

Florida Department of Education Value-added Model (VAM)

FY2012

Using Student Growth in Teacher and
School Based Administrator Evaluations



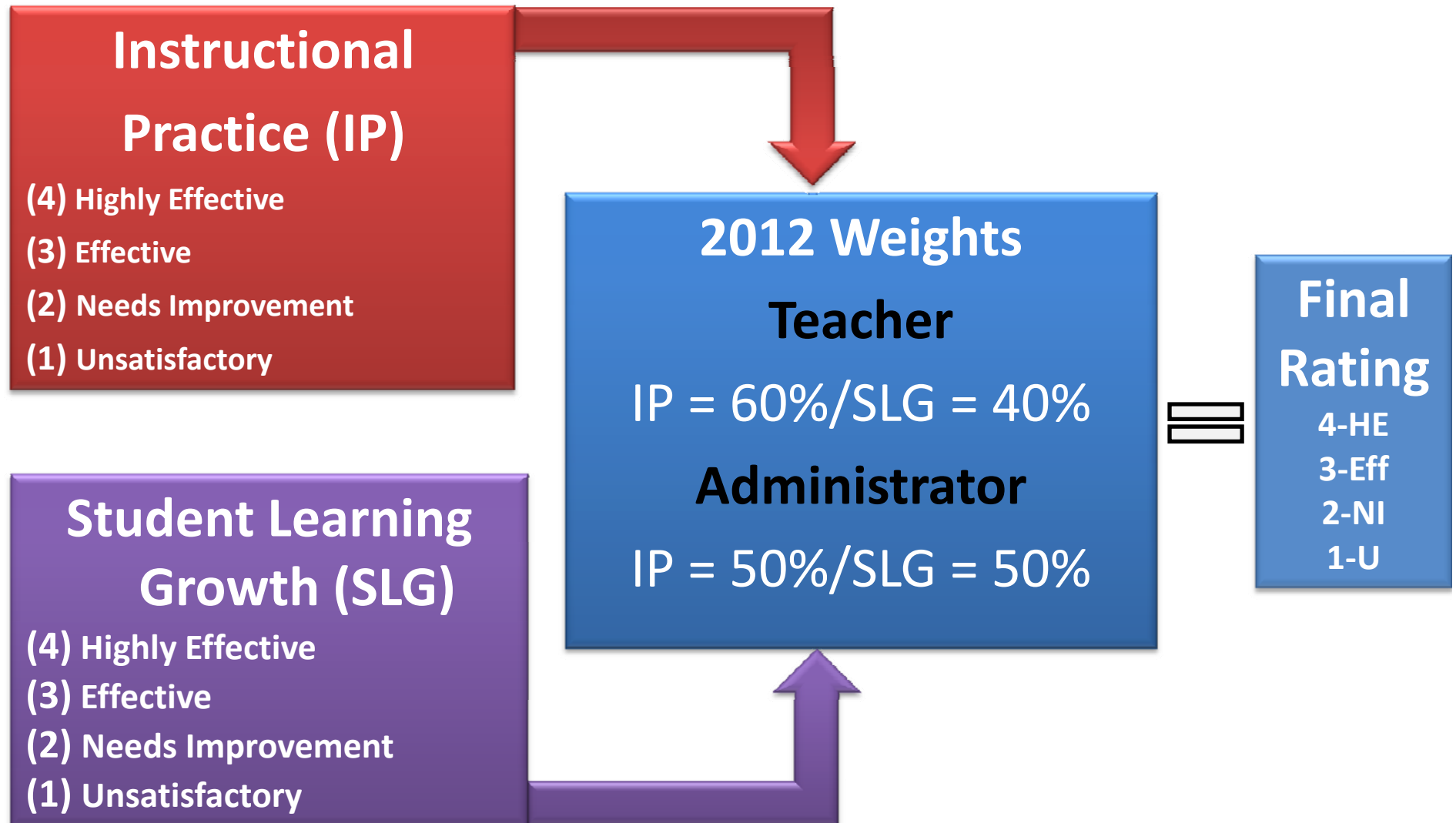
HOW DID WE GET HERE?

- **Established by Student Success Act (SB 736)**
Educator Evaluation System
<http://www.flsenate.gov/Committees/BillSummaries/2011/html/0736ED>
- **Teacher and School Administrator Evaluations**
 - Professional Practice
 - Student Learning Growth
- **FLDOE Student Growth Implementation Committee (SGIC)**
<http://www.fldoe.org/committees/sg.asp>



Established by Student Success Act (SB 736)

Teacher Evaluation System



FY2012 Implementation

- Required by law
- First time used in evaluations
- Based only on FCAT 2.0 Reading/Math
- No Algebra 1 EOC student growth scores
- **No teacher or school administrator will receive a student growth rating less than *Effective***

IMPORTANT!

It is important to note that measures used in the Florida School Grading system, **student proficiency** and **learning gains**, are not a part of the Florida Value-added Model of student learning growth.

Student learning growth is based on the actual scale score on FCAT 2.0 tests. Even if students already score in Achievement Levels 3-5, they still have **room to grow**.

Growth vs. Proficiency



Growth vs. Proficiency

Growth (Progress)

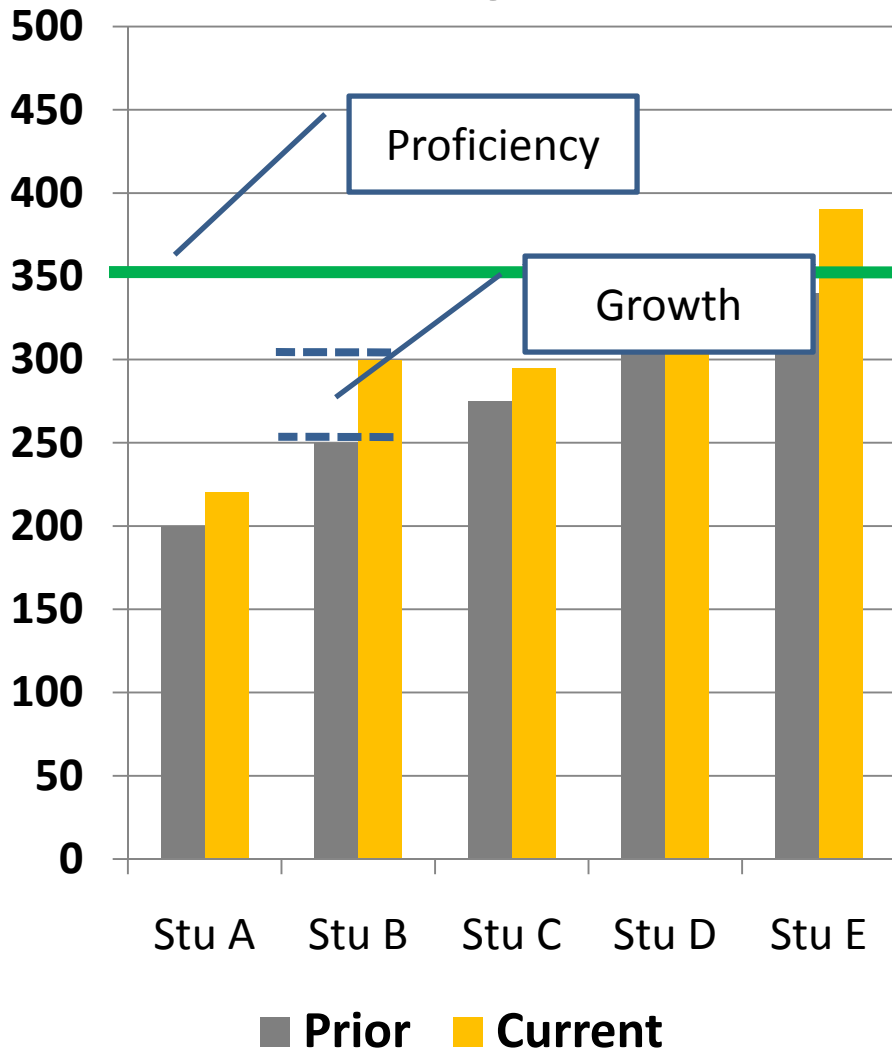
Growth models measure the amount of academic progress students make between two points in time

Proficiency (Status)

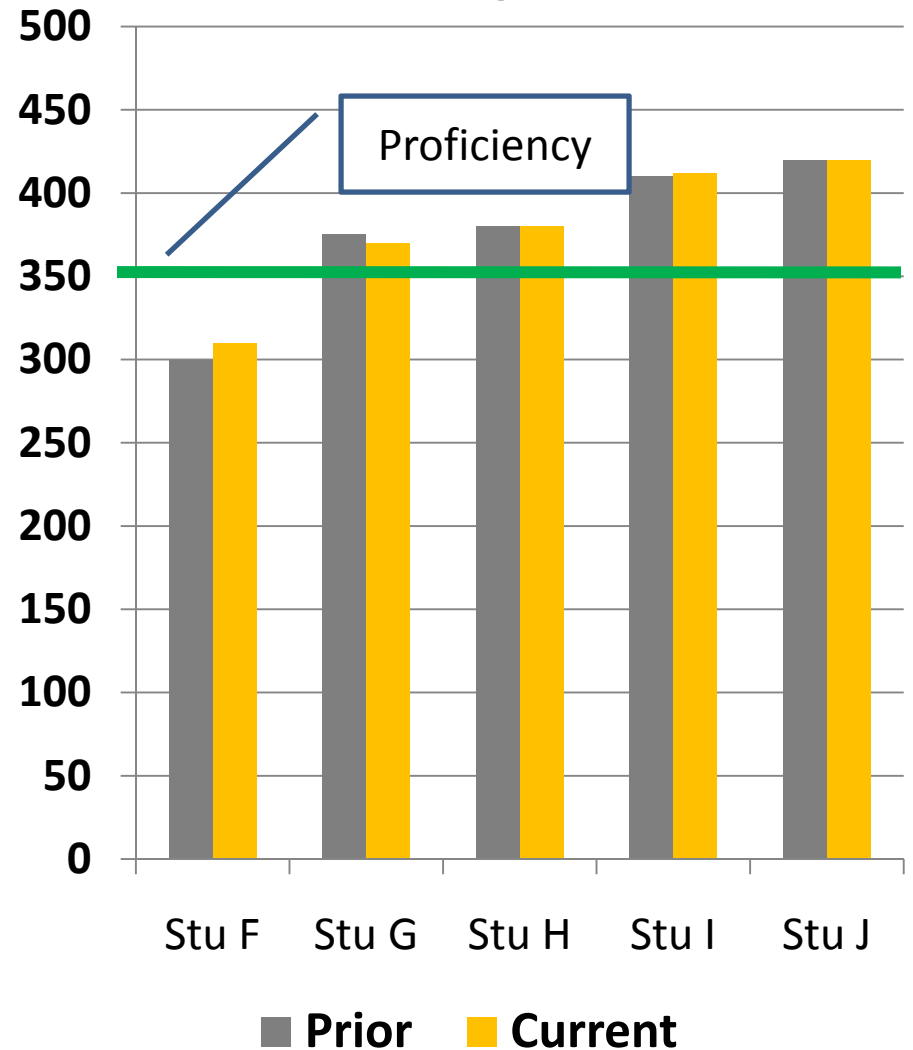
A method for measuring how students perform at one point in time

