



 DISTRICT DIGITAL CONVERSION



Utah's commitment to transforming education through technology enabled personalized learning – “Dr. Semmelweis”

- The STEM Action Center implemented through House Bill 139 (HB 139) to develop Utah's future workforce by prioritizing STEM education and “create a hub of collaboration to improve the effectiveness of all the STEM Action Center partners”. First phase was to pilot to help close the performance gap for 7th and 8th grade math.
 - *“Using this data, we conducted an analysis called Hierarchical Linear Modeling that accounts for students being clustered in classes in a school to determine if there was a statistically significant difference between mathematics gains made by students using the product and students not using the product (control group). ALEKS was the only product where a statistically significant difference ($p < .01$) was found where students using the product outperformed students not using the product.” (source UT State Stem Action Center Technology Pilot – Preliminary Assessment Report February 2014)*





A **BLUE PRINT** FOR
DISTRICT DIGITAL CONVERSION

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Social
Networking

Leveling the
Playing Field

Higher
State
Standards

Gen Z
Relevance

Financial
Pressure

Global
Competition for
Talent

Status Quo
Intolerance

Ubiquitous
Tech



Lessons Learned



Designed to Aid all Teachers & Learners

Support New Digital Instructional Practices



Reliable and Easy to Use



Interoperability Matters



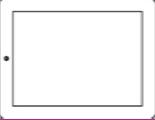
Proven Results



Reduce Risks



Enabling Learning



Hardware is Not a Solution

Understand TCO

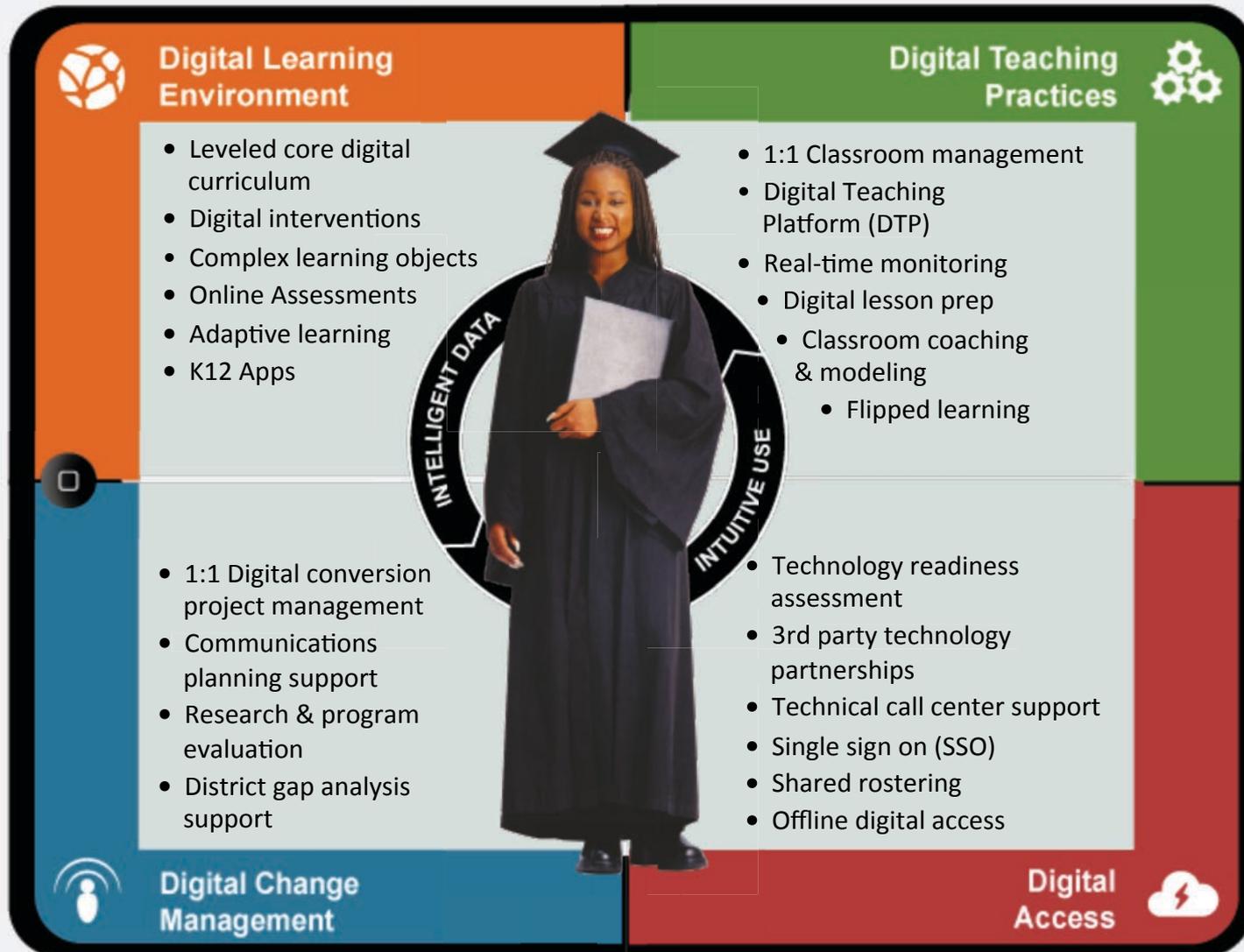


It's a Process, Not an Event



Actionable Real Time Data is Essential

MHE Digital Conversion Framework





**Designed to Aid All Teachers
and Learners**

Designed to Aid All Teachers and Learners

Ask yourself,
Where would you plot your teachers on these continuums?

