

STUDENT GROWTH MEASURES

Office of Educator Quality

2013-2014



Norms

- Be Present and Professionally Courteous
- Be Open Minded
- Be Willing to Engage in Conversation, Share Ideas, and Ask Questions
- Look through the Lens of “How Might I Transfer...”

Why is Educator Evaluation Important?

The single most important influence on student learning is the *quality of the teacher*.

Charlotte Danielson

Why is Educator Evaluation Important?

The greatest challenge that most students experience is the *level of competence* of the teacher.

John Hattie

Refresher

Educator Evaluation

Senate Bill 291

(2010)

Development of New Teacher Standards

(2011)

NCLB Flexibility Waiver

(2012)

Essential Principles of Effective Evaluation

(2012)

Missouri Educator Evaluation Model—Pilot

(2012-2013)

Educator Evaluation Overview and Training

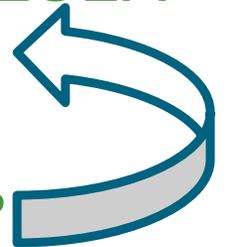
(2012-2014)

Missouri's NCLB Waiver says...

*"The essential principles of effective evaluation are the **foundation for the state's model**. Local evaluation models align to these principles to create **consistency in assessing educator performance across the state.**"*

To Clarify...

- All training shared today is *model neutral*, as each school district has local control over what model is developed or adopted.
- The intent of each Educator Evaluation System training module is to support schools in their efforts to *align their chosen model to the 7 Essential Principles* (as outlined in the ESEA Waiver of June 2012).
- What are school districts accountable for?