Growth vs. Proficiency

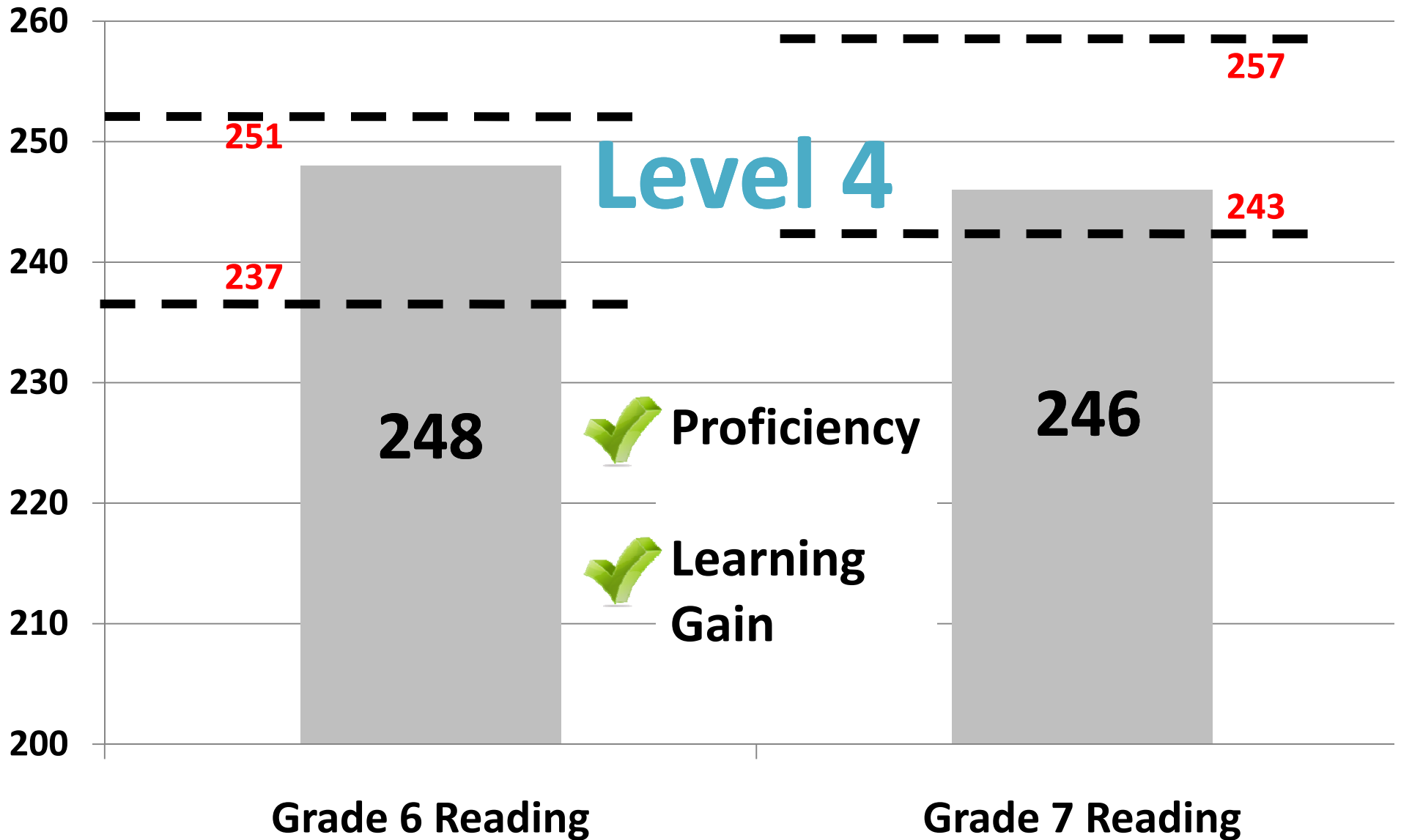
TEACHER 1



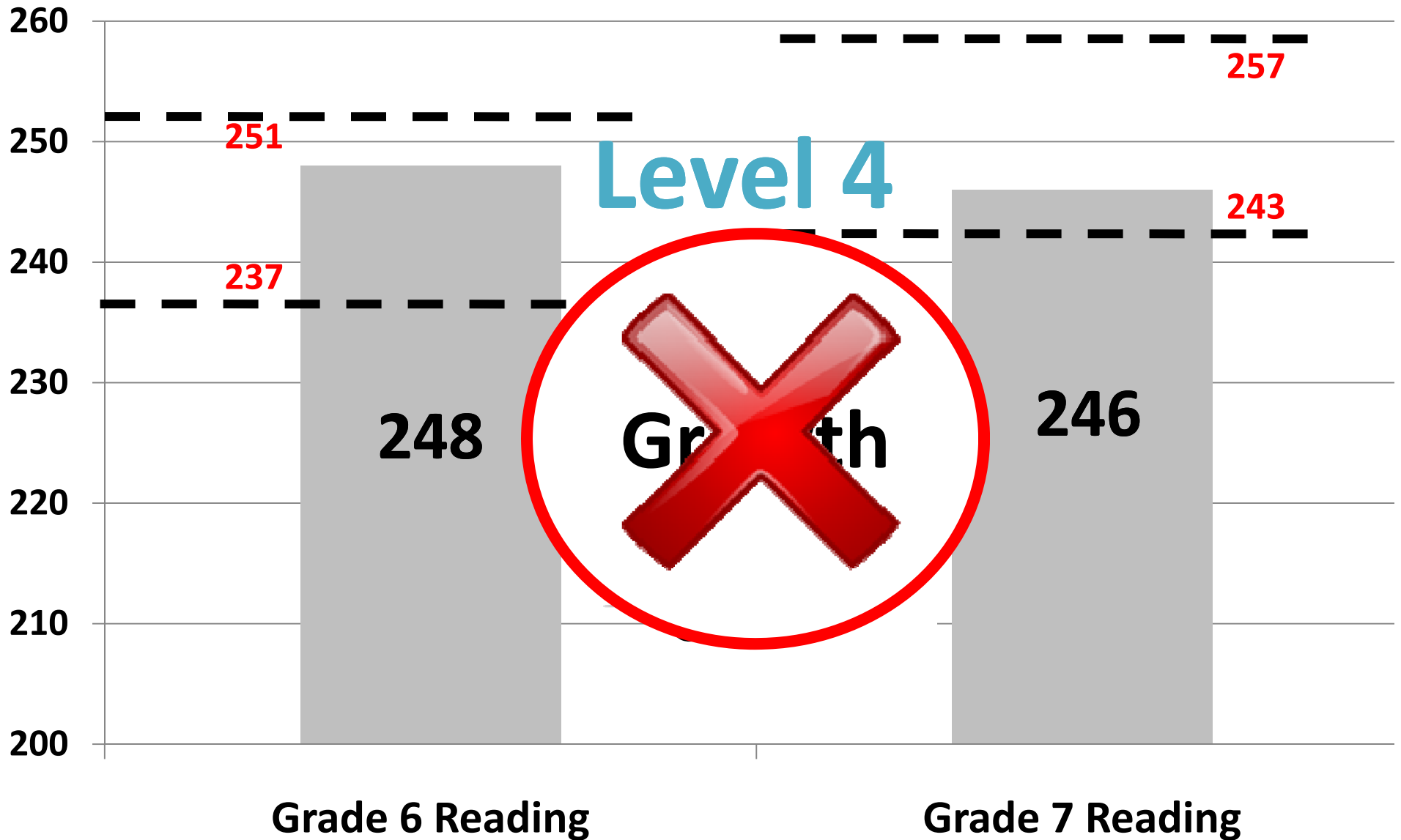
TEACHER 2



Growth vs. Learning Gains



Growth vs. Learning Gains



A More Complete Picture of Student Learning

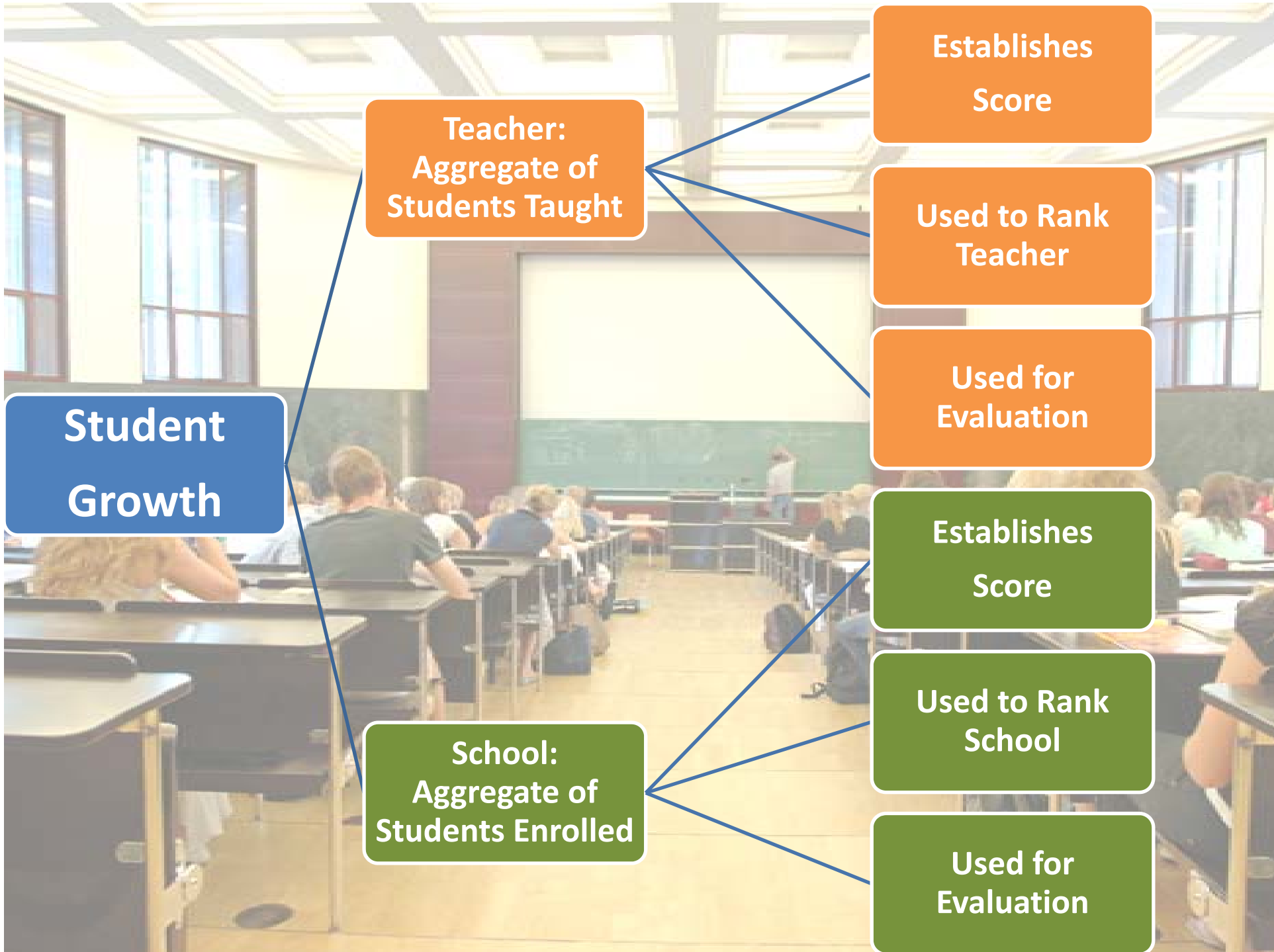
Growth

- > Compare student to own prior performance
- > Consider student characteristics
- > Progress between points
- > Critical to student success

&

Proficiency

- > Compare student to a standard
- > Does not consider student characteristics
- > Performance at a point in time
- > Critical to postsecondary opportunity



Student Growth

**Teacher:
Aggregate of
Students Taught**

**Establishes
Score**

**Used to Rank
Teacher**

**Used for
Evaluation**

**School:
Aggregate of
Students Enrolled**

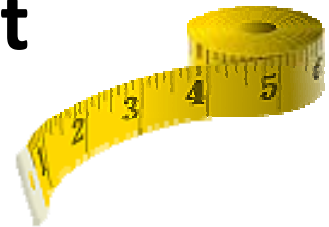
**Establishes
Score**

**Used to Rank
School**

**Used for
Evaluation**

VAM & Student Learning Growth

- Contribution to a change in a student's achievement on standardized test
- Calculated from a measure of student learning growth over time



$$y_{t,t} = \mathbf{X}_t \boldsymbol{\beta} + \sum_{r=1}^L y_{t-r,t} \gamma_{t-r} + \sum_{q=1}^Q \mathbf{z}_{qt} \boldsymbol{\theta}_q + e_t$$

What is the Student Learning Growth Score?

The difference between
Current test score and
