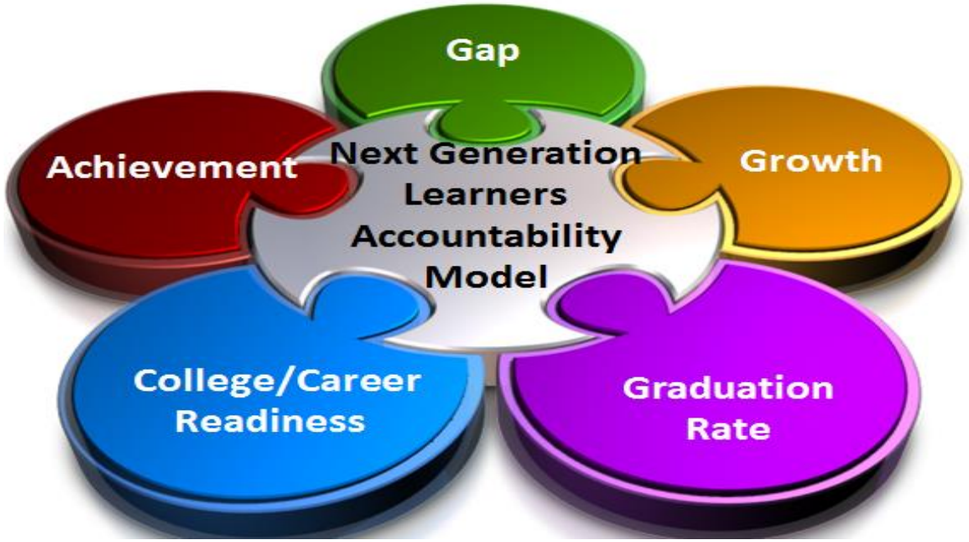

Student Growth and the Professional Growth and Effectiveness System

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Kentucky Department of Education

April 2014

Unbridled Learning: Next-Generation Accountability Model

- Next Generation Learner
  - Achievement
  - Gap
  - Growth (SGP)
  - College/Career Readiness
  - Graduation Rate

- Next Generation Instructional Programs and Support
  - Program Reviews
    - Arts/Humanities
    - Practical Living/Career Studies
    - Writing
    - Primary/World Languages

- Next Generation Professionals
  - Teachers and Leaders

Next-Generation Learners Accountability System

Student Growth Percentile (SGP)

Traditional Growth

- Traditional picture of growth is getting a score on a student and then re-testing the student to see how he/she improved.
  - Example: Addition – One Digit Numbers
    - A student takes 20 multiple-choice (MC) questions on the first test and gets 8 correct.
    - A week later the student takes another 20 MC question test and now gets 18 correct.
    - We can say the student grew in his/her knowledge of adding one digit numbers.

Traditional Growth

- Formative and interim assessments work very well with the traditional view of growth.
  - Focus on a select subject
  - Use lots of items to measure the skill
  - Show improvement since items are alike

Problems with Traditional Growth in Summative Assessments

- Once-a-year summative assessments have some problems with this traditional view.
  - Cover a broader set of objectives
  - Use fewer items to measure an objective
  - Are administered once a year

Growth Models

- Student Growth Percentile
- Gain Score
- Trajectory
- Categorical
- Residual Gain
- Projection
- Multivariate

Student Growth Percentile (SGP) Model

- SGP measures change in an individual student's performance over time.
  - How much did John improve in mathematics from grade 4 to grade 5 can be answered by showing:
    - How well John improved from grade 4 to 5 compared to his academic peers.

Student Growth Percentile Key Points

- Each student's rate of change is compared to other students with a similar test score history ("academic peers").
- The rate of change is expressed as a percentile.
  - How much did John improve in mathematics from grade 4 to grade 5, relative to his academic peers?
  - If John improved more than 65 percent of his academic peers, then his student growth percentile would be 65.

Student Growth Percentile Key Points

- Focuses on the relative standing of a student from year to year compared to the student's academic peers.
  - The academic peers are students who perform very similarly to the student on the test. The student is only compared to students who start at the same place.
  - In year two, the question is: Did the student outpace his peer group?

Student Growth Percentile (SGP)

- Students who outpaced their peer group would be in the percentile ranks of 50 – 99.
- Students who underperformed their peer group would be in the percentile ranks of 1 – 49.
- In Kentucky, though, the acceptable rank for growth is the 40th percentile.
- Students who score at the 40th percentile or higher are considered to have typical or higher annual growth.

Student Growth Percentile (SGP) Requirements

- Must have two test scores from two different years for each student.
- Tests must be in same subject.
  - In Kentucky only Reading and Mathematics are tested each year from grades 3-8.
  - High schools will use PLAN (grade 10) and ACT (grade 11) scores in Reading and Mathematics.

Student Growth Percentile (SGP)

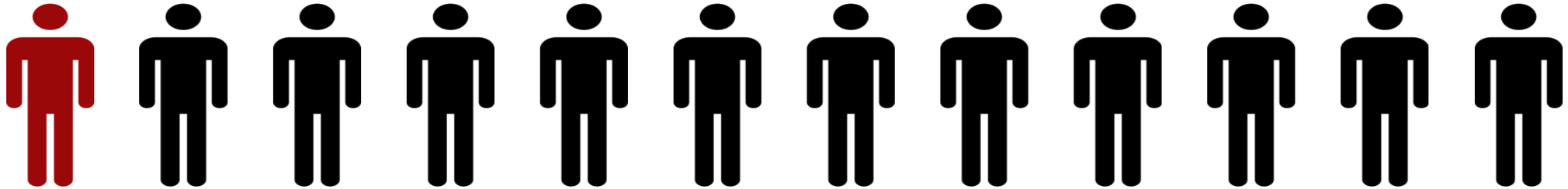
- SGP is a way to measure progress for students at all performance levels.
  - SGP provides evidence of improvement even among those with low achievement.
  - SGP gives high achieving students and schools something to strive for beyond proficiency.

