

New England Secondary School Consortium  
Regional High School Conference  
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2010

Overcoming Instructional Hurdles in Improving  
Instruction and Student Learning in a Connecticut  
Technical High School

**A.I. Prince Technical High School**

<http://cttech.org/prince>

- ❖ William Chaffin, Principal
- ❖ Sal Randazzo, Executive Coach, CALI
- ❖ Polly Innerarity, Department Head, Graphics Technology
- ❖ Lisa Higgins, Director, School Counseling and Admissions
- ❖ Deirdre Shaw, Related Education Department Head



# Objectives

- Understand how a technical high school in Connecticut operates
- Understand the instructional challenges at A.I. Prince within the context of NCLB
- Understand the instructional initiatives employed at A.I. Prince and the resulting improvements





The statue of "The Craftsman" that marks the entrance to the school was moved from 110 Washington Street to the new school in 1960 as a symbol of the school's heritage. The statue is of a man dressed in work clothes who is contemplating his work.

"The Craftsman" represents the ideal of the "reflective practitioner," the individual who can create a design, solve the problems, do the work to finish the project, and then reflect upon the process to seek improvements.



# What makes us a Technical High School?



# Our Students' Hometowns



- East Hartford
- Glastonbury
- Hartford
- Manchester
- Newington
- Wethersfield
- Windsor