Tech Novice  Tech Expert

Stand & Deliver  Digital Facilitator

Basic Digital Use  Inquiry Based Learning



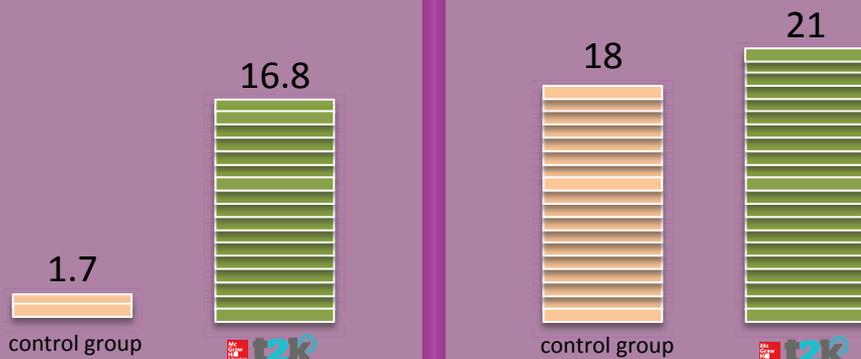
Number of One-to-One Teacher-Student Interactions

Teacher Initiated Interactions



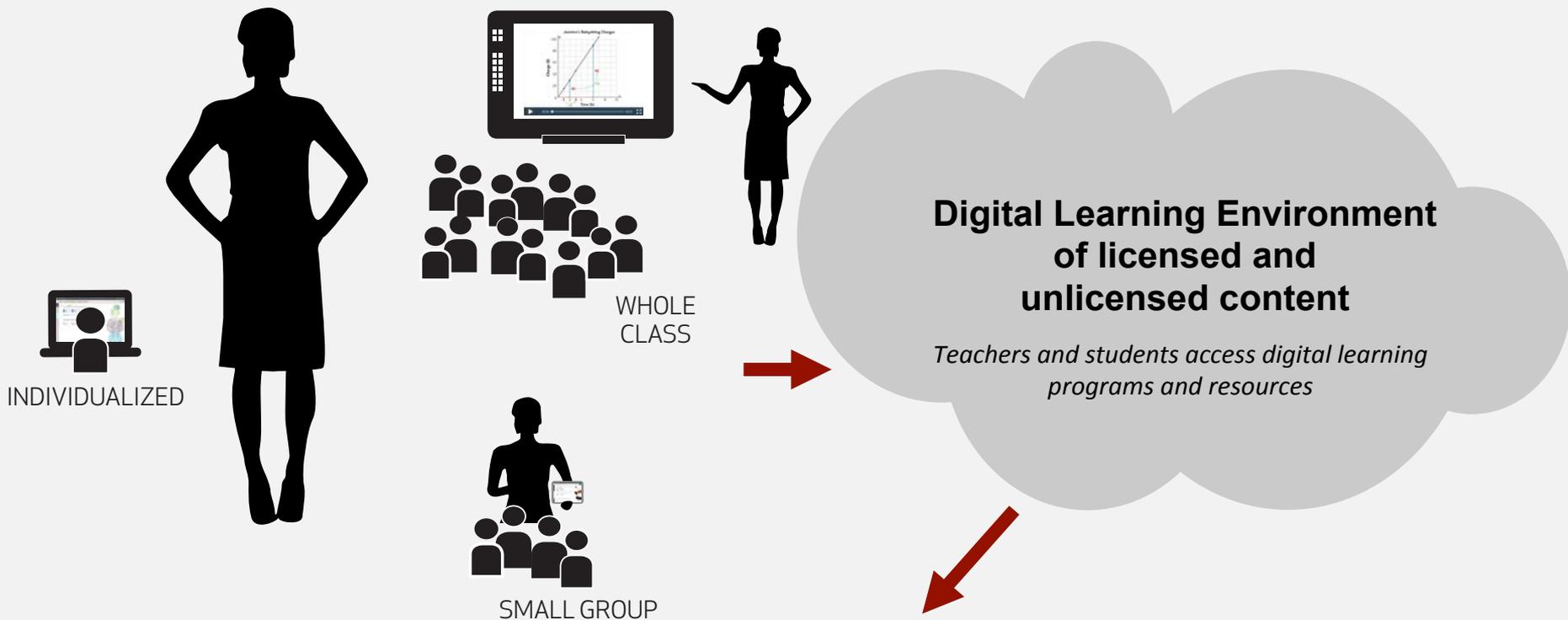
96% increase teacher initiated interactions than the control group.

Student Initiated Interactions



67% increase student initiated interactions than the control group.

DISTRICT DIGITAL CONVERSION



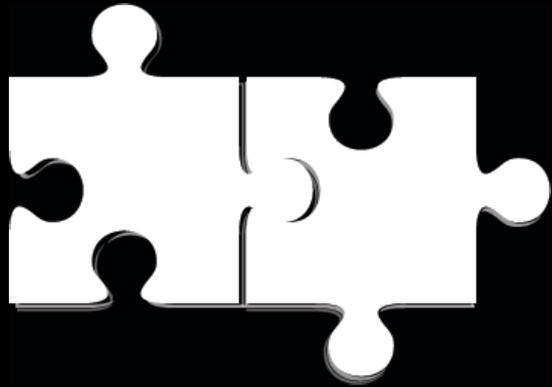
Customization	Pedagogical Focus (Preconfigured)		Data/Analytics Driven
Collections	Scope & Sequence	Prescriptive (Teacher Centric)	Adaptive (Student Centric)