Student Growth Percentile
Kentucky Classroom

Mrs. Smith Grade 5

Mrs. Smith—Grade 5 Classroom

Beginning of Year Incoming Mathematics Scale Scores

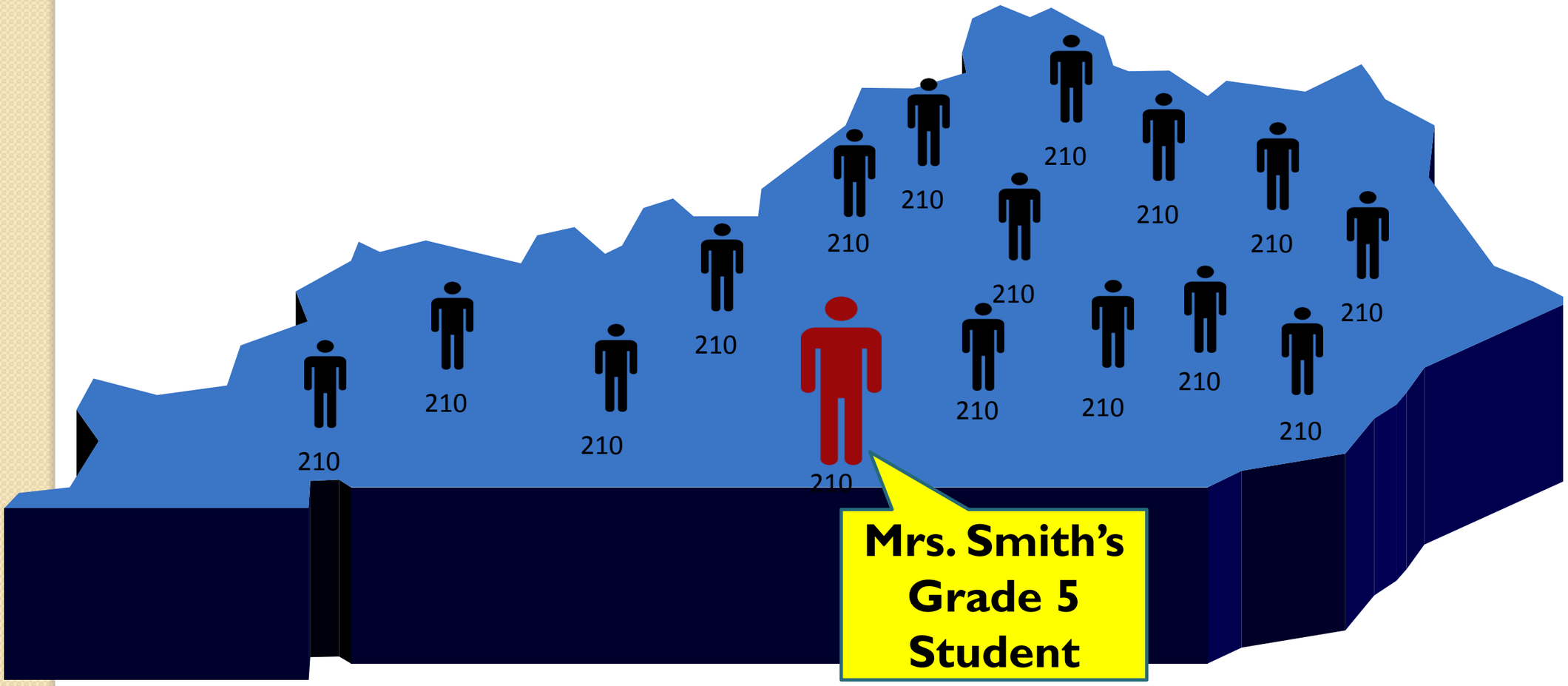


Grade 4	210	195	201	220	185	222	187	193	208	203	219	197

Grade 4	213	199	231	188	196	185	194	218	196	205	200

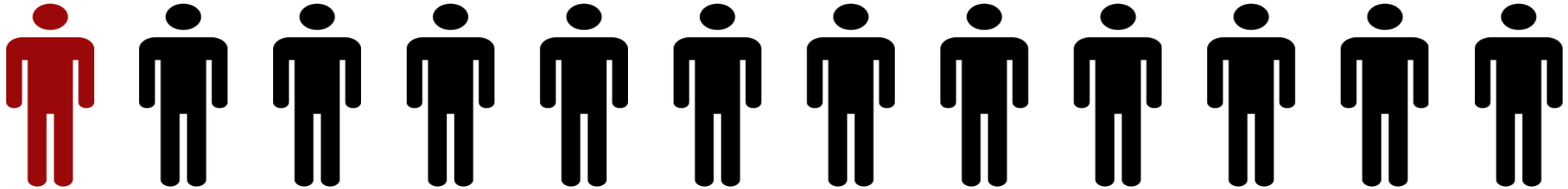
Academic Peer Group (Statewide)

Students Scoring at 210 on Grade 4 Mathematics

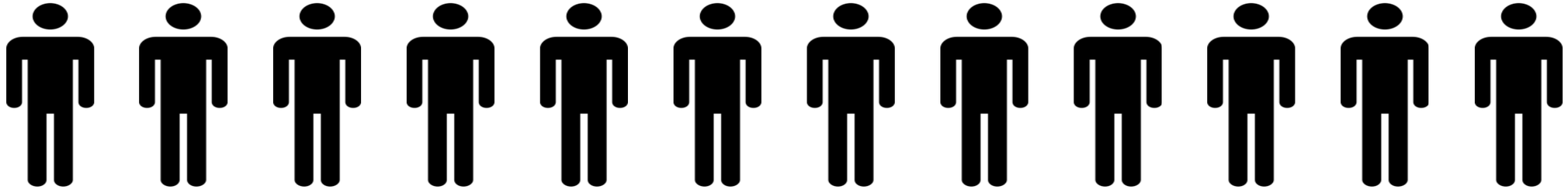


Academic Peer Group (Statewide)