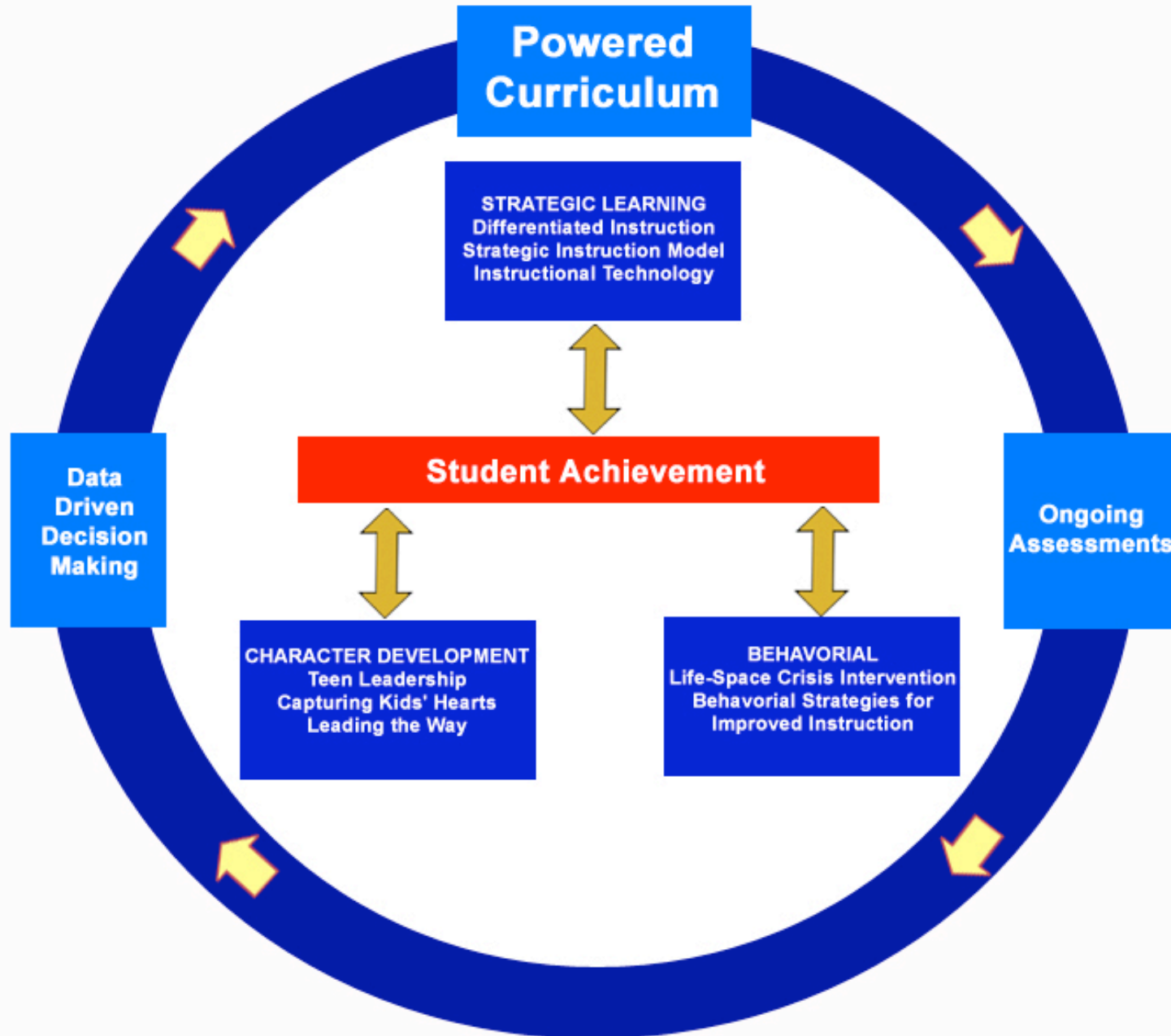
# Mission Statement

The mission of the Connecticut Technical High School System is to provide a unique and rigorous high school learning environment that:

- ✓ Ensures both student academic success, and trade/technology mastery and instills a zest for lifelong learning
- ✓ Prepares students for post-secondary education, including apprenticeships, and immediate productive employment; and
- ✓ Responds to employers' and industries' current and emerging and changing global workforce needs and expectations through business/school partnerships.

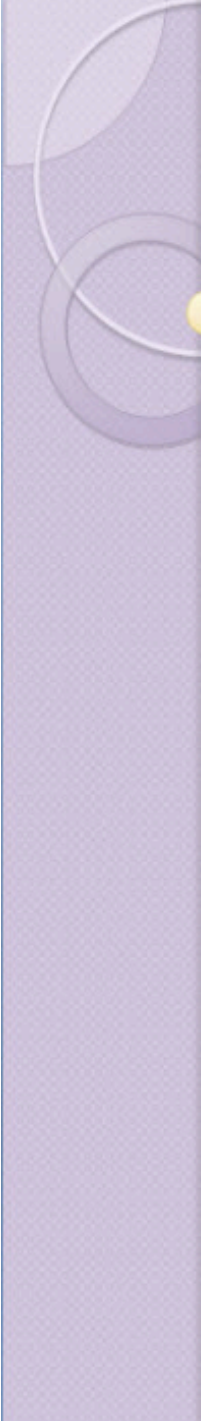


# IMPLEMENTATION MODEL



## CTHSS District Goals and Objectives 2007-12

<b>Goal 1</b>	Students will demonstrate high academic achievement.
<b>Objective 1</b>	60% of CTHSS students will score at or above the state goal on the four CAPT assessments.
<b>Goal 2</b>	Students will demonstrate mastery of their trade technology.
<b>Objective 2</b>	80% of CTHSS students will score at or above the National Average on National Occupational Competency Testing Institute tests.
<b>Goal 3</b>	Students will become physically fit.
<b>Objective 3</b>	80% of CTHSS students will score at or above the proficient standard on the Connecticut Physical Fitness Assessment.
<b>Goal 4</b>	Schools will increase their number of graduates.
<b>Objective 4</b>	90% of entering 9th graders will graduate from their technical high school.
<b>Goal 5</b>	Schools will successfully recruit and enroll qualified students.
<b>Objective 5</b>	Each school's enrollment will be a minimum of 90% of capacity.



# Measuring Student Achievement and Instructional Standards in Connecticut and the Connecticut Technical High Schools



# Overview of Testing Programs

**NOCTI**

**Performance**

Automated Manufacturing  
Automotive Technology  
Carpentry  
Collision Repair  
Culinary Arts  
Electrical  
Graphic Communications  
Information Systems  
Technology  
Masonry  
Plumbing