Predicted test score

What is the Predicted Student Score?

What is the Predicted Student Score?

Student **score expected**
based on **prior tests** and
other characteristics

FLDOE Value-Added Model

Variables determining predicted score

**OTHER
CHARACTERISTICS?**

FLDOE Value-Added Model

Variables determining predicted score

- **Two or more years of prior achievement scores**
- **Gifted status**
- **Class size**
- **Student Attendance (Days)**
- **Mobility (number of transitions)**
- **Difference from modal age in grade (indicator of retention)**
- **The number of subject-relevant courses in which the student is enrolled**
- **Homogeneity of entering test scores in the class**

FLDOE Value-Added Model

Variables determining predicted score

- **Students with Disabilities (SWD) status**

- Language impaired
- Hearing impaired
- Visually impaired
- Emotional/behavioral
- Specific learning disability
- Dual sensory impaired
- Autism spectrum disorder
- Traumatic brain injury
- Other health impaired
- Intellectual disability



- **English Language Learner (ELL) status**

- LY

FLDOE Value-Added Model

**Student Success Act specifically
excludes these student characteristics**

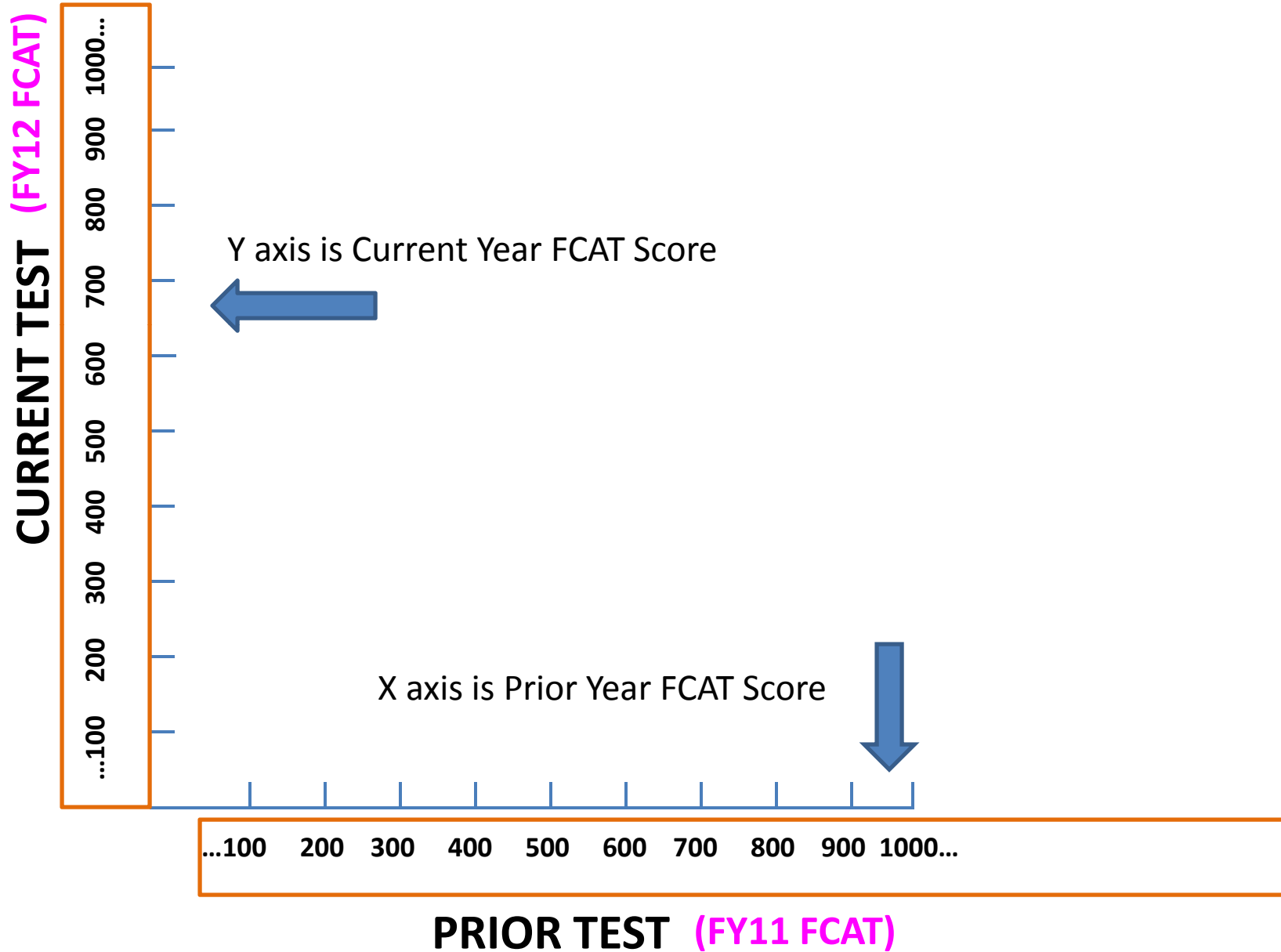
- **Gender**
- **Race**
- **Ethnicity**
- **Socioeconomic status**