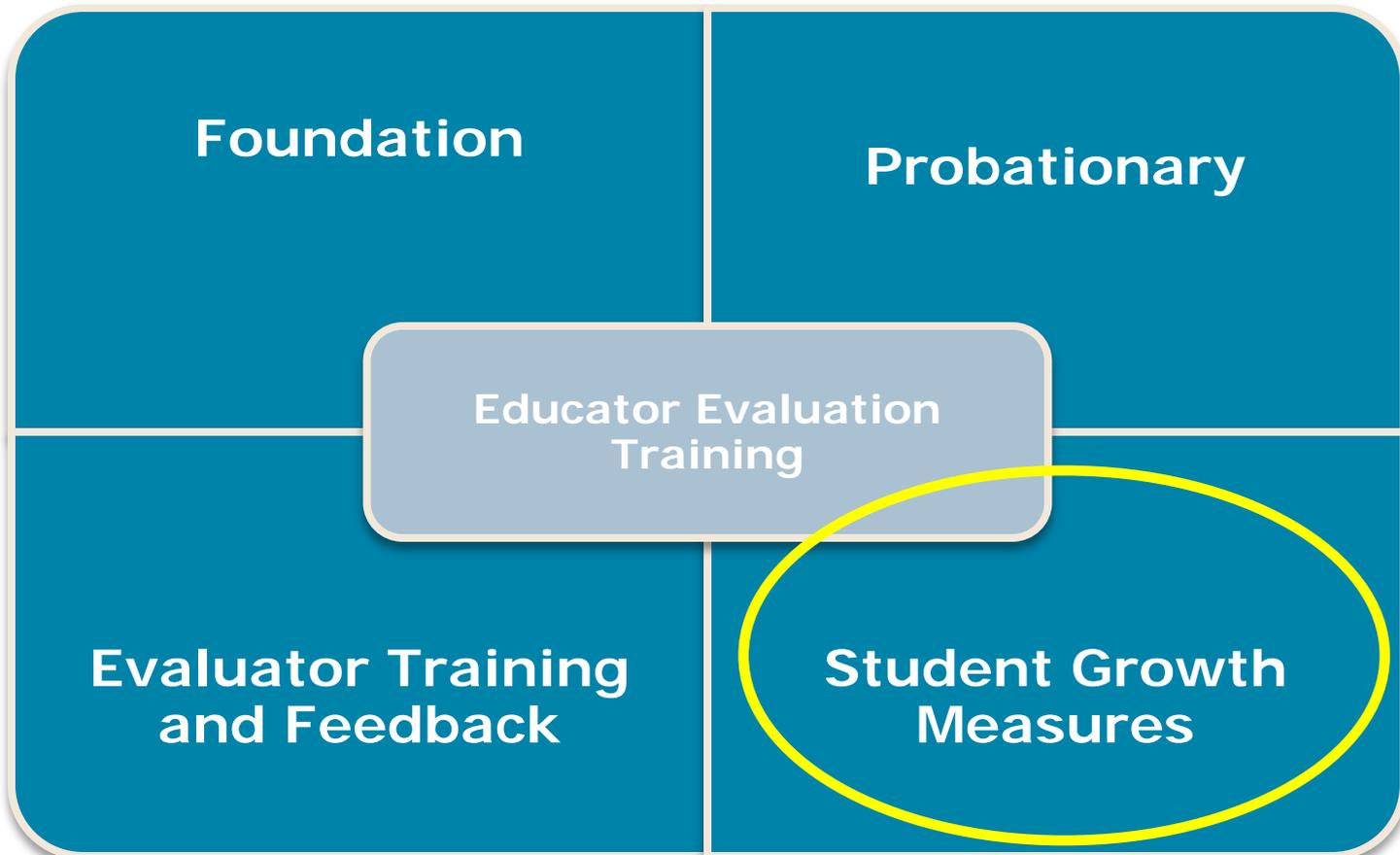


7 Essential Principles

Per NCLB Waiver (June, 2012)

- 1. Measures educator performance against research-based proven practices**
- 2. Differentiated levels of performance**
- 3. Probationary period**
- 4. Measures of growth in student learning**
- 5. Meaningful and descriptive feedback**
- 6. Training for evaluators**
- 7. Results and data informs decisions regarding personnel, employment, and policy**

2013-2014 Training Roadmap*



Essential Principles

Per NCLB Waiver (June, 2012)

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Principle #4

Critical Components

1. Student growth measures are a ***significant contributing factor*** in educator evaluation
2. Uses multiple measures including ***formative and summative*** assessments
3. Includes ***multiple years*** of comparable student data
4. Highlights student growth ***across two points in time***
5. Includes the ***state assessment where available and appropriate*** and additional district and school determined assessments

Intended Outcomes

- 1) Understand *how to include student growth measures* as one component of an entire educator evaluation system.
- 2) Be able to *identify effective student growth measures* that align with the critical components of Essential Principle #4.
- 3) Develop an *example Student Growth Measure* using the Student Learning Objective (SLO) process.

Keep in Mind...

This training *will not answer every question or address every issue*, but it will provide LEAs with a starting point in terms of *how to begin to incorporate* “student growth measures” in the evaluation process.

Student Learning Objective

Educator Growth Plan

Student Growth Measure

Formative Assessment

Summative Assessment

Student Growth Percentage

Value-Added Model

Missouri Growth Model

Normal Curve Equivalent

Data-Based Decision Making

Score Pairs

Terminology*

Student Growth Measures
as part of an
Educator Evaluation System

Confirm or discredit assumptions about students and school practices.

Get to the “root” cause(s) of problems.

Help schools evaluate program effectiveness.



Why Student Growth Measures

Reeves-Decision Making for Results

Provide the feedback teachers and administrators need to keep going and stay on course.

Prevent “one size fits all” and “quick solutions”...

Help build a culture of inquiry and continuous improvement.