**CAPT**

**Mathematics**

**Science**

**Reading  
Across the  
Disciplines**

**Writing  
Across the  
Disciplines**



# Overview of Testing Programs

NOCTI

**Performance**



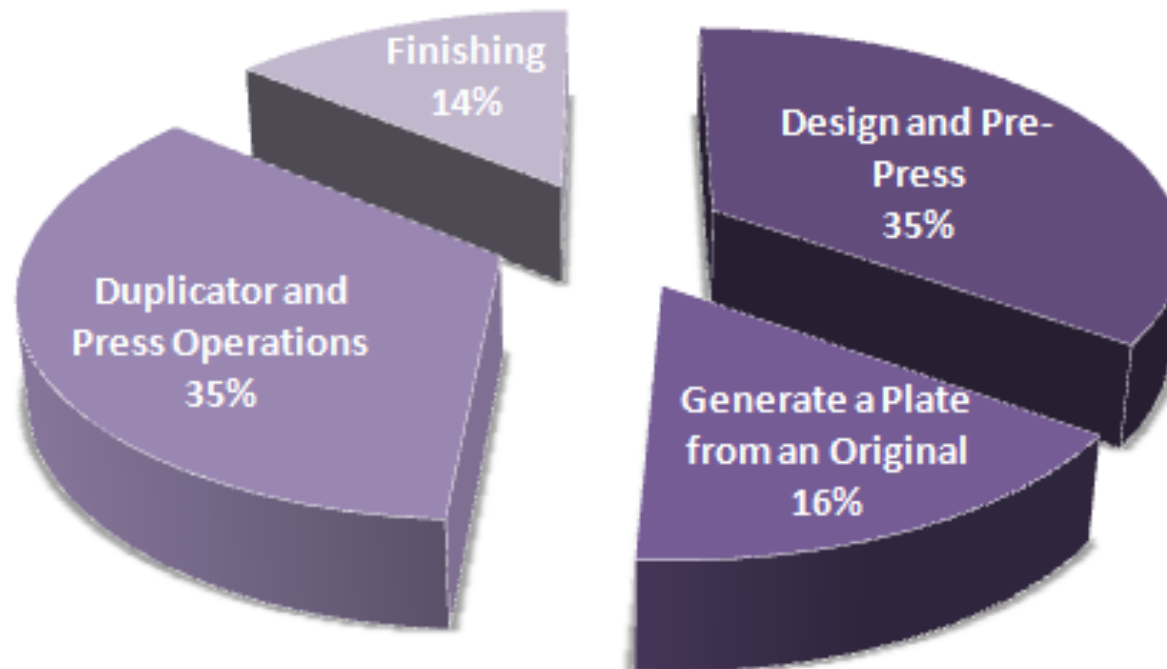
# National Occupational Competency Testing Instrument (NOCTI)

- NOCTI's Job Ready assessments are designed to measure a student's knowledge of basic processes and essential skills in their given trade areas.
- Student benefits:
  - Provides specific feedback on their individual knowledge and skill development
  - Enhances the transition between school and work
- Student results provide indicators for curricular and instructional improvement for school personnel in the areas of:
  - . Curriculum effectiveness
  - . Instructional methods



# Graphics Technology NOCTI Performance Assessment

- Administration Time: 2 hours and 35 minutes
- Number of Jobs: 4



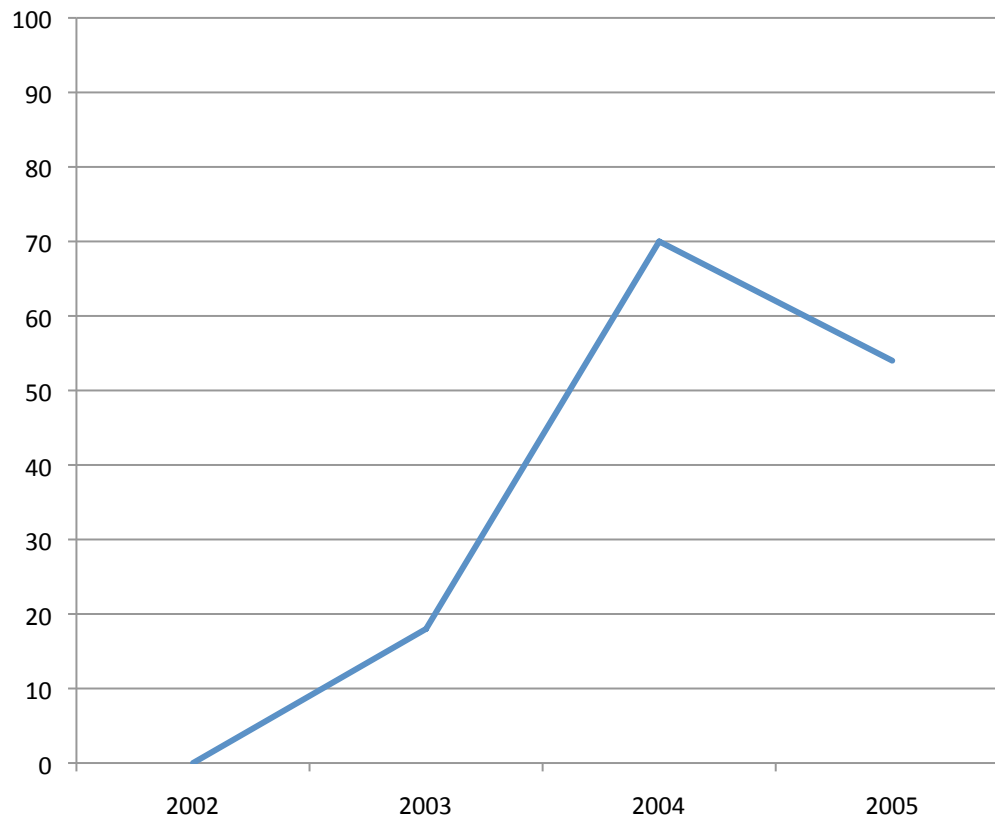
How are NOCTI data results utilized to improve overall instruction in all of our trade curricula?