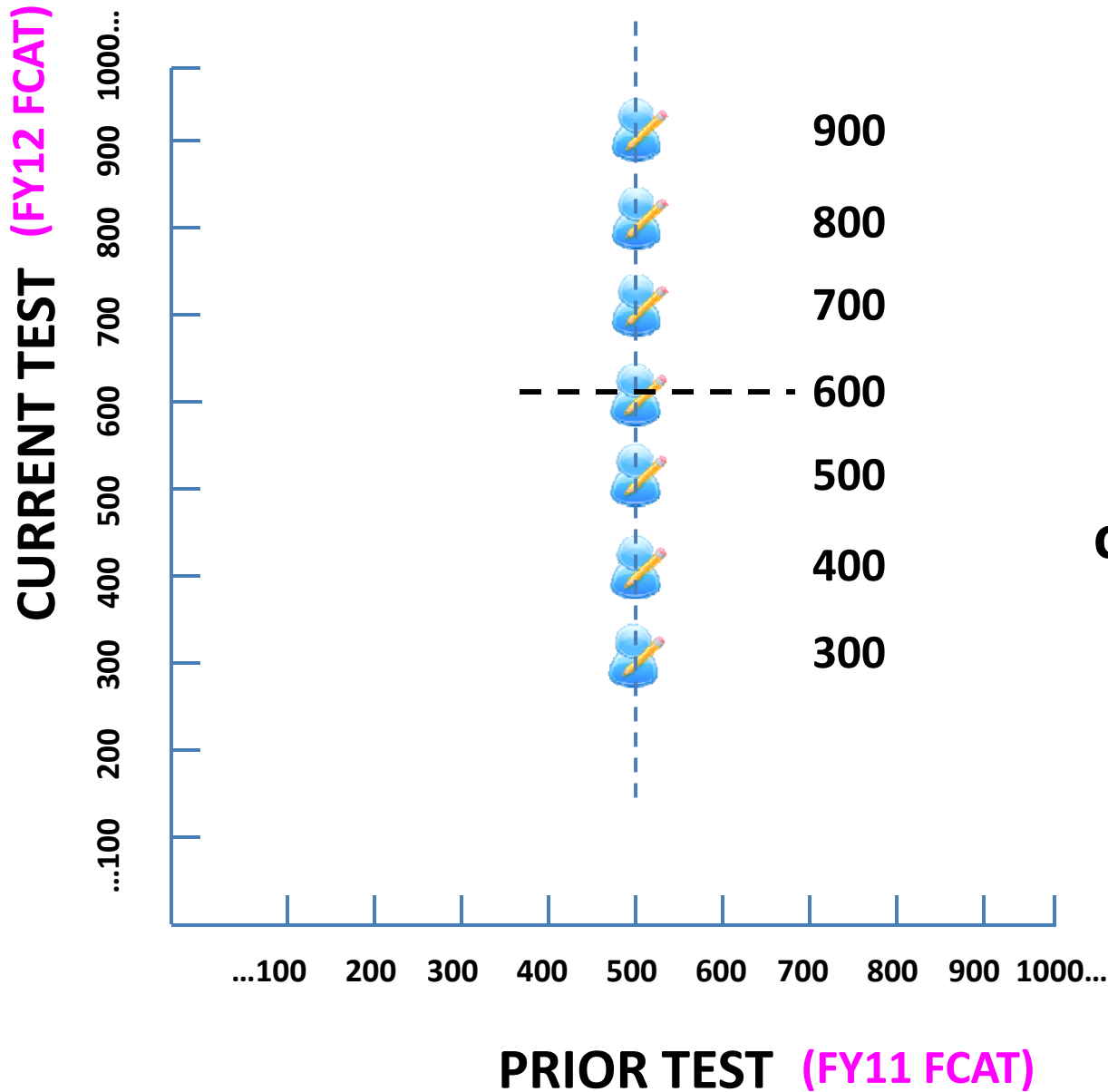
What is the Student Learning Growth Score?

**Let's take a look at
the predicted score**

What is the Predicted Student Score?

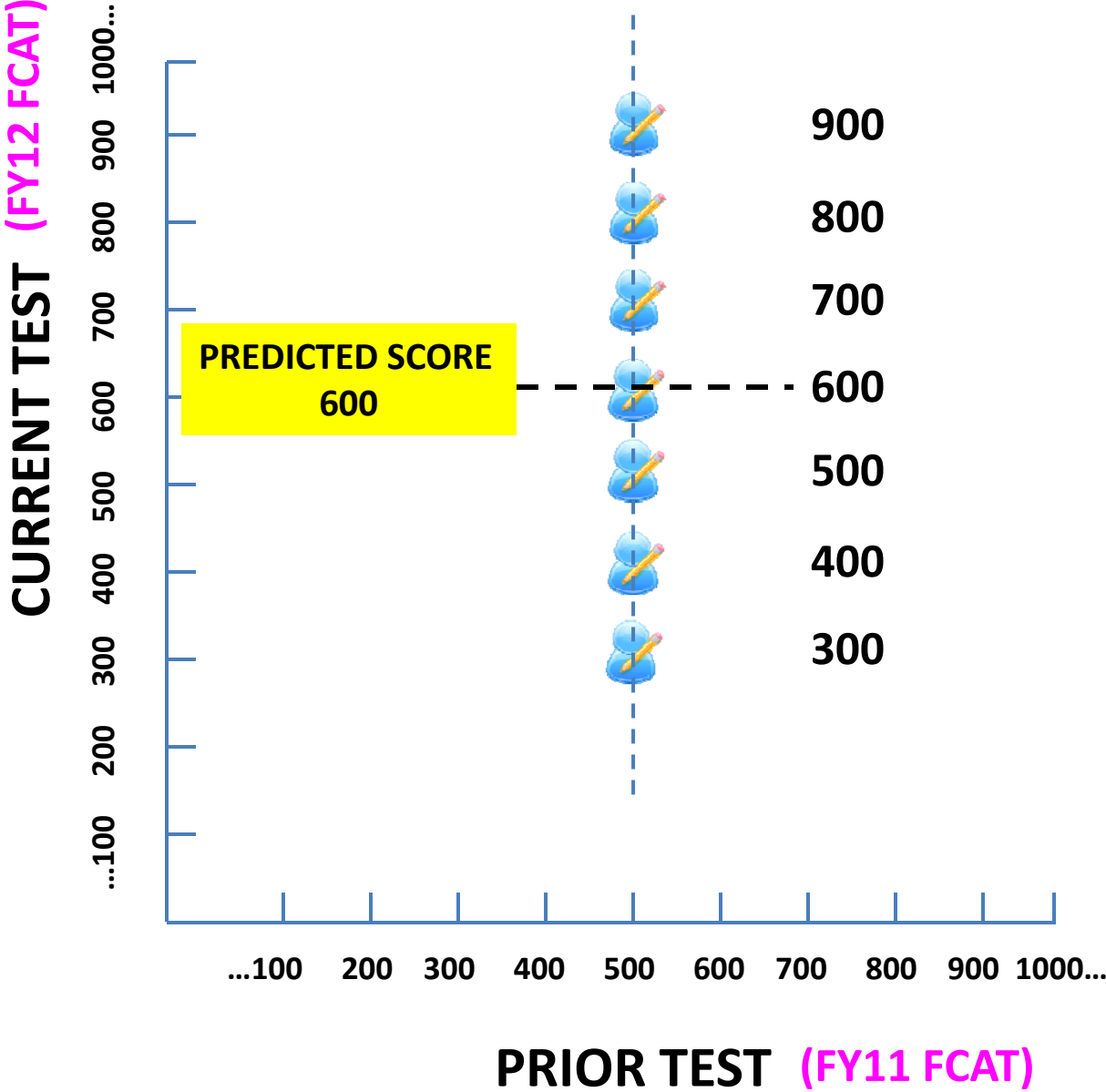


What is the Predicted Student Score?