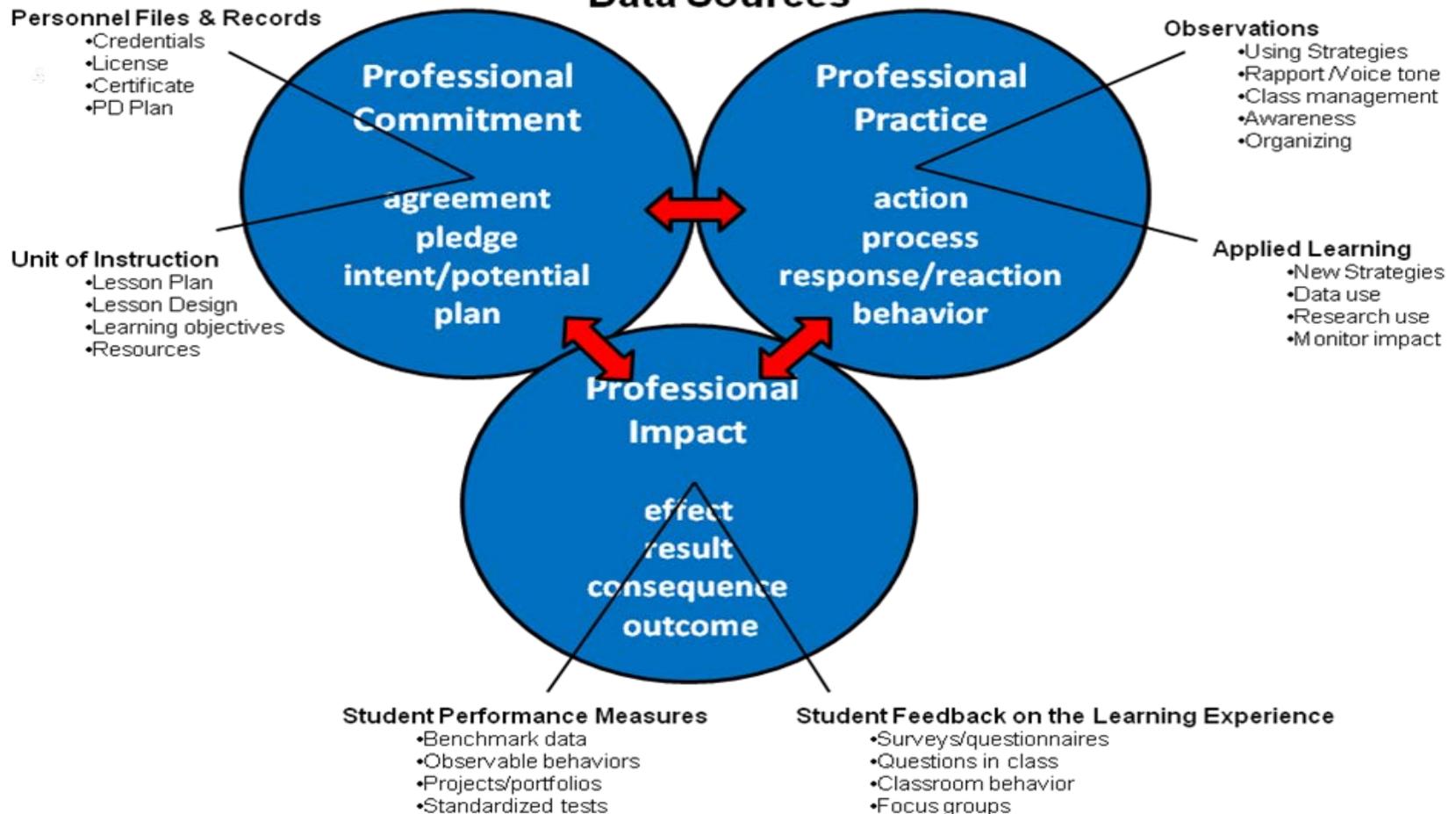
Why Student Growth Measures

Reeves-Decision Making for Results

With a partner, take a moment to reconnect with the 3 Professional Frames...