- Trade Steering Committees review data and adjust curricula.
- Trade instructors review NOCTI data and construct improvement plans.



# NOCTI Results 2002-2005

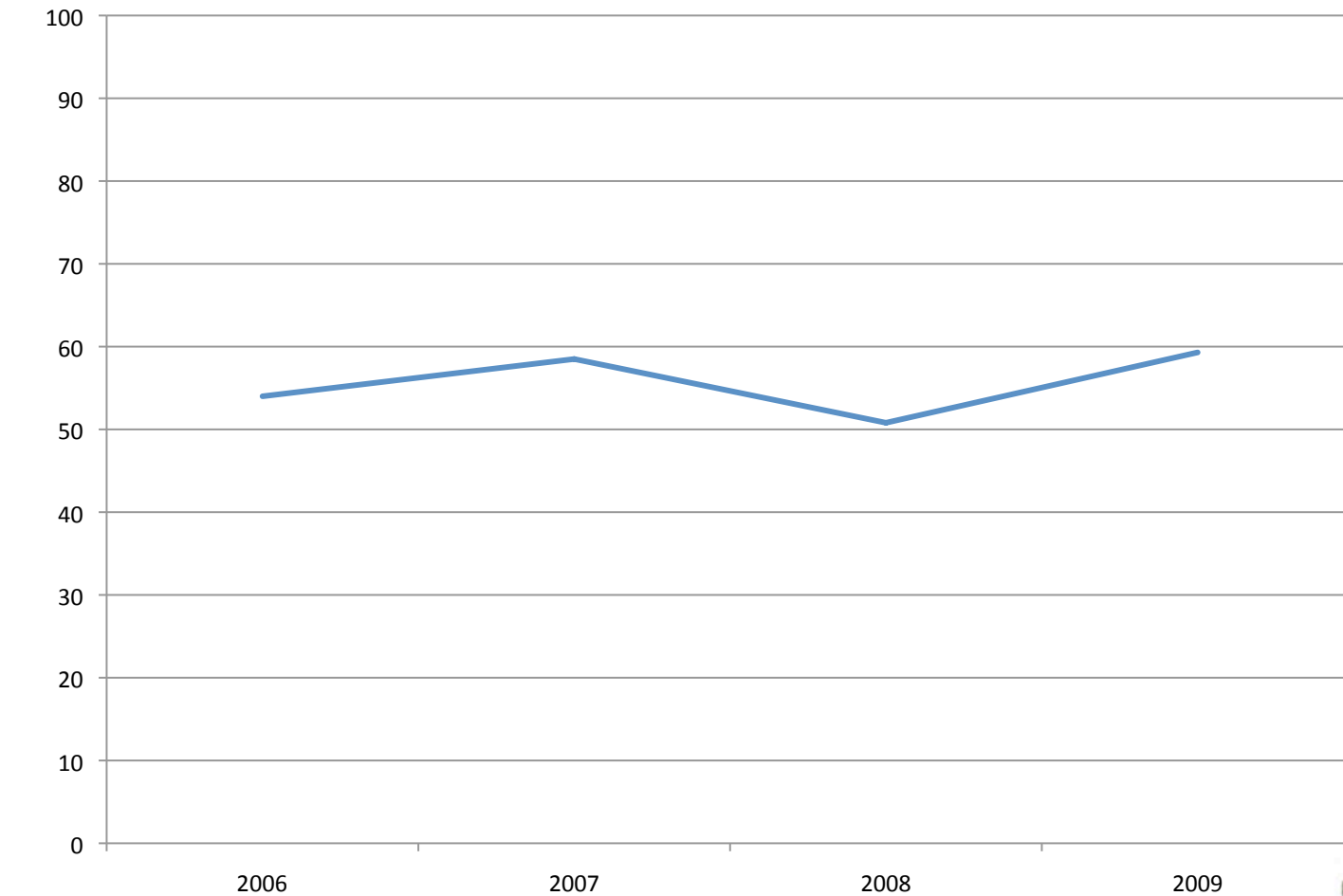
## A. I. Prince Tech - NOCTI



— % of shops that exceeded the National Average



# NOCTI Results 2006 – 2009



— % of students at or above the national average



# Overview of Testing Programs

**CAPT**

**Mathematics**

**Science**

**Reading  
Across the  
Disciplines**

**Writing  
Across the  
Disciplines**



# What is CAPT?

The standard for each subtest of the Connecticut Academic Performance Test represents a demanding level of achievement, reasonable to expect of students in the spring of 10<sup>th</sup> grade. Students who