CUSTOMIZATION

DATA-INFORMED

DATA-DRIVEN

ADAPTIVE



Interoperability Matters

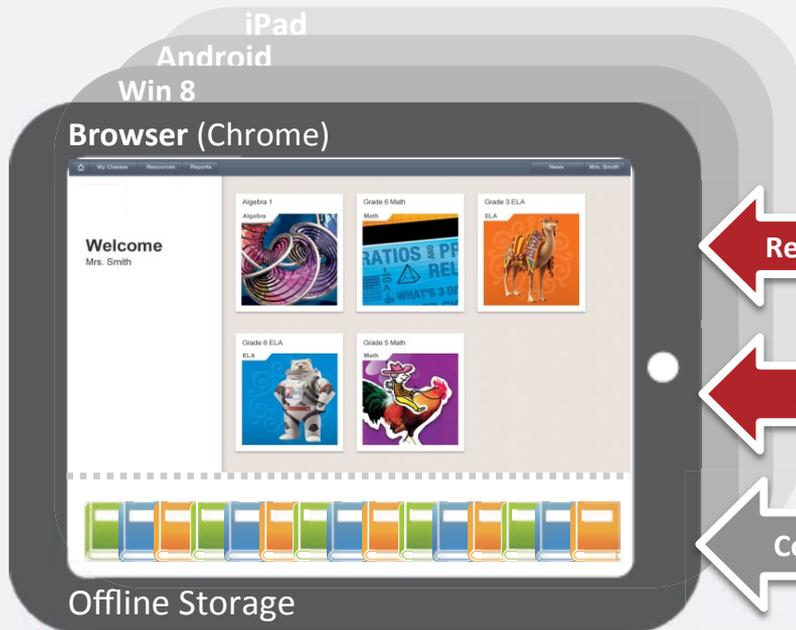
Interoperability Matters

Four important levels of interoperability:

1. **Device & Mobility:** Device platform independent and ability to access cloud and support 24/7 learning
2. **Data & Programs:** Allow educators to access all of their programs and data from a single place
3. **Program Functionality:** Programs designed to perform well in a 1:1 computing setting
4. **Compound Learning Objectives (CLO's):** Open standards and intelligent CLO's will become the fuel that powers all digital learning and instruction

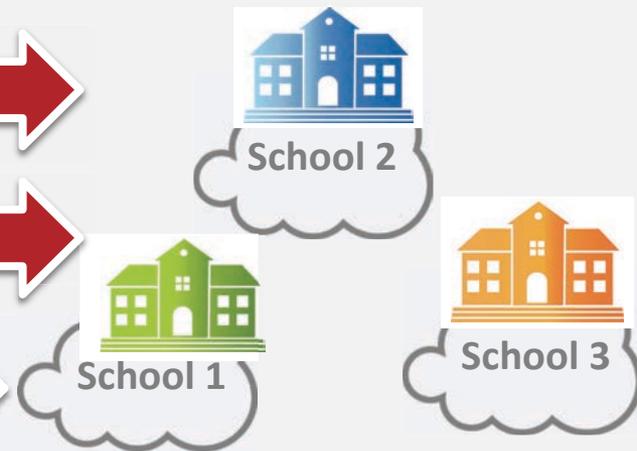
Device & Mobility

DEVICE



CLOUD

School Tenants



Real-Time Control

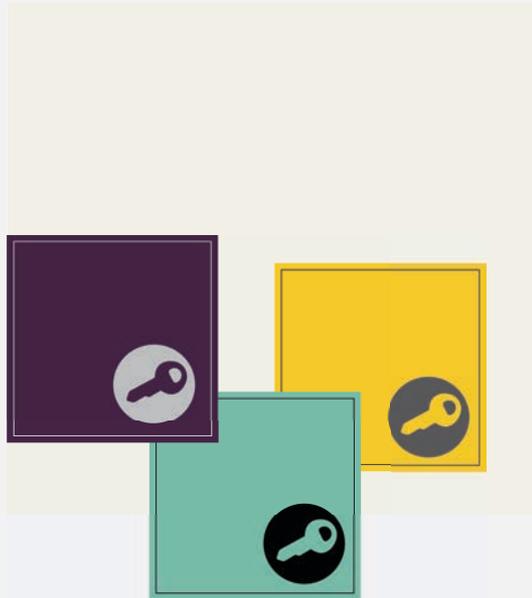
Student Data

Content Sync

- Hybrid Client for Tablets
- Fully Offline
- Rich Web App for Laptops

- Open Infrastructure
- API's to external systems
- Pluggable e-Widgets and e-Interactions