Grade 5 Mathematics Scale Scores for Grade 4 "210" Group

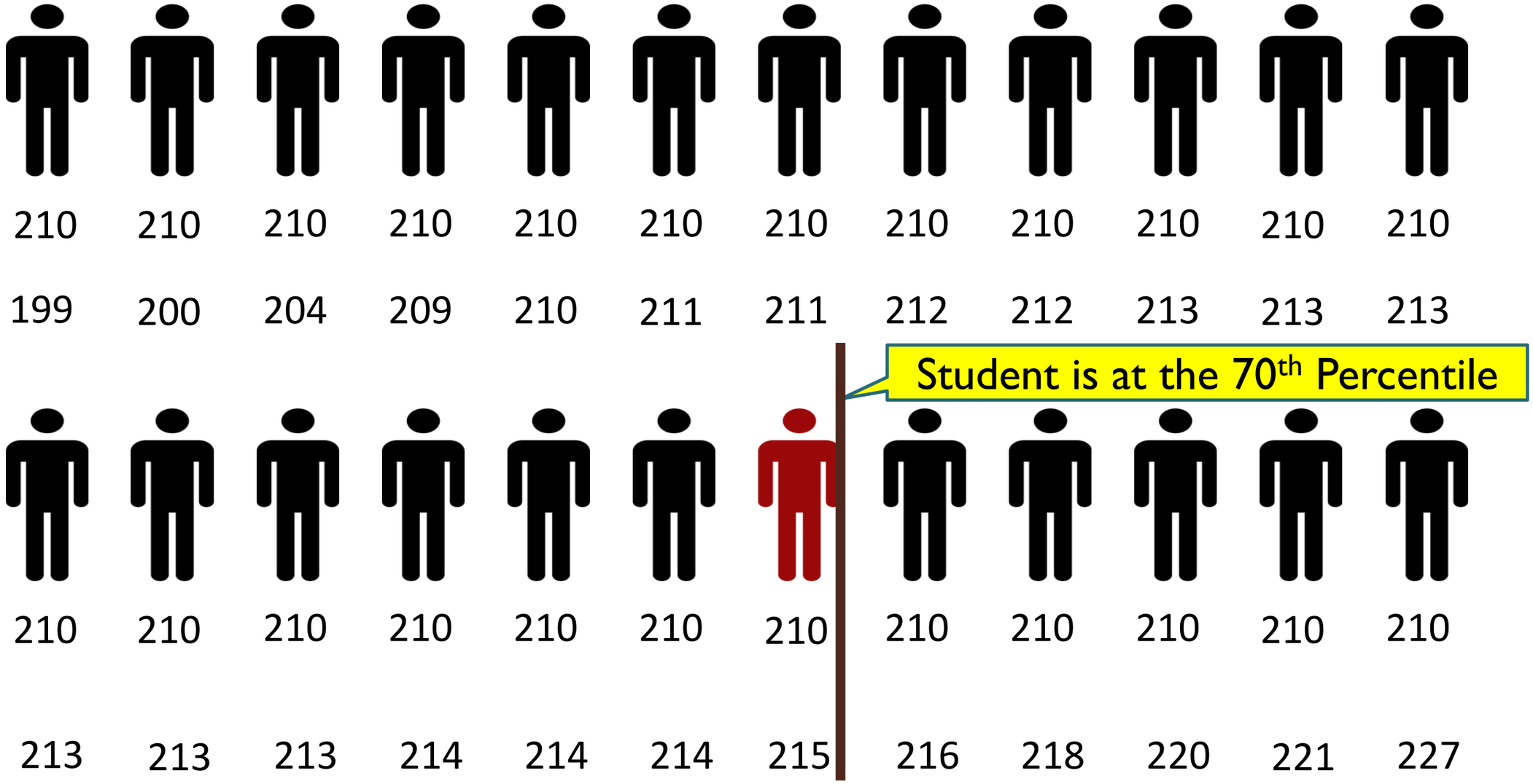


Grade 4	210	210	210	210	210	210	210	210	210	210	210	210
Grade 5	215	212	200	213	213	209	218	214	211	213	221	204



Grade 4	210	210	210	210	210	210	210	210	210	210	210	210	. . .
Grade 5	216	199	220	227	214	213	210	212	211	213	221	214	

Rank Ordered Grade 4 Mathematics "210" Academic Peer Group Based on Grade 5 Mathematics Score

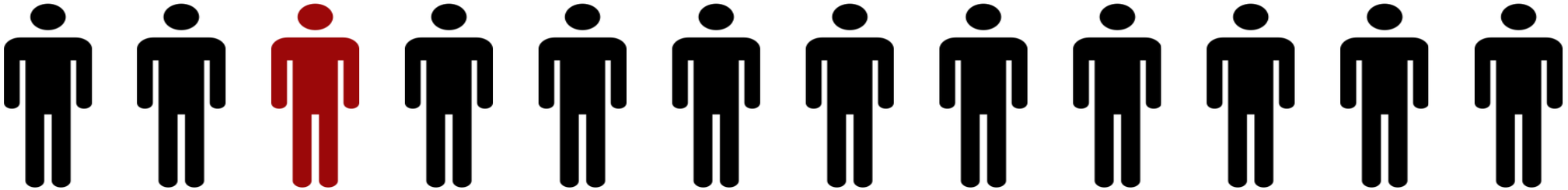


Student Summary

- Grade 4 Mathematics Score is 210.
- Grade 5 Mathematics Score is 215.
- The student outpaces 70% of the statewide Academic Peer Group.
- The student's SGP is 70.

Mrs. Smith—Grade 5 Classroom

SGP for Each Student Based on Grade 5 Mathematics Test



SGP

92 85 70 65 57 55 53 52 51 49 47 46

SGP

44 43 42 41 40 38 32 26 23 21 19

State Accountability Use of SGP

CLASSROOM	GRADE	BELOW 40 SGP	AT 40 or HIGHER SGP
Smith - Math	5	6	17
Smith - Reading	5	7	16
Rodriguez - Math	4	9	17
Rodriguez - Reading	4	2	26
Total Number of Scores		24	76
Percentage for State Accountability		24%	76%

Elementary Accountability Calculation:

76% (students at 40 or higher SGP) **X** 40% Weight = 30.4 Points Earned for Growth Component of Unbridled Learning

Theoretical Premise:

When students with “like” scores are placed in an academic peer group and then compared one year later, we assume teacher and school actions happened between the two tests to cause a student to stay even with or out-perform the academic peer group. The actions may include instruction, curriculum, on-going assessments, etc.

Unbridled Learning: Next-Generation Accountability Model

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    - Writing
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SGP

- Next Generation Professionals
  - Teachers and Leaders

Next Generation Professionals

Use of Student Growth Percentiles (SGP) to determine Teacher Effectiveness

Student Growth

- Two types of Student Growth will factor into a teacher's overall Student Growth Rating:
  - Local Student Growth Goals (all teachers)
  - State Student Growth Percentiles (approximately 20% of teachers)

Student Growth Percentiles

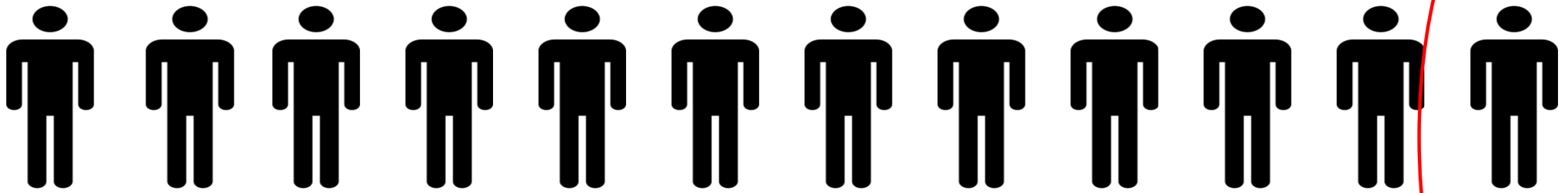
- Available for teachers of students in grades 4-8 who take K-PREP in Reading and/or Math
- Not available for Grade 11 (PLAN-ACT) for teacher effectiveness because there may be more than one teacher impacting that student's growth

Teacher Student Growth Percentile

- Median Student Growth Percentiles are used.
- Up to three years of data are combined.
- Math and Reading scores are combined.
- A minimum number of 10 students are required to receive SGP.
- Attribution is determined at the local level.
- It is a lagging indicator (will not be available until the next fall).