score at this level possess the knowledge, skills and critical thinking abilities expected of Connecticut's high school students as they prepare for the workplace and/or higher education. These students can apply what they know to complex problems and can effectively communicate their understanding.



# 5 Levels of CAPT Achievement

- Advanced
- Goal
- Proficient
- Basic
- Below Basic

NCLB and AYP equals the percentage of students scoring at proficient or above



# CAPT Results in 2003

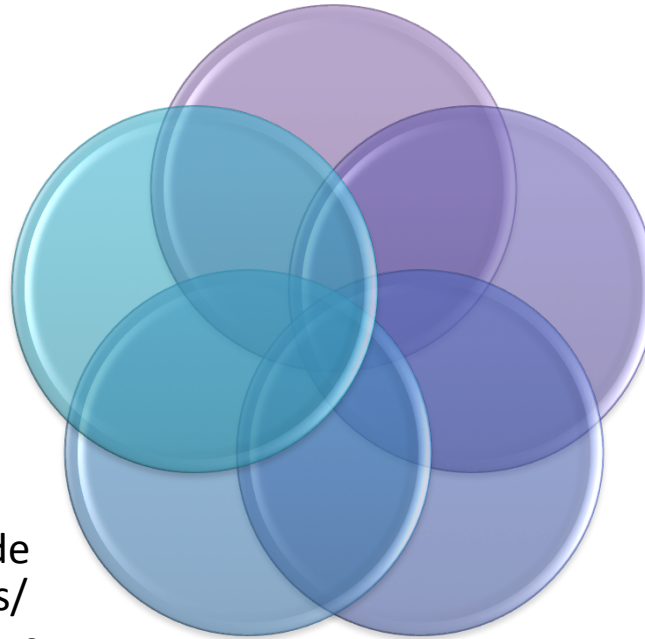


# Earlier Obstacles to Academic Achievement

Limited instructional  
time in academics  
( 90 days)

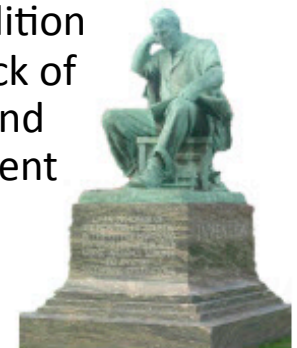
Lack of  
understanding and  
use of research-  
based strategies