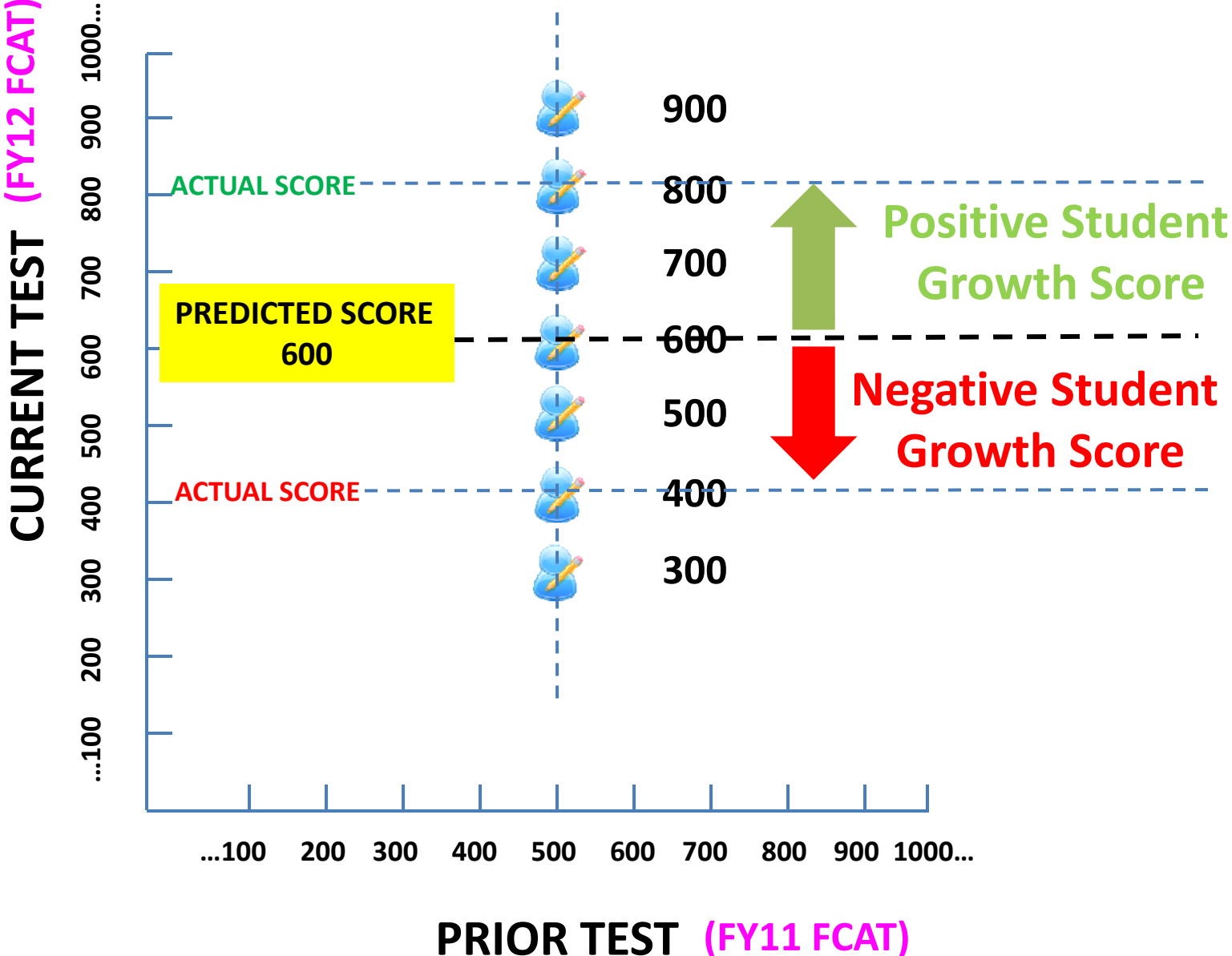


Answer:
Average of
current scores
of similar students

Student Learning Growth is the Amount Above or Below Predicted Score

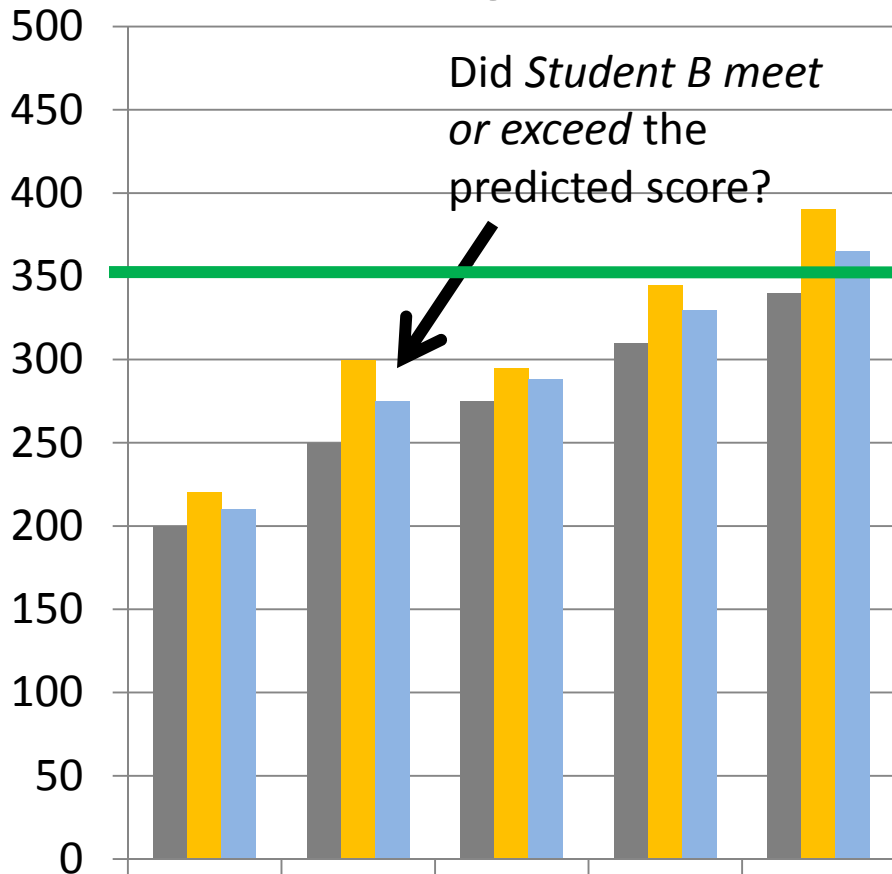


Student Learning Growth is the Amount Above or Below Predicted Score



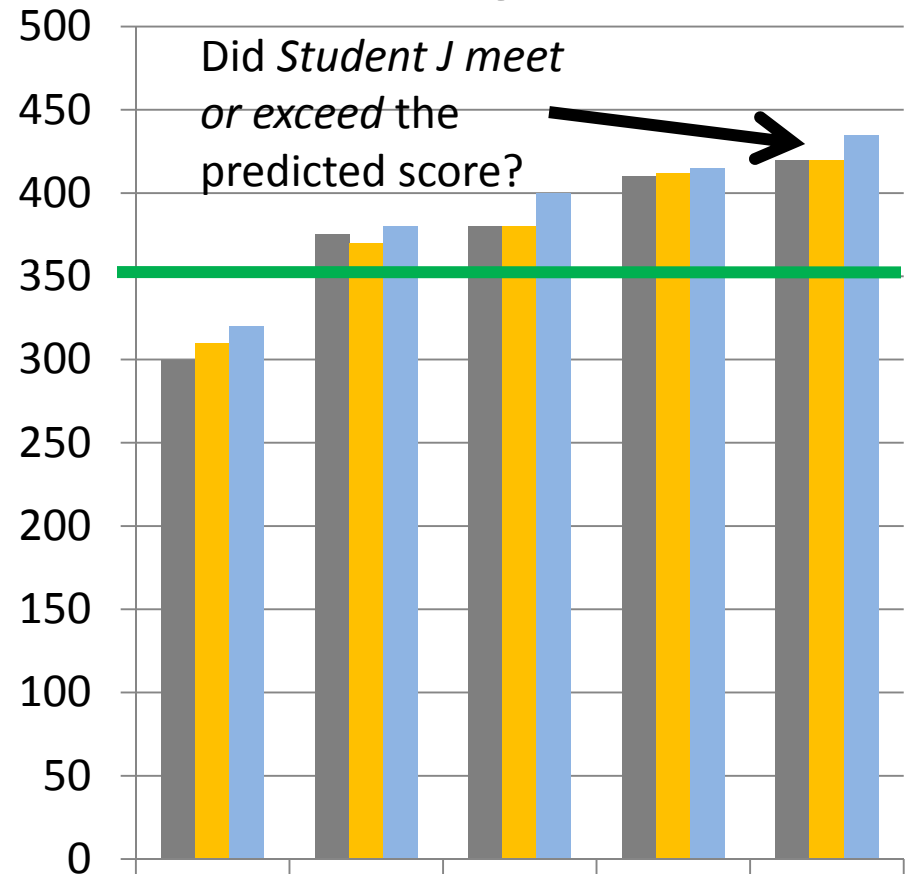
Growth vs. Proficiency

TEACHER 1



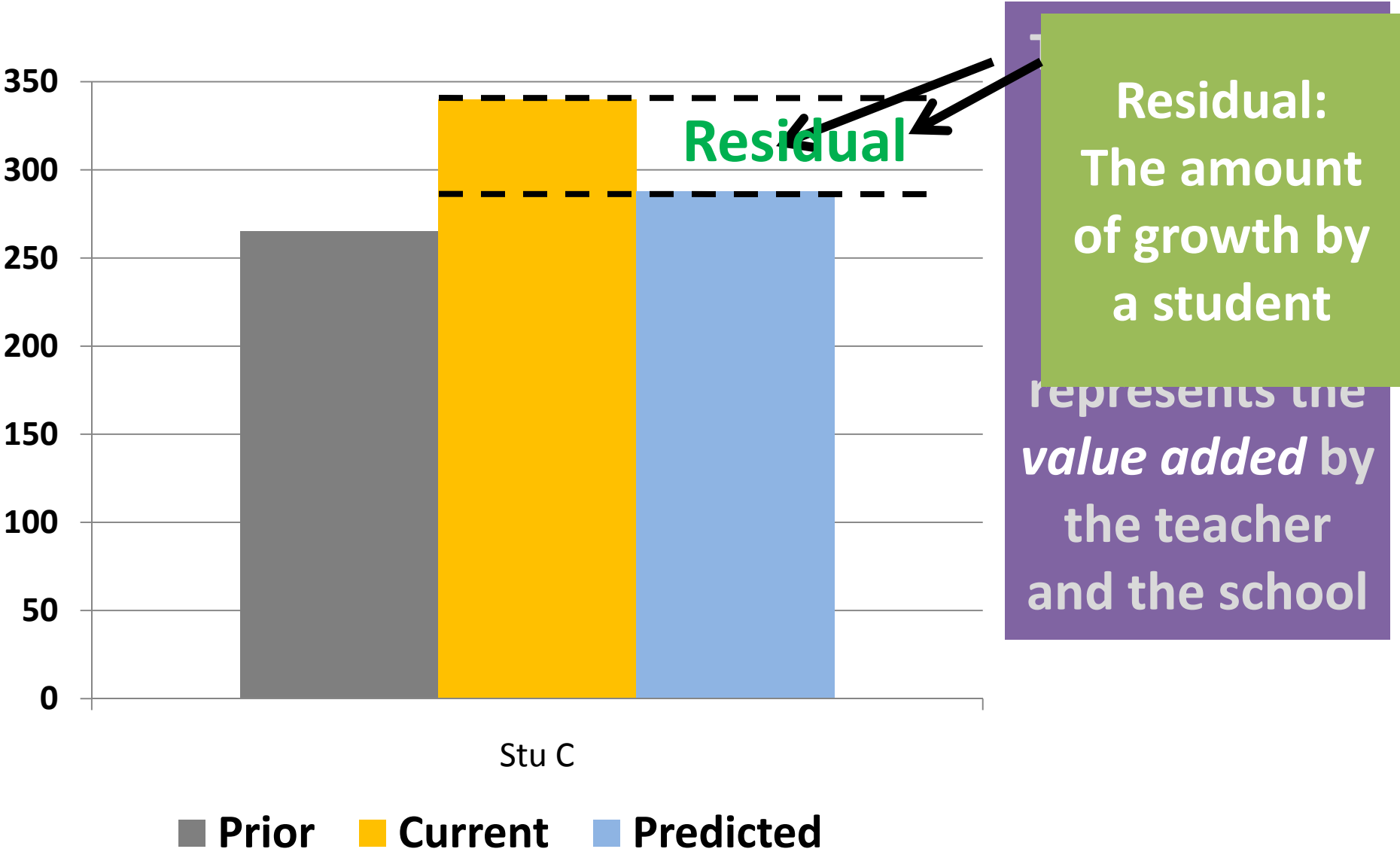
■ Prior ■ Current ■ Predicted

TEACHER 2

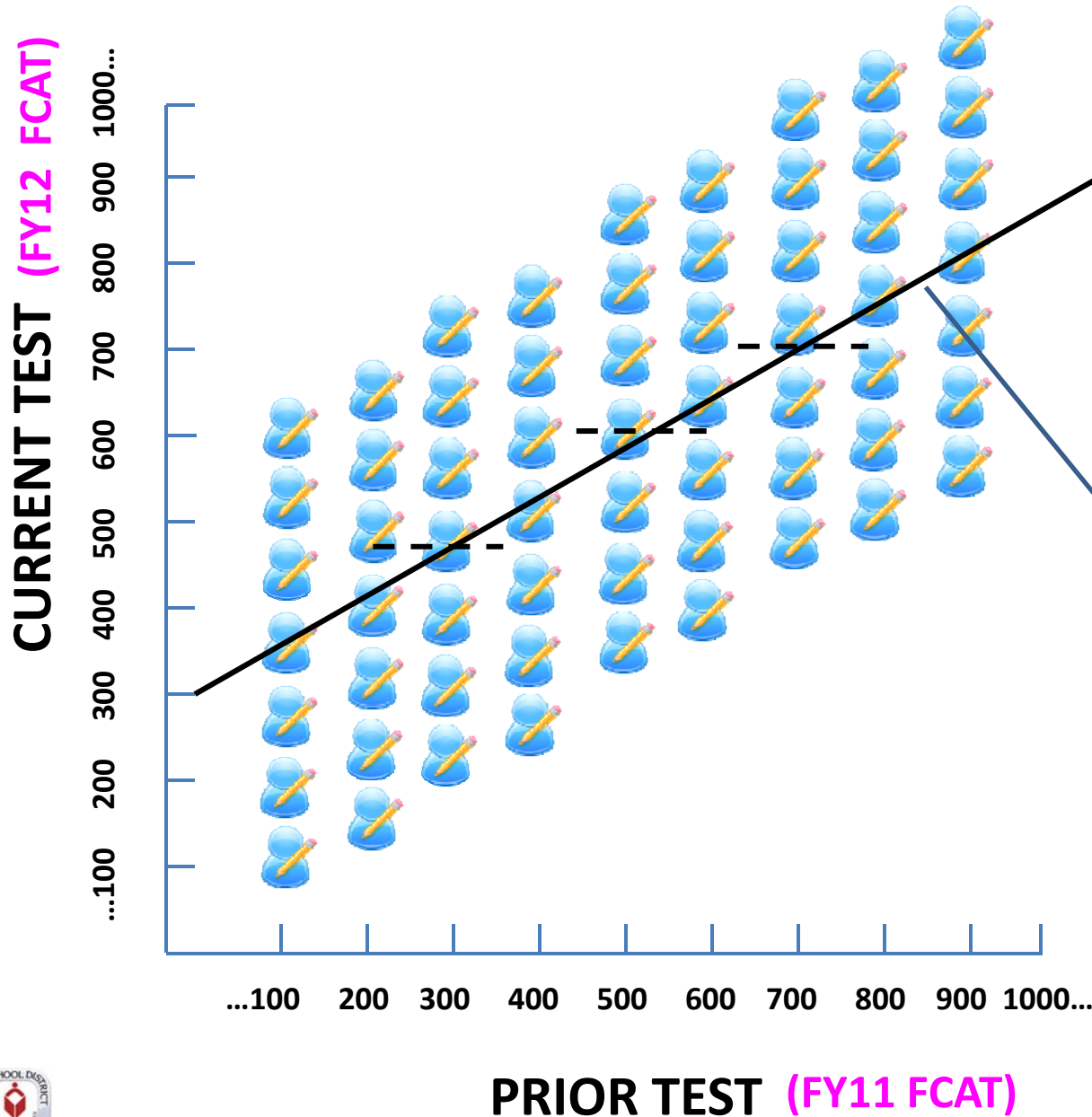


■ Prior ■ Current ■ Predicted

Student Growth



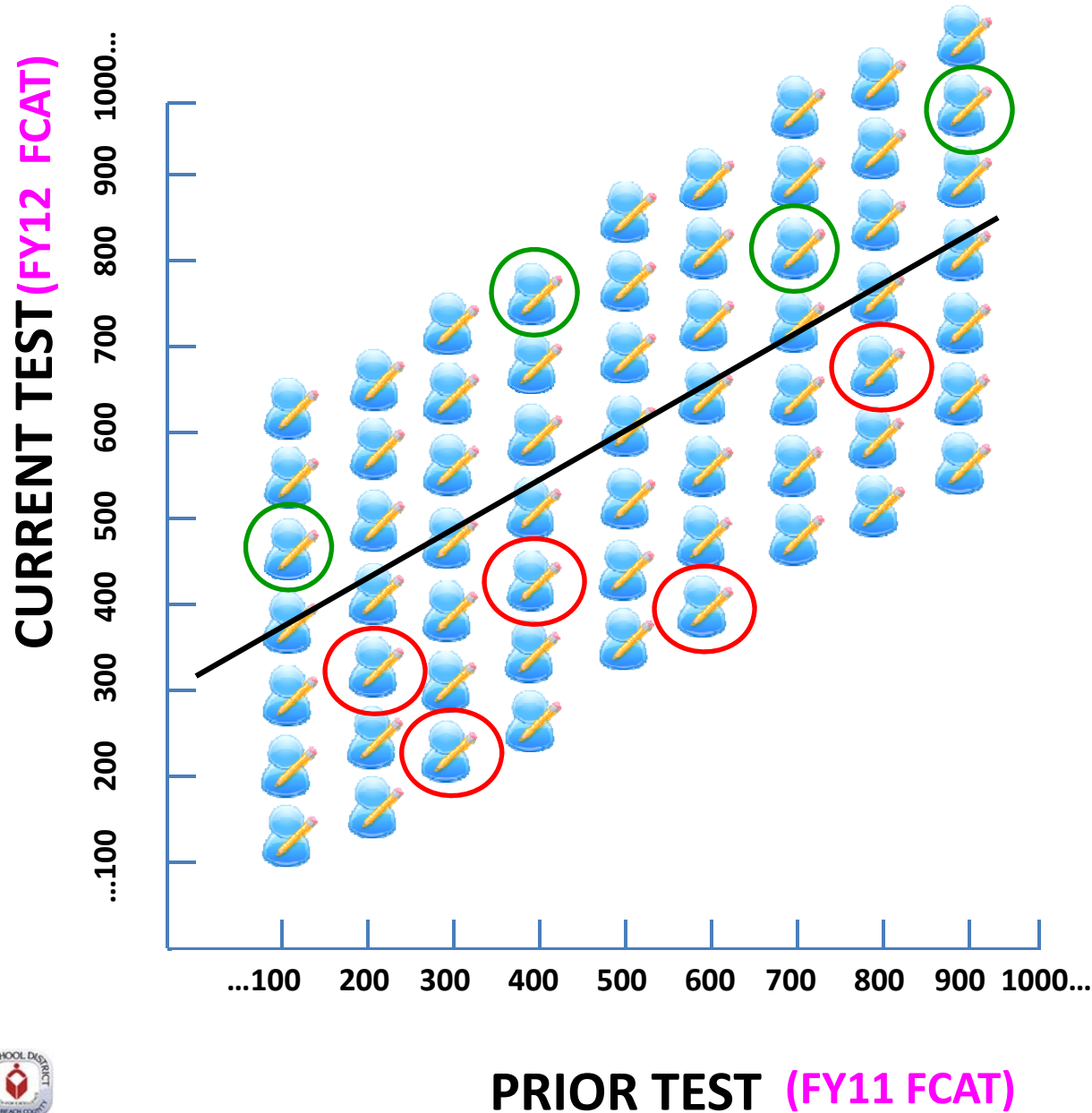
Determining the Student Learning Growth by School



**Example:
All Grade 5
Reading Students
in Florida**