Mrs. Smith—Grade 5 Classroom

SGP for Each Student Based on 2014 Grade 5 Mathematics Test



SGP

92 85 70 65 57 55 53 52 51 49 47 46

SGP

44 43 42 41 40 38 32 26 23 21 19

Mrs. Smith's Median Math SGP=46

Mrs. Smith—Grade 5 Classroom

SGP for Each Student Based on 2014 Grade 5 Reading Test

SGP

89 81 70 69 68 67 63 60 59 53 53 52

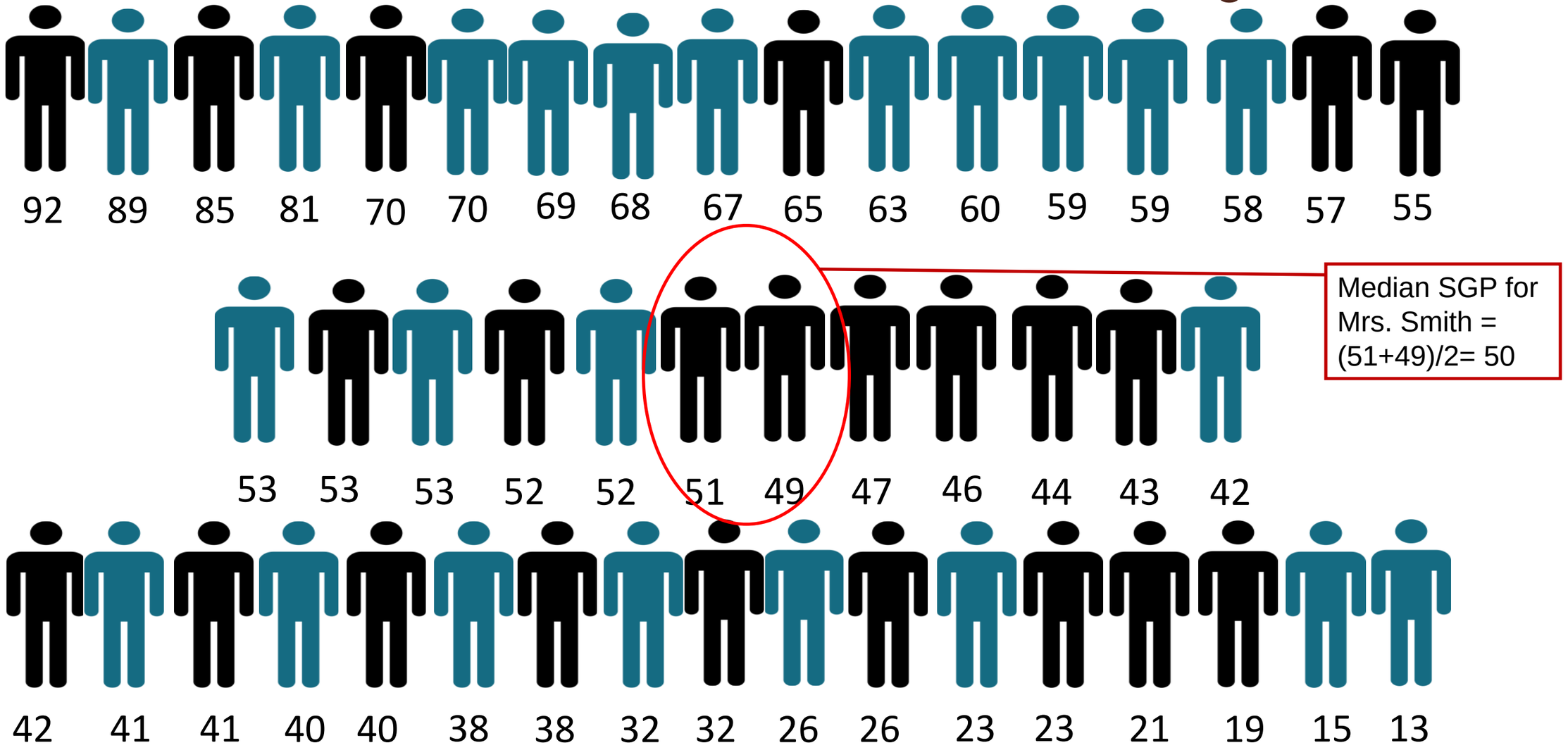
SGP

49 48 42 41 39 38 32 26 23 15 13

Mrs. Smith's Median Reading SGP=52

Mrs. Smith—Grade 5 Classroom

SGP for All 23 Students in Math and Reading



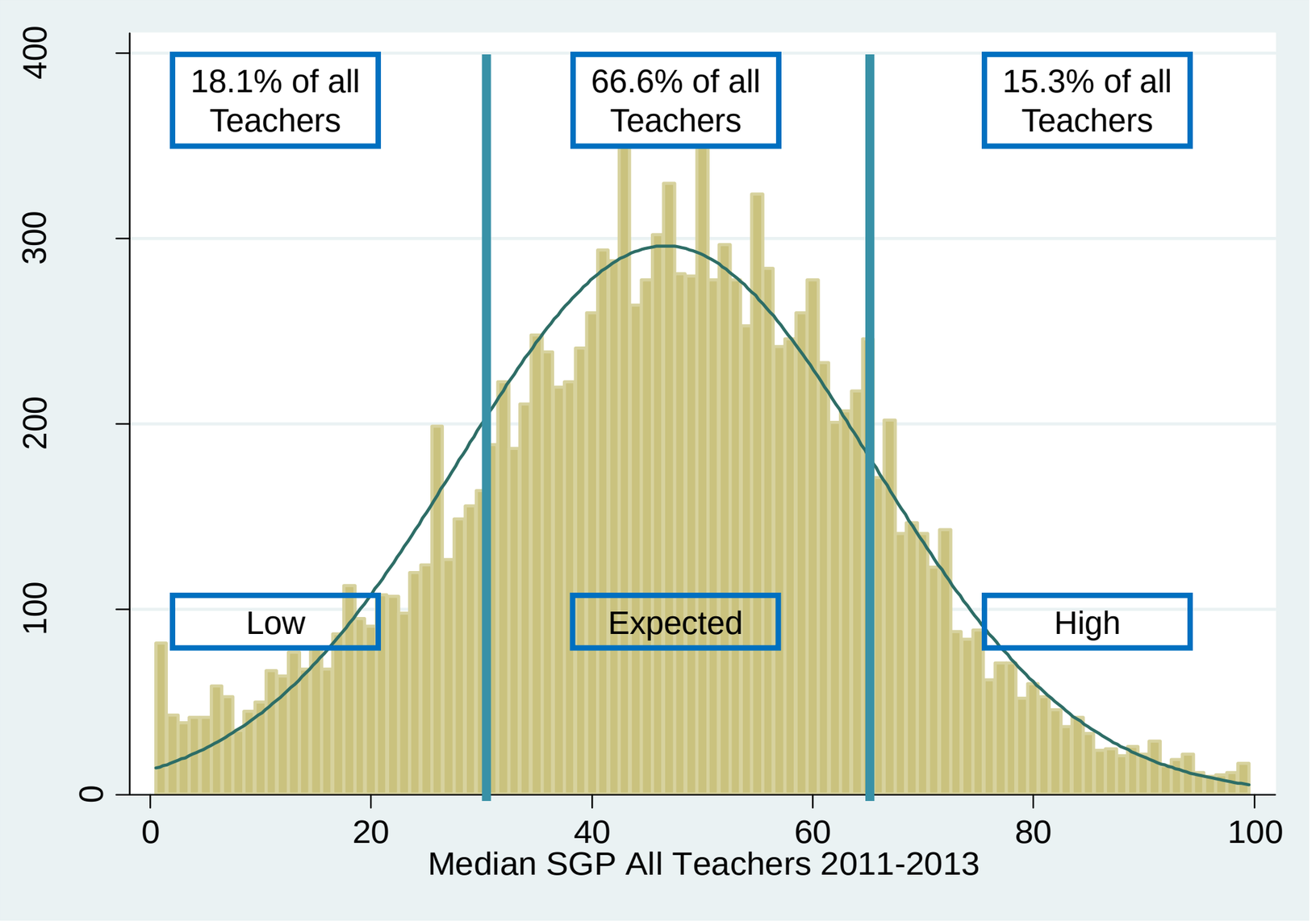
Student Growth Rating

- Teachers will receive one of 3 ratings on their overall student growth: Low, Expected, or High.
- For research purposes median student growth percentiles were calculated for all teachers statewide.
- Using the distribution of median student growth percentiles, cutoffs were created to indicate Low, Expected, and High Student Growth.

Rationale for Ratings

- The mean Teacher SGP score was 47.
- Expected Student Growth should constitute approximately 2/3 of teachers.
- Cut scores for Low, Expected and High were determined using the distribution of median SGPs for teachers.

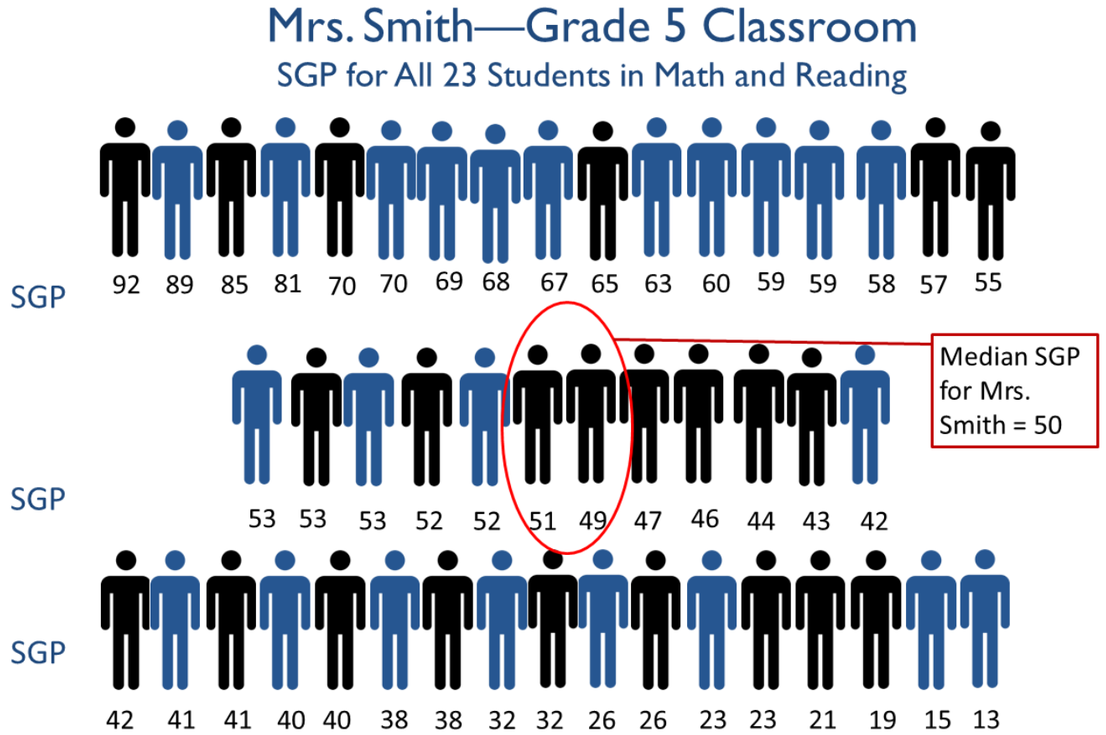
Distribution of Teachers' SGPs



Student Growth Percentile Ratings

Growth Rating	Median SGP	% of Population
Low	Less than 30	18.1%
Medium	Between 30 and 65	66.6%
High	Above 65	15.3%

What was Mrs. Smith's Rating?



- Mrs. Smith had a median SGP of 50; therefore, she would have a state student growth rating of Expected.
- Up to 3 years of Data and Math/Reading Scores can be used.

Student Growth Goals

I. Assumptions around local contributions to student growth
II. Foundations of the work in Kentucky
III. Research base
IV. Connections to KCAS and PGES
V. Key features of student growth
VI. Lessons learned from deep-dive districts
VII. Voices from the field – *PANEL DISCUSSION*
VIII. Supports for districts

Student Growth Assumptions and Misconceptions

- Accountability improves educator performance.
- *Growth* is measured over time.
- The expectation must be consistent for all teachers.
- Accountability is imposed on teachers.
- Equity requires comparability.
- Comparable means "the same".
- We've built it… we're done!

Essential Conditions for Success

Kentucky's Foundation:

- Classroom Assessment for Student Learning (CASTL)
- Senate Bill 1 - 2009
- Leadership Networks