Lack of school-wide  
instructional focus/  
lack of content focus  
in trades



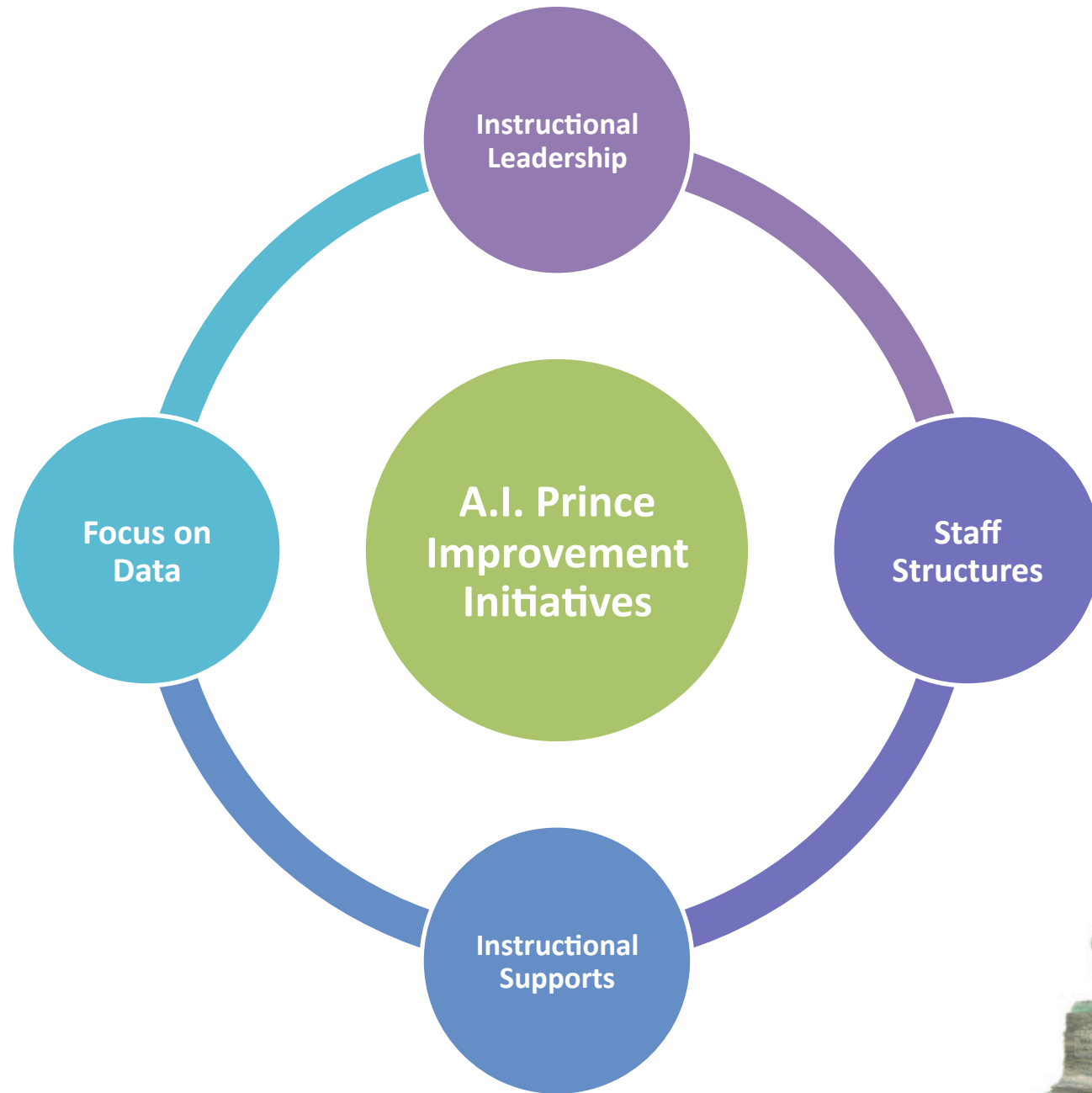
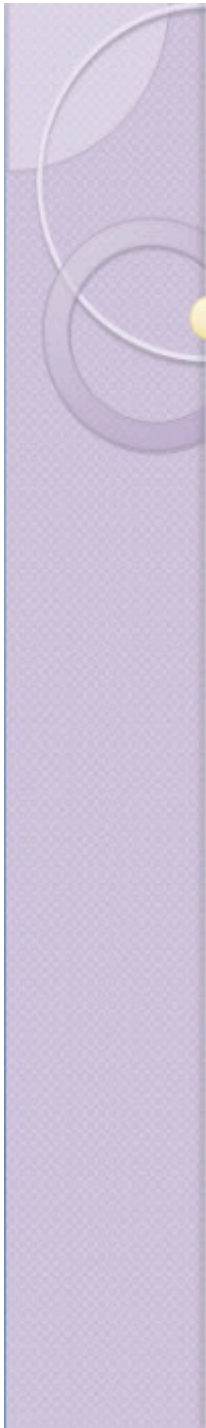
15 day cycles ->  
6 day cycles ->  
9 day cycles

School Climate -  
discipline, condition  
of building , lack of  
technology and  
trade equipment