The diagonal line is the predicted growth observed among similar students

Determining the Student Learning Growth by School

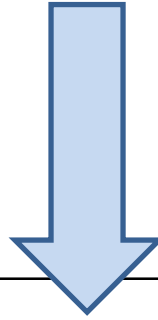


The difference between the predicted and actual scores is the growth.

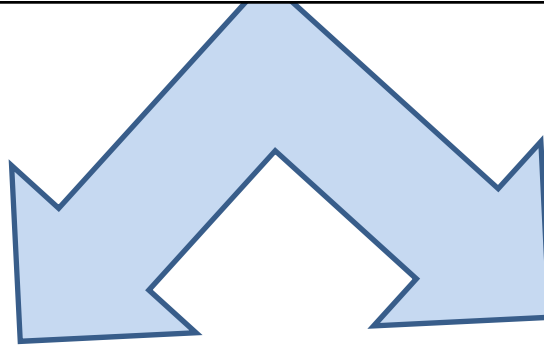
The average of the growth of students within a school produces the school score for a subject/grade.



Student Growth Scores



$$y_{ti} = X_i \beta + \sum_{r=1}^L y_{t-r,i} \gamma_{t-r} + \sum_{q=1}^Q Z_{qi} \theta_q + e_i$$



Teacher VAM

School Component

Student Growth Scores

Teacher/School

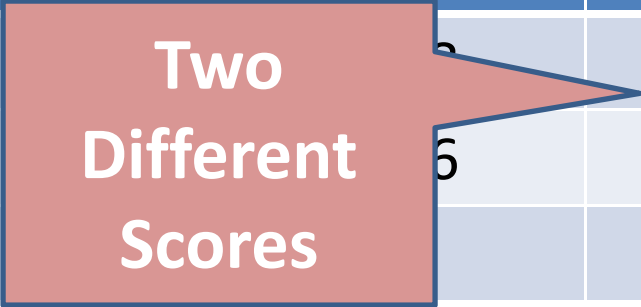
- State calculates scores for each grade and subject *separately*
- Therefore, a teacher/school may have more than one score