  - Assessment Literacy
- Math Design Collaborative/Literacy Design Collaborative
- Program Reviews

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Demonstrator 2. Expectations for Student Learning Teachers communicate consistently high expectations and use common standards for student learning in Arts & Humanities.			
No Implementation	Needs Improvement	Proficient	Distinguished
a) Exemplar models are not used in classroom instruction.	a) Exemplars or models are used in classroom instruction, but students are not clear as to how they can apply what they learn from models.	**a) Exemplar/models** are used to encourage students to demonstrate characteristics of **rigorous work** in the appropriate art form in most instructional lessons/units.	a) Exemplars/models are used with every instructional lesson/unit (e.g. historical masterpieces, current works, performances by exemplary artists, or exemplary student work).
a) Rubrics/scoring guides are not used.	a) Teachers use clearly defined rubrics or scoring guides but do not share them with students.	a) Teachers share **clearly defined rubrics or scoring guides** with students before creating, performing, or responding assignments or assessments appropriate to the age and grade level and students have the opportunity to **provide input into the scoring guide**.	a) Teachers engage students in creating their own rubrics or scoring guides for creating, performing, or responding assignment/assessments appropriate to the age and grade level.
a) Teachers develop student learning and academic growth goals that are unrelated to identified student needs.	a) Teachers develop rigorous student learning and academic growth goals that are attainable, reflect acceptable growth and are related to identified student needs, but the SMART (specific, measurable, appropriate, realistic and time bound) goals process needs refining.	**a) Teachers develop rigorous student learning and academic growth through student learning objectives** and refined SMART (specific, measurable, appropriate, realistic and time bound) goals that are rigorous, attainable and reflect acceptable growth during the course or school year.	a) Teachers, in collaboration with the individual students, develop rigorous student learning and academic growth SMART goals that are rigorous, attainable and reflect acceptable growth during the course or school year.