# District Initiatives







## Instructional Leadership

- Use of the SWDT /Cabinet to construct and monitor the school improvement plan
- Regular Lesson Plan Reviews (rubric)
- Increase in administrative walkthrough visitations with targeted feedback





## Staff Structures

- Looping instructional cohorts for grades 9 & 10
- Meeting time in schedule for collaboration
- Unique structure and staffing for math labs





## Instructional Supports

- School-wide focus on non-fiction writing (90-90-90 Study, Reeves, 2000) with a school-wide rubric
- Monthly PD focused on district and school initiatives
- Math and Language Arts Learning Labs during trade cycle
- Integration of Renaissance Learning Software in labs
- Use of Math Coach in trades
- Extended –Day Programs





## Focus on Data

- School-wide Data Team
- Instructional Data Teams – focused on use of CFA and DDDM Process
- Use of Executive Coach and Data Facilitator for feedback and reflection
- Data-driven NOCTI improvement plans



A.I. Prince CAPT  
2004-2009

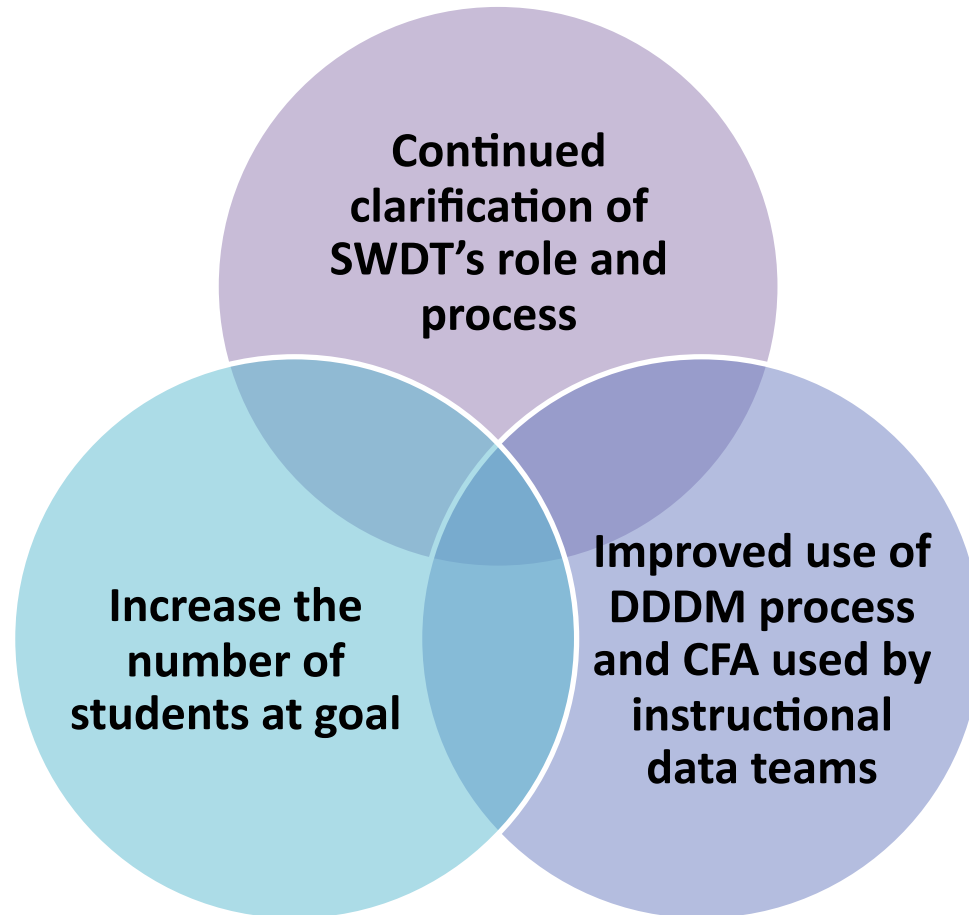


# The Leadership/Learning Matrix (L2 Matrix)

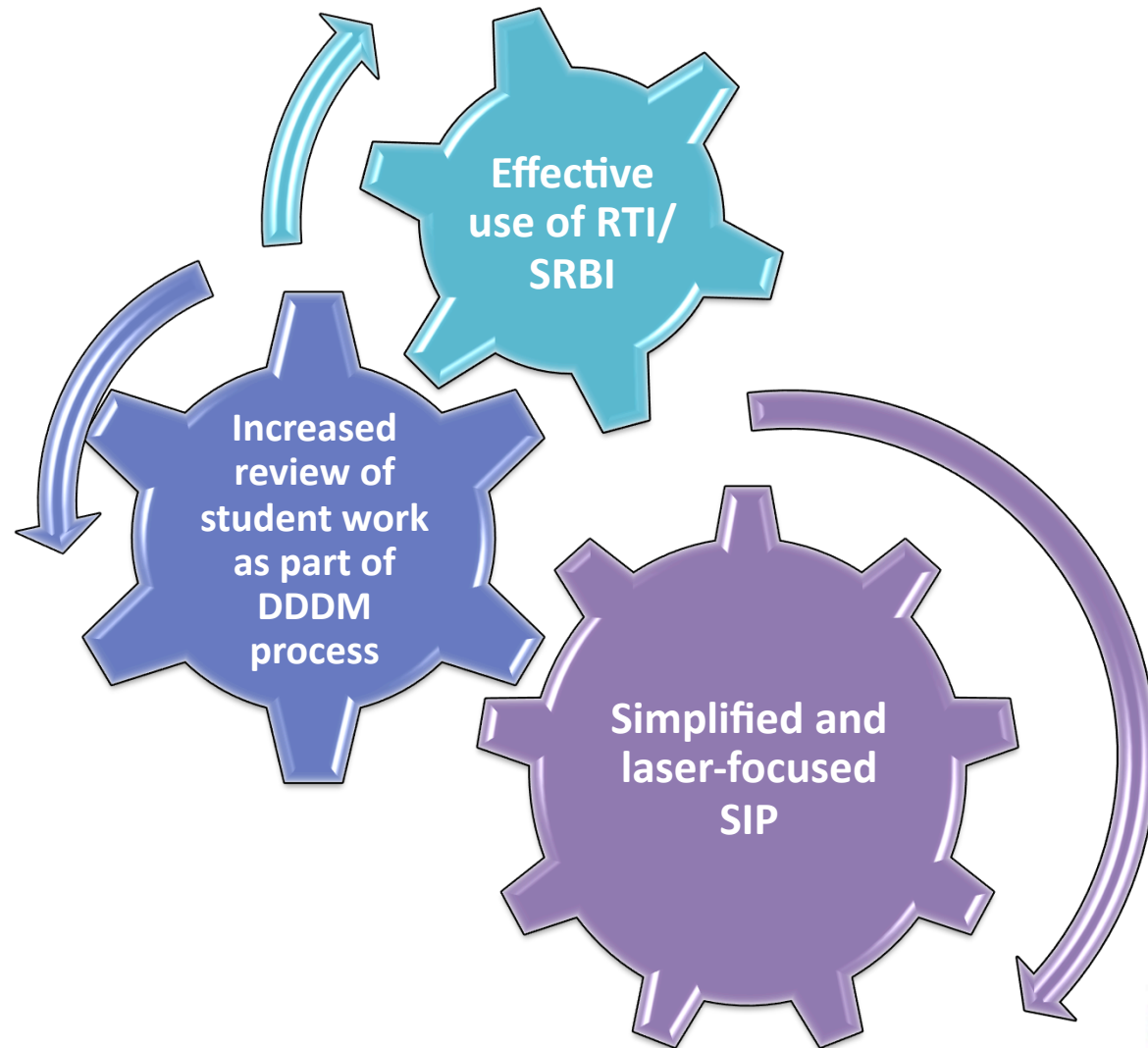
<b>Effects/Results Data</b>	<b><i>Lucky</i></b> <ul style="list-style-type: none"><li>➤ High results, low understanding of antecedents</li><li>➤ Replication of success unlikely</li></ul>	<b><i>Leading</i></b> <ul style="list-style-type: none"><li>➤ High results, high understanding of antecedents</li><li>➤ Replication of success likely</li></ul>
	<b><i>Losing Ground</i></b> <ul style="list-style-type: none"><li>➤ Low results, low understanding of antecedents</li><li>➤ Replication of failure likely</li></ul>	<b><i>Learning</i></b> <ul style="list-style-type: none"><li>➤ Low results, high understanding of antecedents</li><li>➤ Replication of mistakes unlikely</li></ul>

**Leadership/Teaching Practices**

# Remaining Challenges



# Future Work



# Questions?



# Contact Information

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