Student Growth Scores

Teacher/School

- Teacher of both 9th and 10th grade students

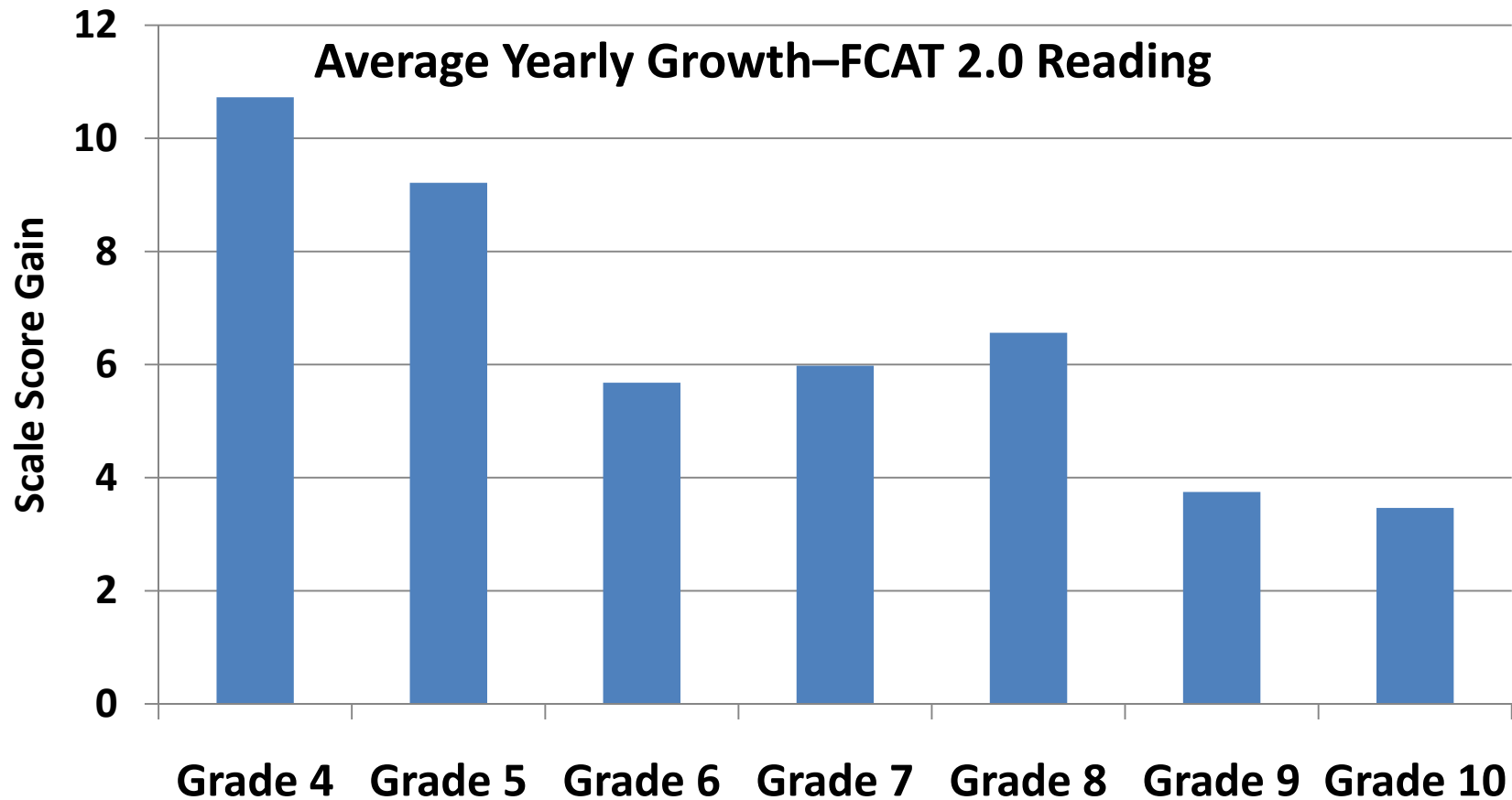
Grade	Subject	Student Count	Teacher VAM
9		9	6.04
10		6	-0.08



Two Different Scores

Comparing Scores

- Comparing scores across subjects/grades
- FCAT 2.0 scale has inconsistencies



Common Score

- State creates scores on common scale
- Example: Jane Doe teaches intensive reading

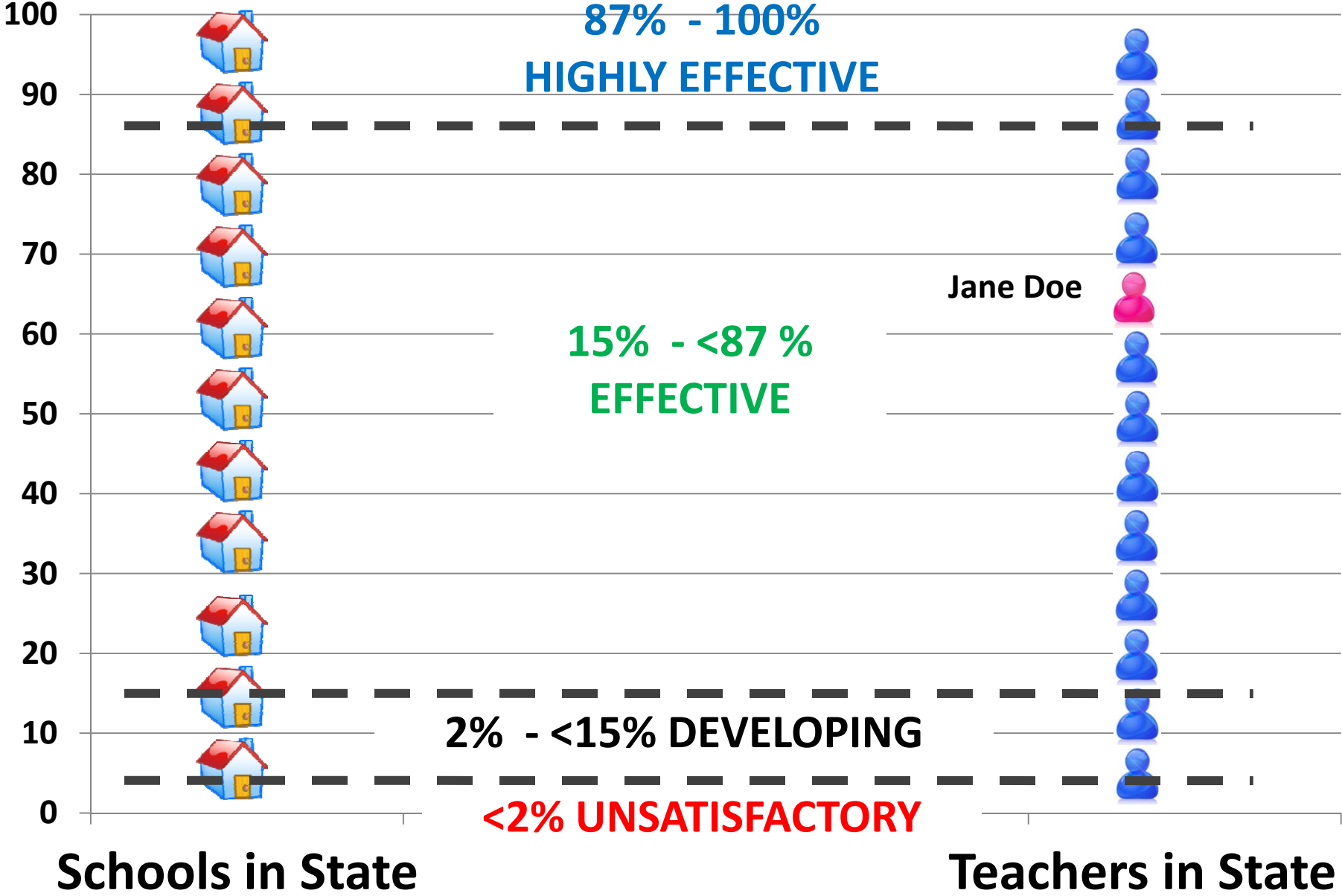
Grade	Subject	Student Count	Teacher VAM	Common Score
9	Reading	18	6.04	1.07
10	Reading	16	-0.08	-0.01

Common Score

- State creates scores on common scale
- Example: Jane Doe teaches intensive reading

Grade	Subject	Student Count	Teacher VAM	Common Score
9	Reading	18	6.04	1.07
10	Reading	16	-0.08	-0.01
	COMMON SCORE			.052

Ranking Scores



Jane Doe: Teacher Example

1. Jane Doe's common score is 0.052
2. This score is ranked among all teachers in the state with a Reading score
3. This gives Jane a **percent rank of 68.48** when compared to all other teachers in the State
4. This percent rank **translates to "Effective"**

Percent Ranks and Ratings

- State generates a percent rank for each teacher, school, district
 - **Reading** score is ranked among all **Reading** scores in the state (Grades 4-10)
 - **Math** score is ranked among all **Math** scores in the state (Grades 4-8, No Algebra)
 - **Reading + Math** score is ranked among **Reading + Math** scores in the state
- Percent ranks are placed on the District Student Growth Rating Scale

District Evaluation System Implementation Plan

- **Teachers**

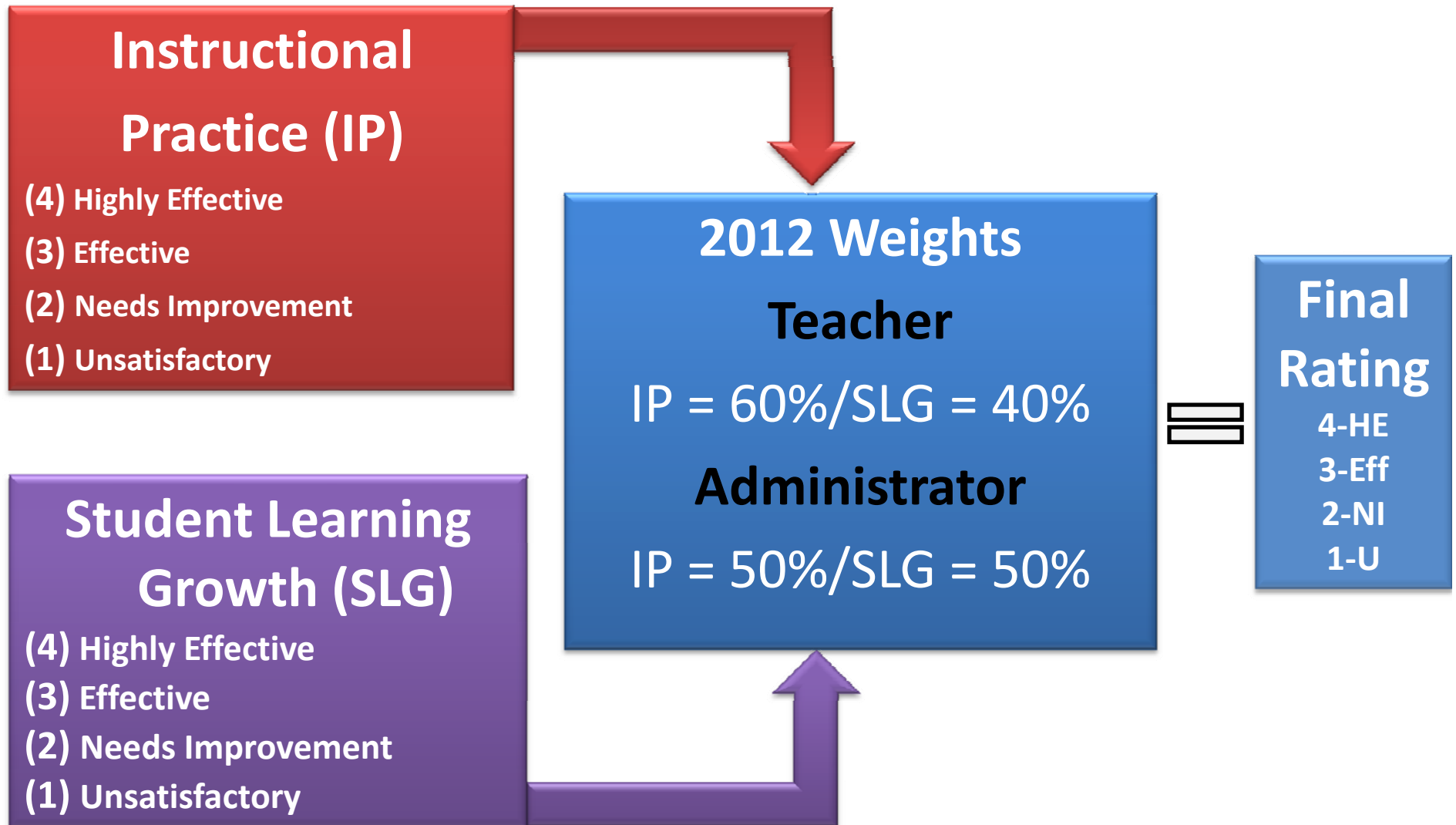
- FCAT Teachers use teacher VAM score for students of grade/subjects taught
- Non-FCAT Teachers use combined reading/math school score
- Teacher assigned to 2 schools, use weighted average of 2 schools combined reading/math scores
- Teacher assigned to more than 2 schools, use District reading/math score combined