Essential Conditions for Success

The Research:

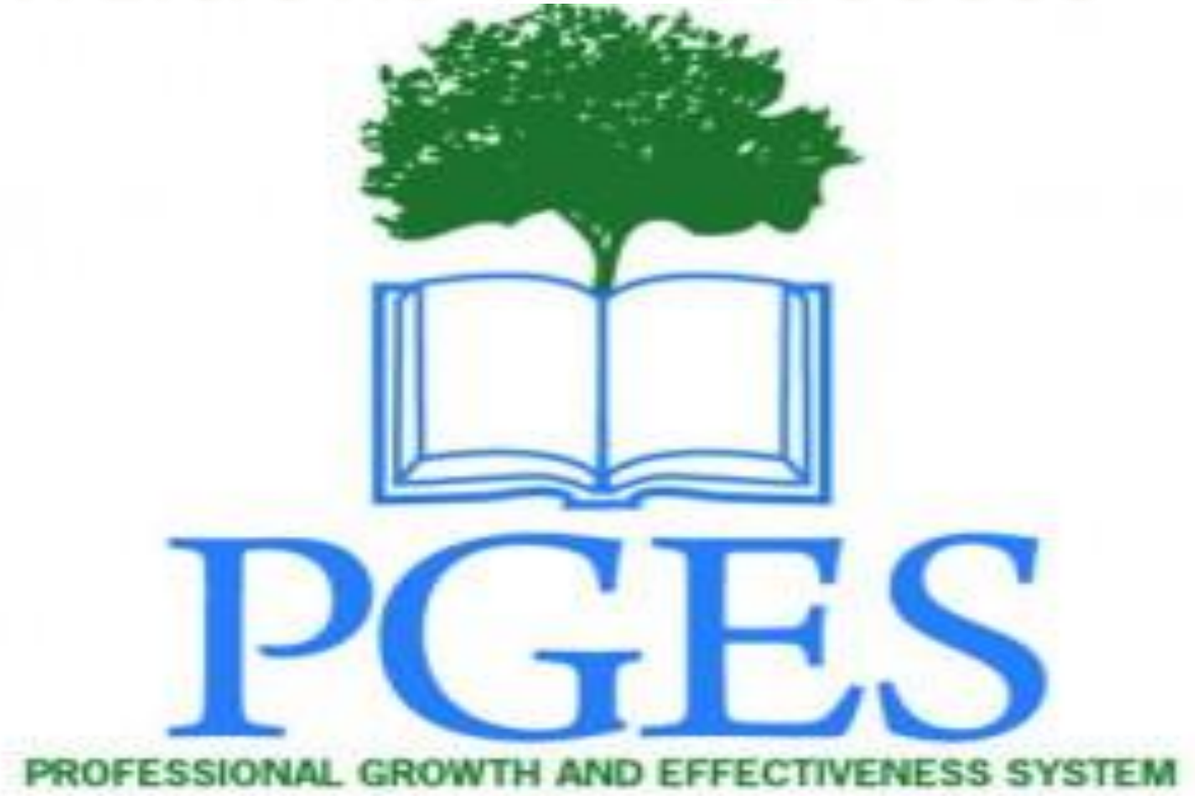
The Core

Home / Teachers/Leaders / Effective Teachers / PGES Research

Essential Conditions for Success

The Research:

Student Growth Specific



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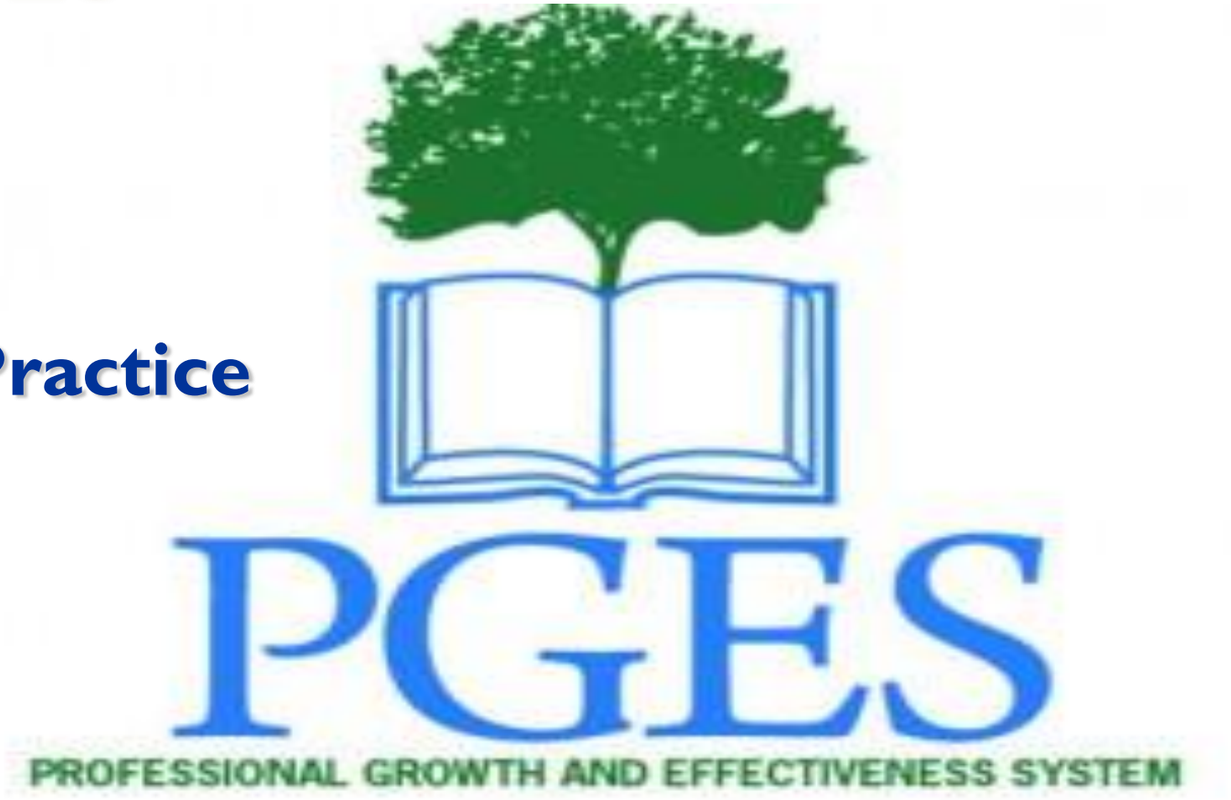
KCAS and PGES