Data and Programs | 3 Types of Integration



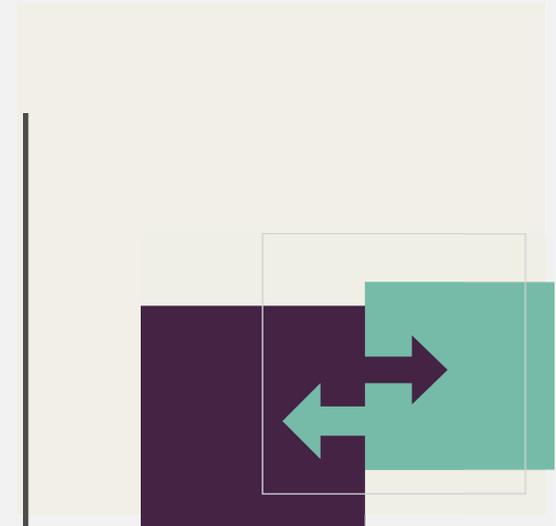
Sign-On/ Shared Rostering

Single-sign-on and account provisioning to many apps



Curriculum

Access to digital resources in the Core Four subject areas

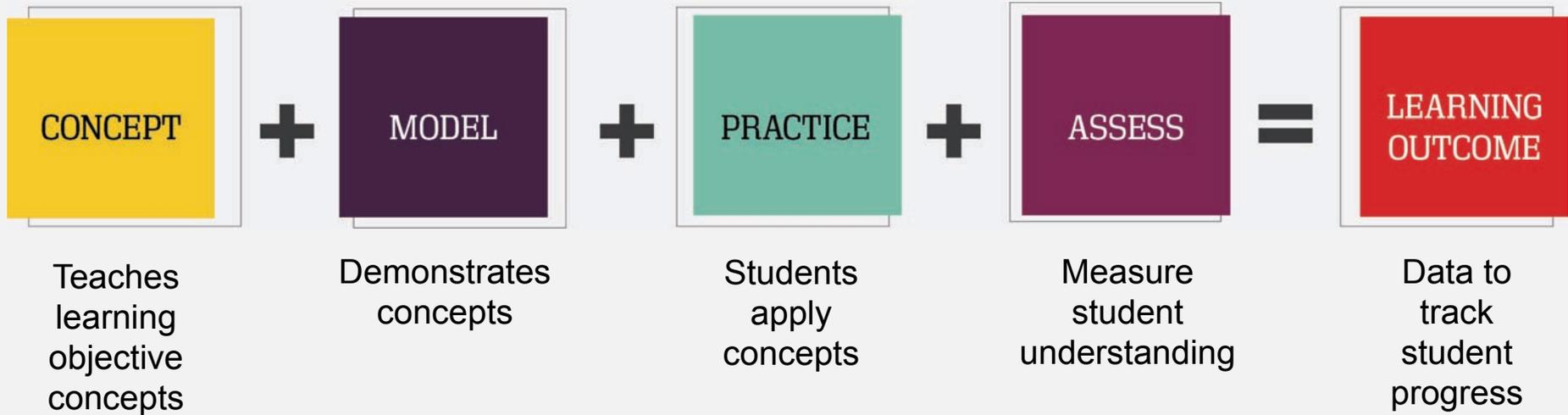


Shared Data

Classroom scores, 3rd Party, and State Assessment Data

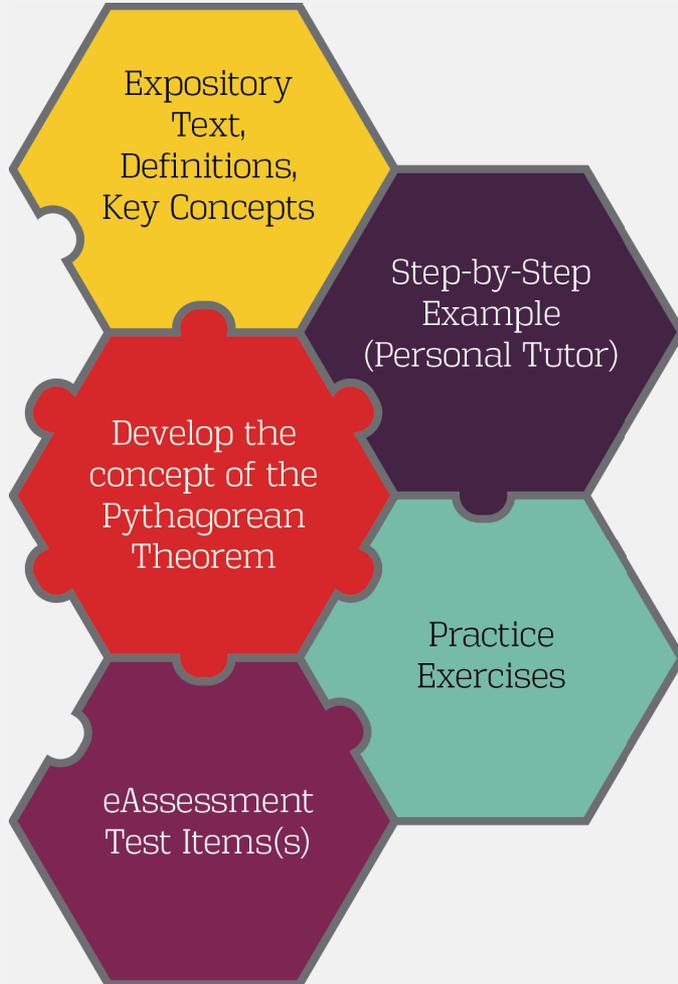
MHE Learning Object

4 Part Pedagogical Structure

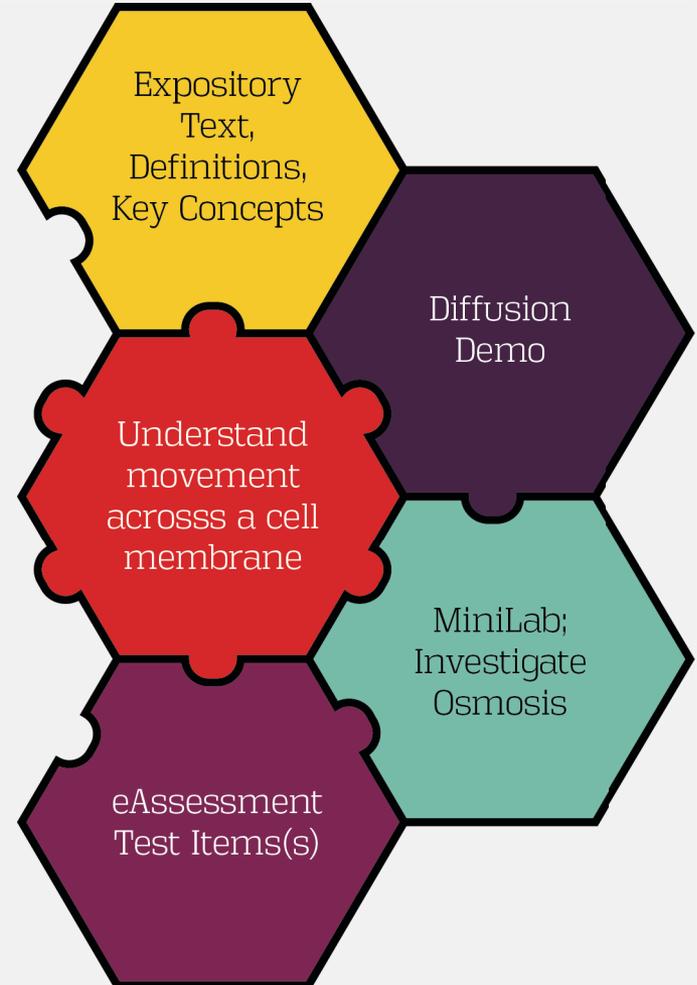


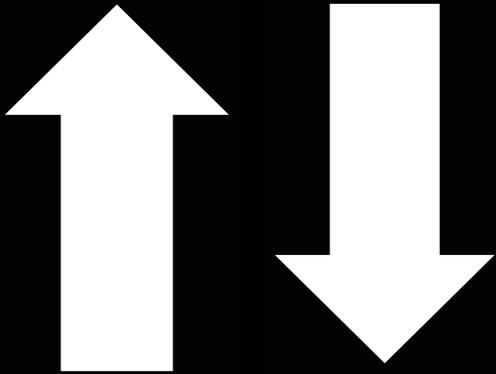
Examples

MATH



SCIENCE





**Proven Results Reduce
Risks**



Utah Aleks
Proven
Results

