate a meaningful personal connection by extending learning activities in the classroom and/or beyond the classroom</b>	Not Observable    Clearly Observable <input type="checkbox"/>
	<ul style="list-style-type: none"><li>• Make meaningful personal connections</li><li>• Share a personal story</li><li>• Address a real world/contemporary problem</li><li>• Design lab procedures for an experiment</li><li>• Carry out independent research</li><li>• Participate in a relevant simulation</li><li>• Articulate the purpose of a particular project</li><li>• Present work and/or finished projects to an audience</li></ul>	
ME	<b>12. Students produce a product and/or performance for an audience beyond the classroom</b>	Not Observable    Clearly Observable <input type="checkbox"/>
	<b>What am I currently thinking about APPLICATION? How does this apply to ME?</b>	

# THINKING

Did students demonstrate thinking through reflection and/or metacognition?

TEACHER	<p><b>7. Teacher uses a variety of questioning strategies to encourage students' development of critical thinking, problem solving, and/or communication skills</b></p> <ul style="list-style-type: none"><li>• Asks students their opinions</li><li>• Gives sufficient wait time</li><li>• Asks open-ended questions</li><li>• Focuses on higher-order thinking questions</li><li>• Probes student responses beyond a correct answer</li><li>• Elicits responses from multiple students to a question</li><li>• Solicits contributions from all students</li></ul>	Not Observable   Clearly Observable <input type="checkbox"/> <input type="checkbox"/>
	<p><b>8. Students develop and/or demonstrate effective thinking processes either verbally or in writing</b></p> <ul style="list-style-type: none"><li>• Participate in a discussion around an issue</li><li>• Articulate thinking strategies</li><li>• Practice thinking in the context of required content</li><li>• Explain problem-solving processes</li><li>• Critique lab procedures</li><li>• Provide verbal and/or written feedback to peers</li><li>• Develop and/or demonstrate real-world connections</li><li>• Provide their own opinions on a topic or issue</li></ul>	Not Observable   Clearly Observable <input type="checkbox"/> <input type="checkbox"/>
STUDENTS	<p><b>9. Students demonstrate verbally or in writing that they are intentionally reflecting on their own learning</b></p> <ul style="list-style-type: none"><li>• Demonstrate metacognition</li><li>• Make a text-to-text and/or text-to-self connection</li><li>• Examine own biases on an issue</li><li>• Monitor thinking and adjust strategies</li><li>• Reflect quietly to gain personal meaning (journals, exit slips, etc.)</li><li>• Students rethink/revise work based on data, self-evaluation, and/or constructive feedback from peers/teachers</li></ul>	Not Observable   Clearly Observable <input type="checkbox"/> <input type="checkbox"/>
ME	<p><b>What am I currently thinking about THINKING? How does this apply to ME?</b></p>	

# KNOWLEDGE

Did students demonstrate depth of conceptual understanding?

TEACHER	<b>4. Teacher assures the focus of the lesson is clear to all students</b> <ul style="list-style-type: none"><li>Assures students are aware of lesson objectives and assures that students know how to meet the objectives</li><li>Organizes lesson around guiding/essential questions and/or enduring understandings</li><li>Aligns lesson with state goals and learning targets</li></ul>	Not Observable   Clearly Observable <input type="checkbox"/> <input type="checkbox"/>
	<b>5. Students construct knowledge and/or manipulate information and ideas to build on prior learning, to discover new meaning, and/or to develop conceptual understanding, not just recall</b> <ul style="list-style-type: none"><li>Generate their own ideas, questions, or hypotheses</li><li>Synthesize information</li><li>Analyze/critically examine information</li><li>Discuss a public issue</li><li>Use evidence/data to support an opinion</li><li>Use symbolic representation</li><li>Arrive at a conclusion or interpretation</li></ul>	Not Observable   Clearly Observable <input type="checkbox"/> <input type="checkbox"/>
STUDENTS	<b>6. Students engage in significant communication, which could include speaking/writing, that builds and/or demonstrates conceptual knowledge and understanding</b> <ul style="list-style-type: none"><li>Make distinctions</li><li>Apply/explain/debate ideas</li><li>Form generalizations</li><li>Raise questions</li><li>Formulate coherent/complete questions</li><li>Participate in a literature circle</li><li>Conduct a simulation</li><li>Demonstrate the use of vocabulary and fundamental concepts of a subject area</li></ul>	Not Observable   Clearly Observable <input type="checkbox"/> <input type="checkbox"/>
ME	<b>What am I currently thinking about KNOWLEDGE? How does this apply to ME?</b>	

# SKILLS

Did students actively read, write, and/or communicate?

TEACHER	<p><b>1. Teacher provides an opportunity for students to develop and/or demonstrate skills through elaborate reading, writing, speaking, modeling, diagramming, displaying, solving and/or demonstrating</b></p> <ul style="list-style-type: none"><li>• Poetry/essays/journals/research papers</li><li>• Response logs/lab reports/data tables/graphic displays</li><li>• Dialogue/debate/skits/presentations</li><li>• Develop arguments</li></ul>	Not Observable    Clearly Observable <input type="checkbox"/> <input type="checkbox"/>
	<p><b>2. Students' skills are used to demonstrate conceptual understanding</b></p> <ul style="list-style-type: none"><li>• Organize/sequence/categorize information</li><li>• Consider alternatives</li><li>• Interpret and/or evaluate</li><li>• Predict/hypothesize</li><li>• Compare/contrast</li><li>• Analyze cause and effect</li><li>• Develop model/simulation/original creation</li><li>• Communicate conceptual understanding</li></ul>	Not Observable    Clearly Observable <input type="checkbox"/> <input type="checkbox"/>
STUDENTS	<p><b>3. Students demonstrate appropriate methods and/or use appropriate tools within the subject area to acquire and/or represent information</b></p> <ul style="list-style-type: none"><li>• Read and/or analyze text or other data</li><li>• Produce a piece of creative or expository writing</li><li>• Participate in a discussion/debate/oral presentation</li><li>• Use and/or develop graphic organizer</li><li>• Conduct interviews or focus groups around a topic</li><li>• Construct a written or visual explanation to a phenomenon</li><li>• Use manipulatives/maps/primary sources</li><li>• Identify information sources to be used in a project</li><li>• Develop a visual (or other artistic) representation of information</li></ul>	Not Observable    Clearly Observable <input type="checkbox"/> <input type="checkbox"/>
ME	<p><b>What am I currently thinking about SKILLS? How does this apply to ME?</b></p>	

# Final Reflections

- What did you learn?
- Make a commitment to change
- Record commitment in journals