Balancing Policy and Practice



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KCAS and PGES

Comparability and Rigor

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Structure of the Goal	Acceptable	Needs Revision	Insufficient
The student growth goal: **Focuses on a standards-based enduring skill which students are expected to master** **Identifies an area of need pertaining to current students' abilities** **Includes growth and proficiency targets that establish and differentiate expected performance for ALL students** **Uses appropriate measures for base-line, mid-course, and end of year/course data collection** **Explicitly states year-long/course-long interval of instruction**	The student growth goal: Focuses on a standards-based enduring skill Identifies a specific area of need supported by data for current students Includes a growth target that establishes growth for ALL students; a proficiency target that establishes the mastery expectation for students Uses measures for collecting baseline, mid-course, and end of year/course data that matches the skill being assessed Specifies a year-long/course-long interval of instruction	The student growth goal: Focuses on a standards-based skill that does not match enduring skill criteria Identifies a specific area of need, but lacks supporting data for current students Includes both a growth target and a proficiency target, but fails to differentiate expected performance for one or both targets Uses measures that fail to clearly demonstrate performance for the identified skill Specifies less than a year-long/course-long interval of instruction	The student growth goal: Is not standards-based Is not focused on a specific area of need Includes only a growth or a proficiency target Uses no baseline data or uses irrelevant data Fails to specify an interval of instruction
Rigor of the Goal	Acceptable	Needs Revision	Insufficient
The student growth goal: **Is congruent to KCAS grade level standards and appropriate for the grade level and content area for which it was developed** **Identifies measures that demonstrate where students are in meeting or exceeding the intent of the standard(s) being assessed** **Includes growth and proficiency targets that are challenging for students, but attainable with support**	The student growth goal: Is congruent and appropriate for grade level/content area standards Identifies measures that allow students to demonstrate their competency in performing at the level intended in the standards being assessed Includes growth and proficiency targets that are doable, but stretch the outer bounds of what is attainable	The student growth goal: Is congruent to content, but not to grade level standards Identifies measures that only allow students to demonstrate competency of part, but not all aspects of the standards being assessed Includes targets that are achievable, but fail to stretch attainability expectations	The student growth goal: Is not congruent or appropriate for grade level/content area standards Identifies measures that do not assess the level of competency intended in the standards Includes targets that do not articulate expectations AND/OR targets are not achievable
Comparability of Data	Acceptable	Needs Revision	Insufficient
Data collected for the student growth goal: **Uses comparable criteria across similar classrooms (classrooms that address the same standards) to determine progress toward mastery of standards/enduring skills**	For similar classrooms, data collected for the student growth goal: Reflects use of common measures/rubrics to determine competency in performance at the level intended by the standard(s) being assessed	n/a	For similar classrooms, data collected for the student growth goal: Does not reflect common criteria used to determine progress

KCAS and PGES

Enduring Skills and Content

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Enduring Skill	Reference to Standards	What's Mastery Look Like at your Grade Level?	Sources of Evidence: What is available or needs to be developed?
Make logical inferences from complex text	Anchor Standard #1		
Summarize key details & ideas of complex text	Anchor Standard #2		
Analyze individuals, events, and ideas throughout complex text	Anchor Standard #3		
Interpret words & phrases to comprehend text independently	Anchor Standard # 4		
Evaluate content presented in diverse media and formats to comprehend complex text	Anchor Standard #7 (S/L- Comprehension and Collaboration) (W- Research to B&P Knowledge)		
Delineate and evaluate the argument and specific claims in complex text	Anchor Standard #8		

Key Features of Student Growth Goals

Think and Plan

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Think and Plan Guidance for Developing Student Growth Goals

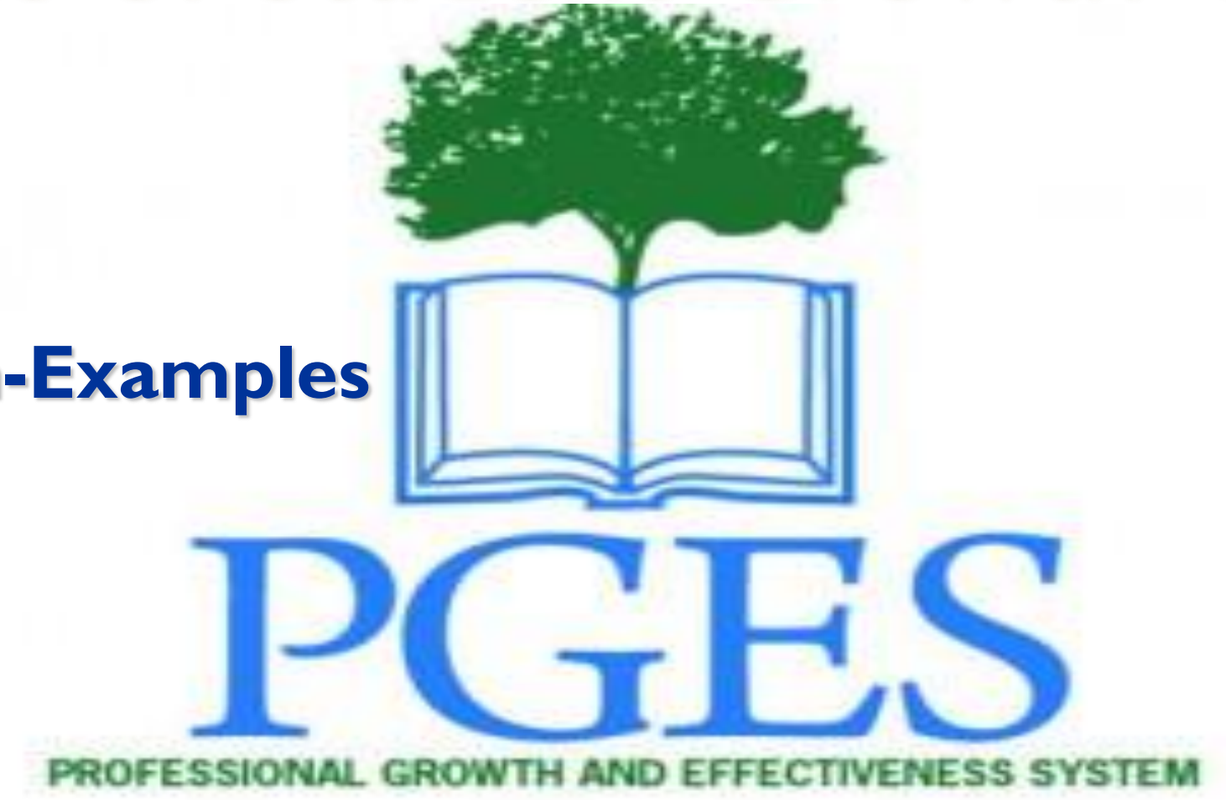
Purpose: This document is a summary form a teacher completes for conferencing with his/her administrator. The column to the right provides guidance and detail for completing the process and the template.