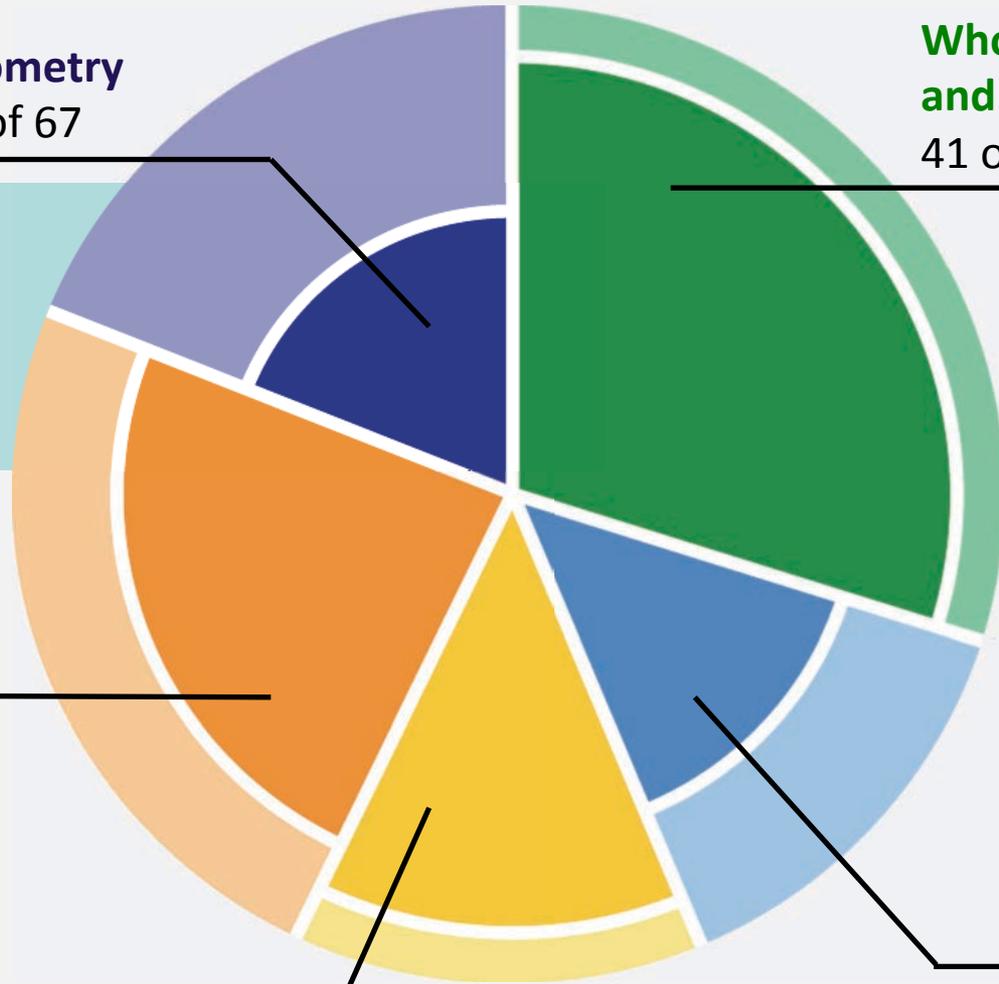
Geometry
24 of 67

**Whole Numbers
and Integers**
41 of 44

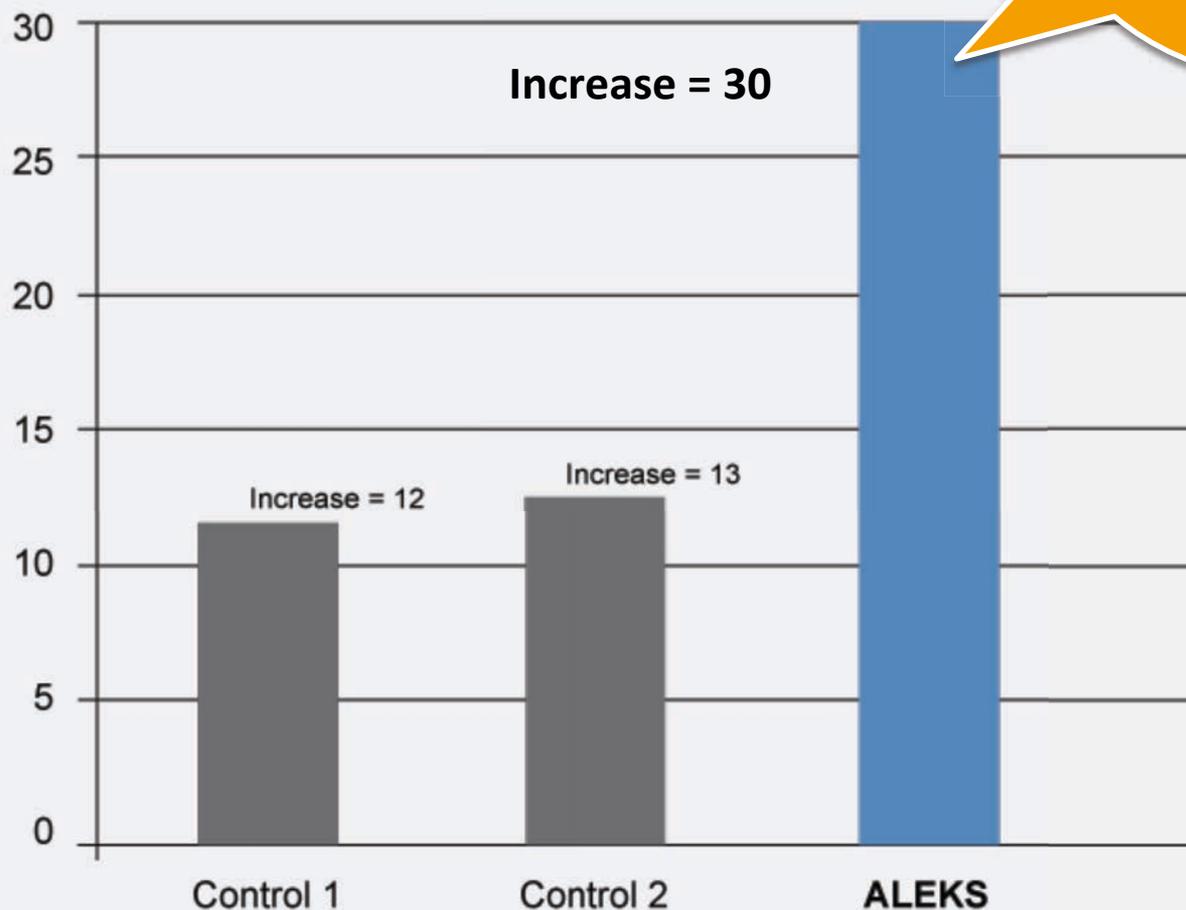
Rational Numbers
44 of 56

**Functions
and Graphs**
5 of 29

**Variable Expressions
and Equations**
13 of 38



ALEKS Proven Results



Number of
Commended
Students
**More Than
Doubled**

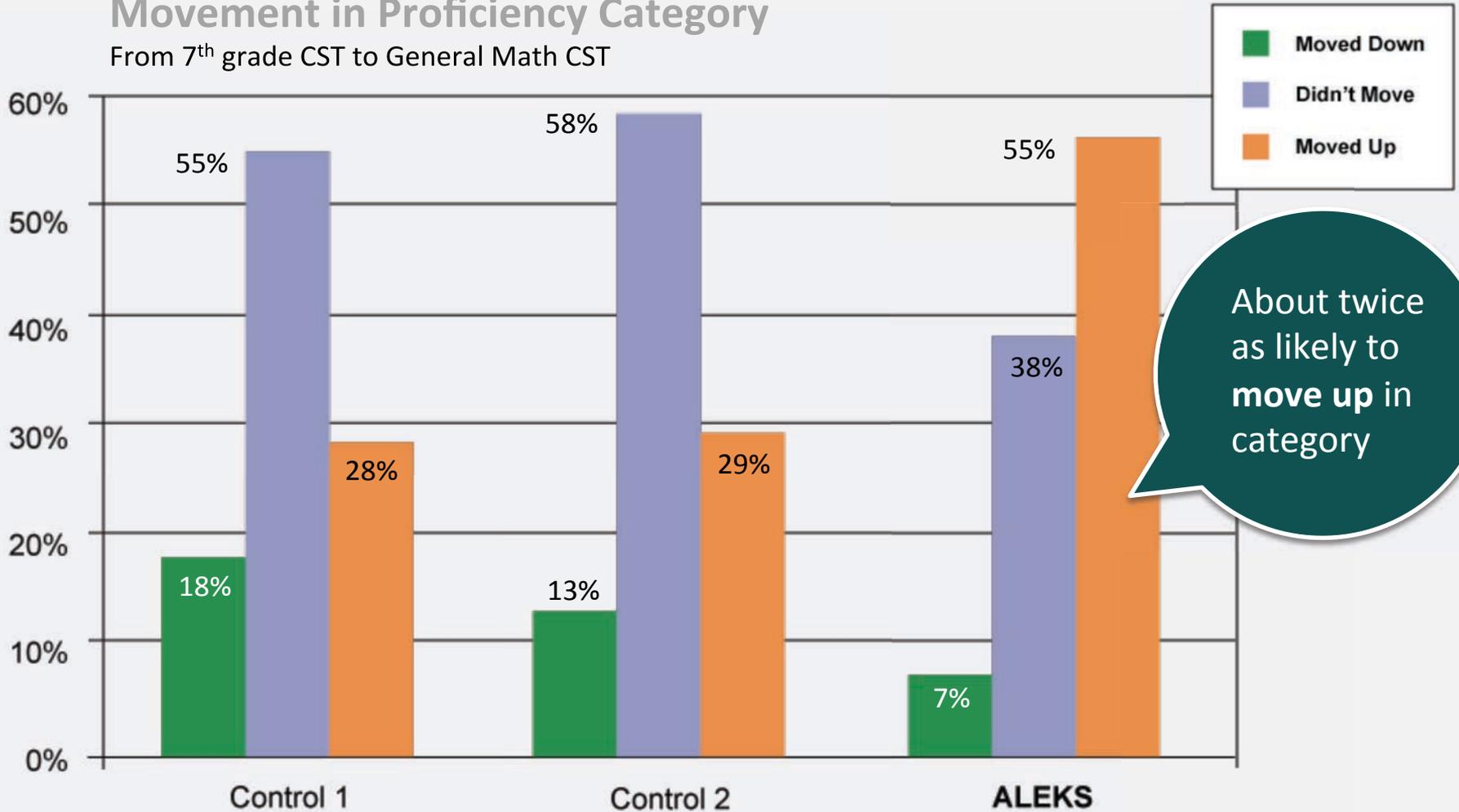
Increase
in mean
CST Score

From 7th grade CST to
General Math CST

ALEKS Proven Results

Movement in Proficiency Category

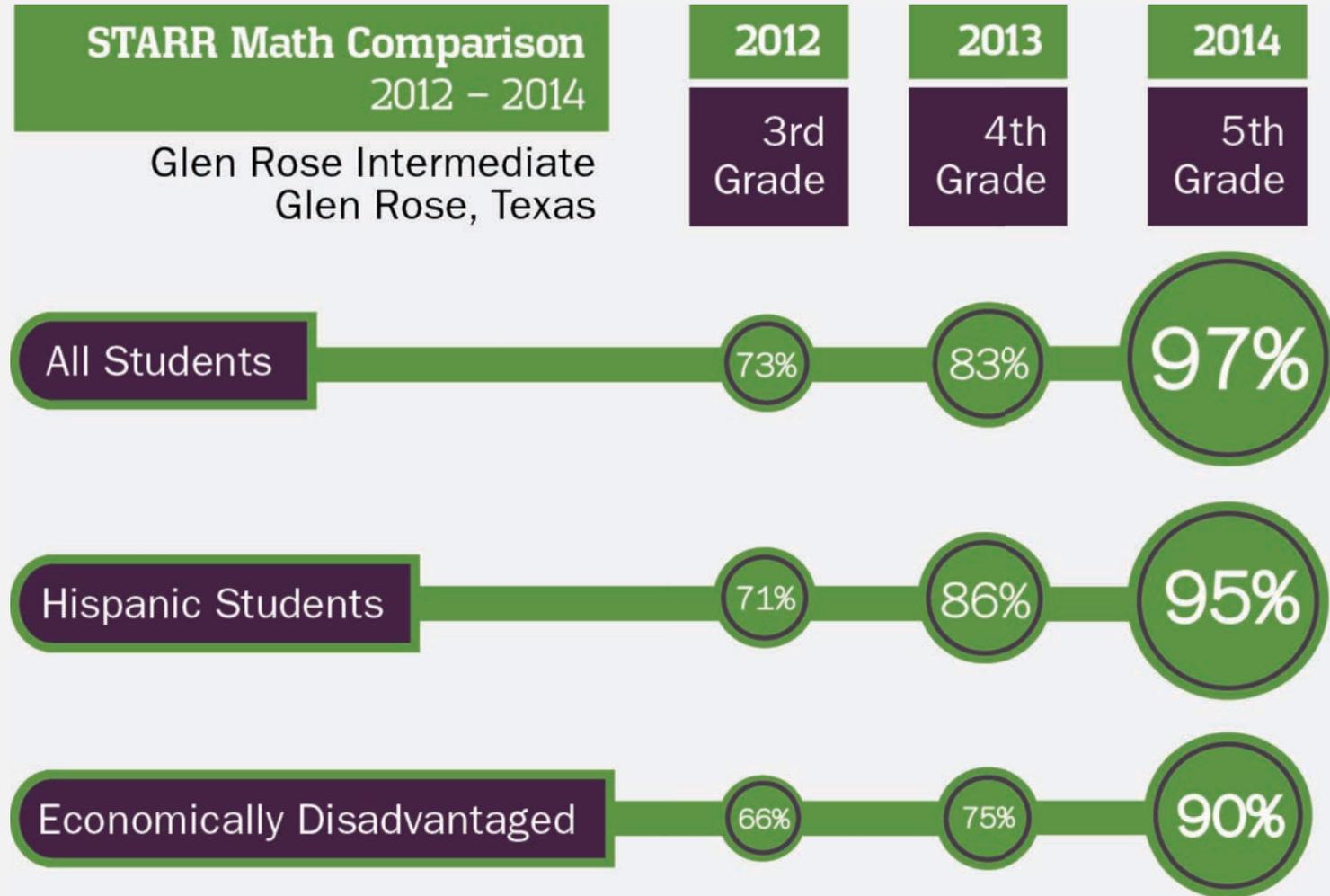
From 7th grade CST to General Math CST



About twice as likely to **move up** in category