- **Administrators**

- Principals & Assistant Principals use combined reading/math school score

Established by Student Success Act (SB 736)

Teacher Evaluation System



Final **Teacher** Evaluation Rating

Student Learning Growth (40%)

1 2 3 4

Instructional
Practice (60%)

1

Hold Harmless

2

3

Hold
Harmless

3

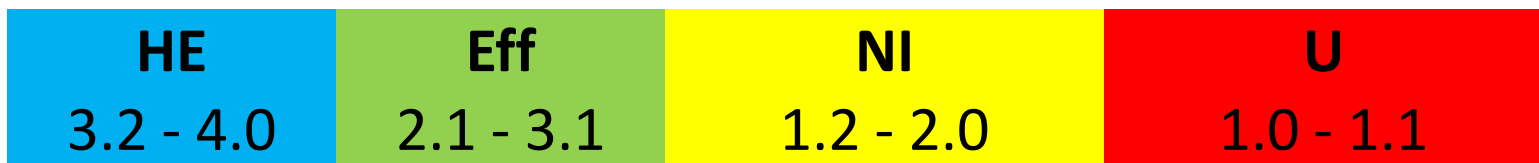
3.4

4

3.6

4

WEIGHTED-AVERAGE



Final **Administrator** Evaluation Rating

Student Learning Growth (50%)

		1	2	3	4
Professional Practice (50%)	1			2	2.5
	2			2.5	3
	3			3	3.5
	4			3.5	4

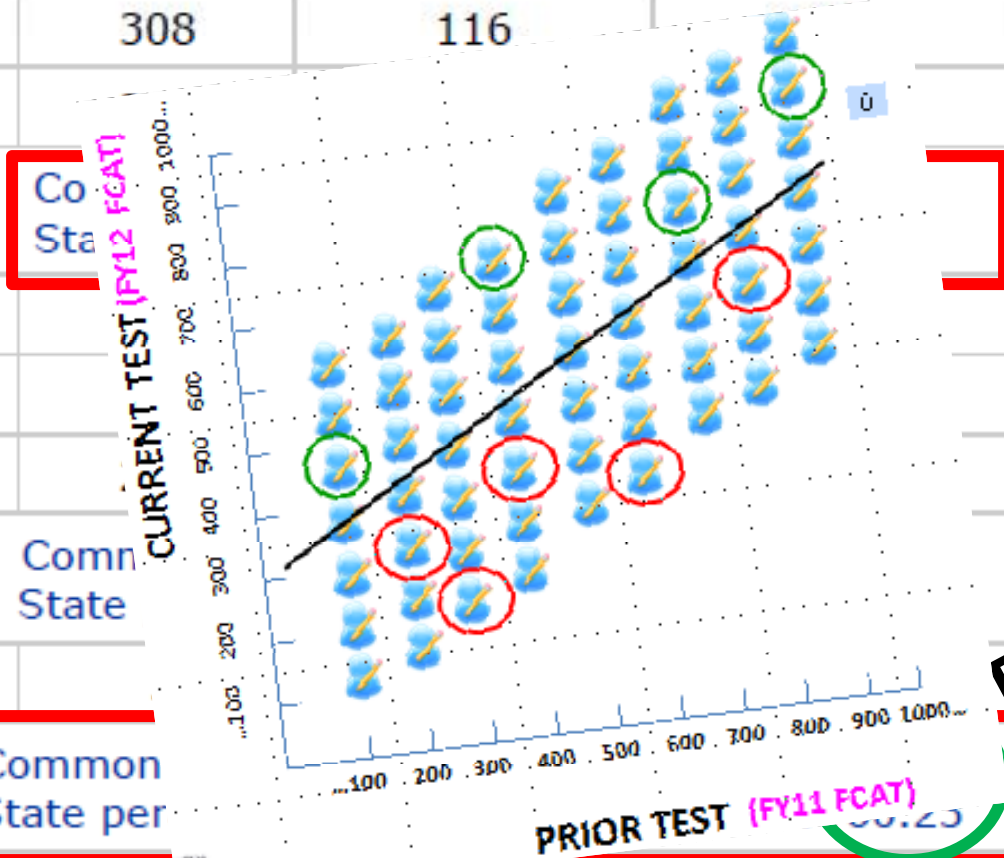
WEIGHTED-AVERAGE

HE	Eff	NI	U
3.2 - 4.0	2.1 - 3.1	1.2 - 2.0	1.0 - 1.1

FY2012 School VAM Data - Detail Report

School Type: MS School: [REDACTED] SCHOOL

Subject	Grade	Number of Students	Number Meeting Expectation	Percent Meeting Expectation	School Component
Math	06	279	110	39.43	-1.09
	07	308	116		-2.54
	08				1.90
		Co Sta			
Read	06				1.54
	07				0.02
	08				1.50
		Comm State			
		Common State per			



Effective

Sample teacher report

Teacher: [REDACTED]

Primary Assignment: [REDACTED] Elementary School

This evaluation of student growth performance for teachers is based entirely on data produced by the Florida Department of Education (FDOE), which was calculated using their Value Added Model (VAM). This teacher was evaluated using the teacher data for Reading and Math.

FDOE data for Reading and Math

Data for	School Number	Grade Level	Subject	Teacher VAM	Common Score Reading and Math	State Percent Rank
[REDACTED]	2141	05	Reading	0.47	-2.89	10
	2141	05	Math	-4.69		

When compared with other teachers across the State based on the above data, this teacher had a State percent rank of 10.

DRAFT TEACHER REPORT

Calculation of FY2012 Student Growth Performance Level for Teachers

Student Growth Performance Levels are assigned based on the table below.

State Percent Rank	Actual Student Growth Performance Level	Reported Student Growth Performance Level
0% to < 2%	Unsatisfactory	Effective
2% to < 15%	Needs Improvement / Developing	Effective
15% to < 87%	Effective	Effective
87% to 100%	Highly Effective	Highly Effective

For the FY2012 school year, the lowest possible Reported Student Growth Performance Level is "Effective".

Based on the above information, this teacher was assigned a Student Growth Performance Level of "Effective*".

For additional explanation of the VAM calculations, please go to the school district website at http://www.palmbeachschools.org/dre/documents/final_vam_explanation_for_teachers.pdf.

List of Students in FY2012 Used on VAM Calculation

School Type:MS School Name: [REDACTED] MID
Teacher: [REDACTED]

Subject	Grade	Student ID	Last Name	First Name	FY11 Scale Score	FY12 Scale Score	Predicted FY12 Scale Score	Residual	Met Expectation
MATH	07	[REDACTED]	[REDACTED]	HAROLD	228	228	232.75	-4.75	No
		[REDACTED]	[REDACTED]	IVAN	246	292	257.31	34.69	Yes
		[REDACTED]	[REDACTED]	MICHAEL	229	247	242.37	4.63	Yes
		[REDACTED]	[REDACTED]	RICARDO	225	231	232.60	-1.60	No
		[REDACTED]	[REDACTED]	DANIEL	231	230	236.69	-6.69	No
		[REDACTED]	[REDACTED] D	CHRISTIAN	239	262	248.79	13.21	Yes
	08	[REDACTED]	[REDACTED]	ERIKA	237	249	246.12	2.88	Yes
		[REDACTED]	[REDACTED]	LINTINI	196	221	208.54	12.46	Yes
		[REDACTED]	[REDACTED]	GLENYS	212	220	219.81	0.19	Yes
		[REDACTED]	[REDACTED]	DEVIN	232	245	232.90	12.10	Yes
		[REDACTED]	[REDACTED]	BRAIAN	252	267	253.25	13.75	Yes
		[REDACTED]	[REDACTED]	EDGAR	231	251	234.21	16.79	Yes
		[REDACTED]	[REDACTED]	HECTOR	220	239	229.33	9.67	Yes

Resources

- [Research & Evaluation Website](#) (PPT)
- [FLDOE Resources](#) on Student Growth
 - [State Educator Evaluation System](#) (Video)
 - [Value-Added Model White Paper](#) (Word, 841KB)
 - [Value-Added Model Technical Report](#) (Word, 601KB)
 - [Presentation on the Value-Added Model](#) (PDF, 103KB)
 - [FDOE - VAM Course Codes used in Value-Added Model](#)
- [Oak Tree Analogy of Value-added](#)

CONTACT

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