Step 1: DETERMINE NEEDS

Identify the context of the identified class, including student population. *The class in which I'll implement my student growth goal is a 6th grade science class. I have a gifted cluster in this class and 9 title one students. The class represents a diverse population, including free and reduced lunch students.* **Identify the course-long interval of instruction *(e.g., trimester, semester, one school year).*** *Current school year* **Identify the content area enduring skills*, concepts, and/or processes that your goal will target. (In the KCAS for Mathematics, the "*Enduring Understandings*" reflect the enduring learning advocated in the goal-setting for student growth process. Consult the Enduring Skills Initial List for your content area for examples.)** *Engaging in argument from evidence **and** obtaining, evaluating and communicating information (in context of science content)*	**Guiding Questions** **In collaboration with colleagues, identify the enduring skills*, concepts, and processes for my content area.** ✓ Based on my content standards, what are the enduring skills*, concepts and processes students should master by the end of the school year/course? ✓ Do the identified skills, concepts and processes represent essential learning that: ENDURES beyond a single test date, is of value in other disciplines, is relevant beyond the classroom, is worthy of embedded, course-long focus, and may necessary for the next level of instruction (next grade or future course)?

Key Features of Student Growth Goals

Examples and Non-Examples



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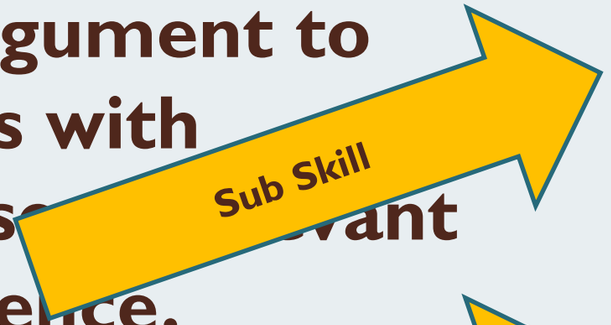
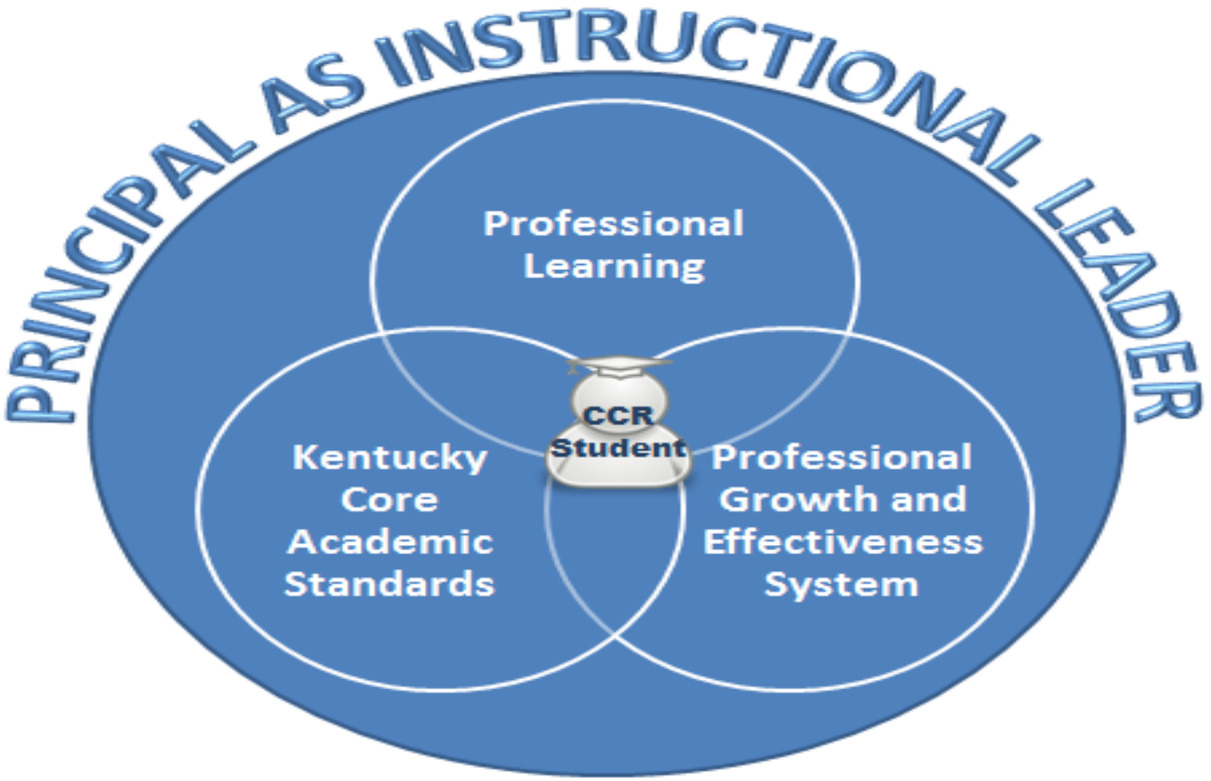
ENDURING LEARNING
Social Studies Example

EXAMPLES	NON-EXAMPLES
Produce an argument to support claims with appropriate use of relevant historical evidence.	Describe point of view for primary and secondary sources.
	Use Chicago Style correctly when citing evidence.
	Improve student perception of history.



Creating Coherence in Kentucky



Voices From The Field

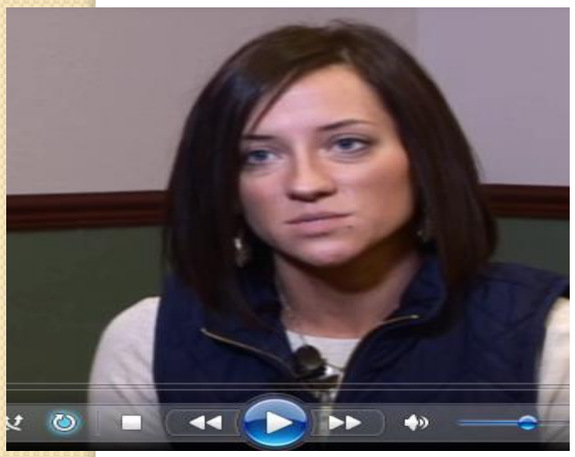
Teachers

- Michelle Devine, Washington County, MS ELA
- Laura Caudill, Montgomery County, Elementary

Principals

- Amanda Mattingly, Washington County, K-8
- Stephanie Harris, Montgomery County, Elementary
- Deb Brown, Gallatin County, Elementary

Supports for Implementation



PGES

PROFESSIONAL GROWTH AND EFFECTIVENESS SYSTEM

Supports for Implementation

BOOTS ON THE GROUND

- PGES Consultants in all 8 regions
- Effectiveness Coaches
- Content Specialists

Coordination of support monthly to ensure coherence and common messaging.

QUESTIONS?