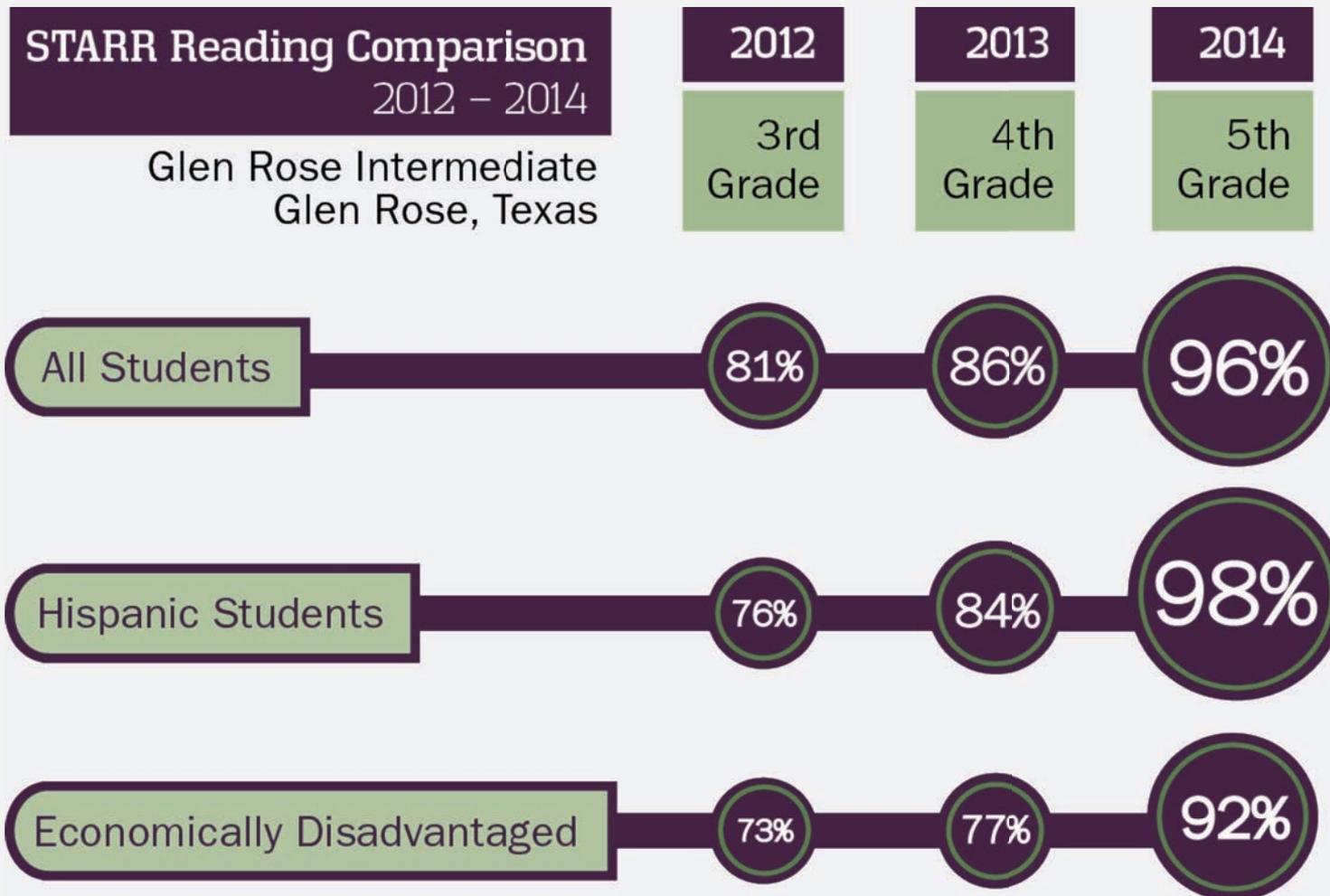
Time To Know Proven Results

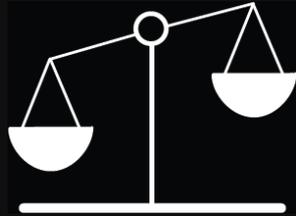
STAAR Math Comparison 2012-2014 - Glen Rose Intermediate,
Glen Rose ISD, TX



Time To Know Proven Results

STAAR Reading Comparison 2012-2014 - Glen Rose Intermediate,
Glen Rose ISD, TX





Understand
Total Cost of Ownership
(TCO)

Understand TCO

Total Cost of Ownership



Indirect
Labor

Unnecessary
Processes

Content
Creation

Project
Management

Reteaching



Utah Funding Comparison

	Low Range	High Range		
Annualized Funding Per Student	UT State Maine Analysis Summary	UT State Maine Analysis Summary	Project Red	Wasatch County
<i>Total Years Proposed</i>	4	4	5	
Digital Learning Environment	\$	\$	\$128.00	\$128.00
<i>Software, Digital Curriculum, Assessment, Integrated Data Systems & Analytics Reporting</i>			128.00	128.00
Digital Teaching Practices	\$8.90	\$34.46	\$63.00	\$129.00
<i>Professional Development</i>	8.90	34.46	63.00	129.00
Digital Change Management	\$	\$	\$	\$15
<i>Digital Conversion Planning & Project Management</i>				15.00
Digital Access	\$57.72	\$128.93	\$402.00	\$377.00
<i>IT Infrastructure and Capacity</i>	9.40	15.09	72.00	36.00
<i>Student and Teacher Devices</i>	143.00	314.00	255.00	250.00
<i>Technical Support</i>	10.87	31.32	75.00	55.00
Total Annualized Funding Per Student	\$172.17	\$394.87	\$593.00	\$613.00

Thoughts on Utah's Proposed Program

- Ensure comprehensive, coherent and integrated LEA Plans
- Account for Top 10 Lessons Learned
- Effective sequencing - (1) Plan; (2) Sufficient bandwidth; (3) Implement Digital Learning Environment; (4) Initiate Teacher PD; (5) Implement devices
- Accelerated student learning is the top measure of success
- Research to replicate successes and address weaknesses
- Select a qualified Program Consultant & Advisory Committee
- “Open & Modular” is key





THANK YOU