Professional Frames of the Educator

Data Sources



Professional Frames of the Educator

Data Sources

Personnel Files & Records

- Credentials
- License
- Certificate
- PD Plan

Unit of Instruction

- Lesson Plan
- Lesson Design
- Learning objectives
- Resources

Observations

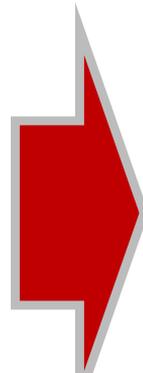
- Using Strategies
- Rapport / Voice tone
- Class management
- Awareness
- Organizing

Applied Learning

- New Strategies
- Data use
- Research use
- Monitor impact



Where would Student Growth Measures fit?



Student Performance Measures

- Benchmark data
- Observable behaviors
- Projects/portfolios
- Standardized tests

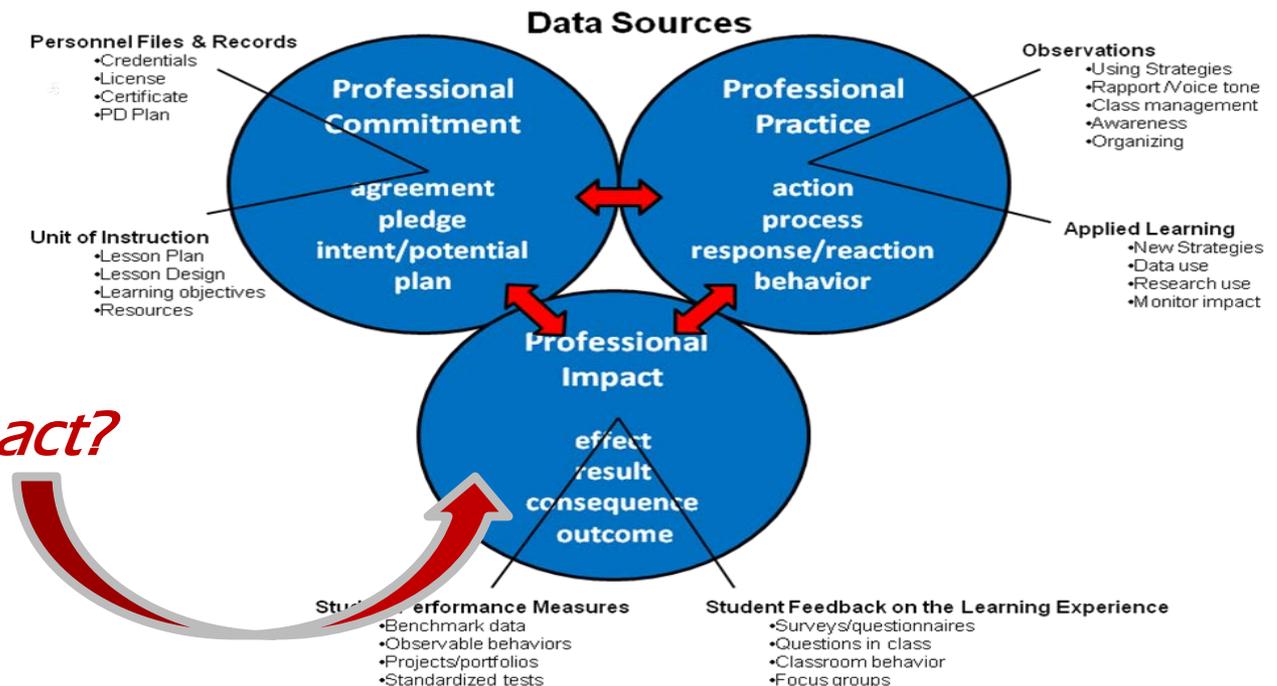
Student Feedback on the Learning Experience

- Surveys/questionnaires
- Questions in class
- Classroom behavior
- Focus groups

Current Reality: 3 Frames

Reflecting on your current educator evaluation system...*which of the three frames is most used:*

Professional Frames of the Educator

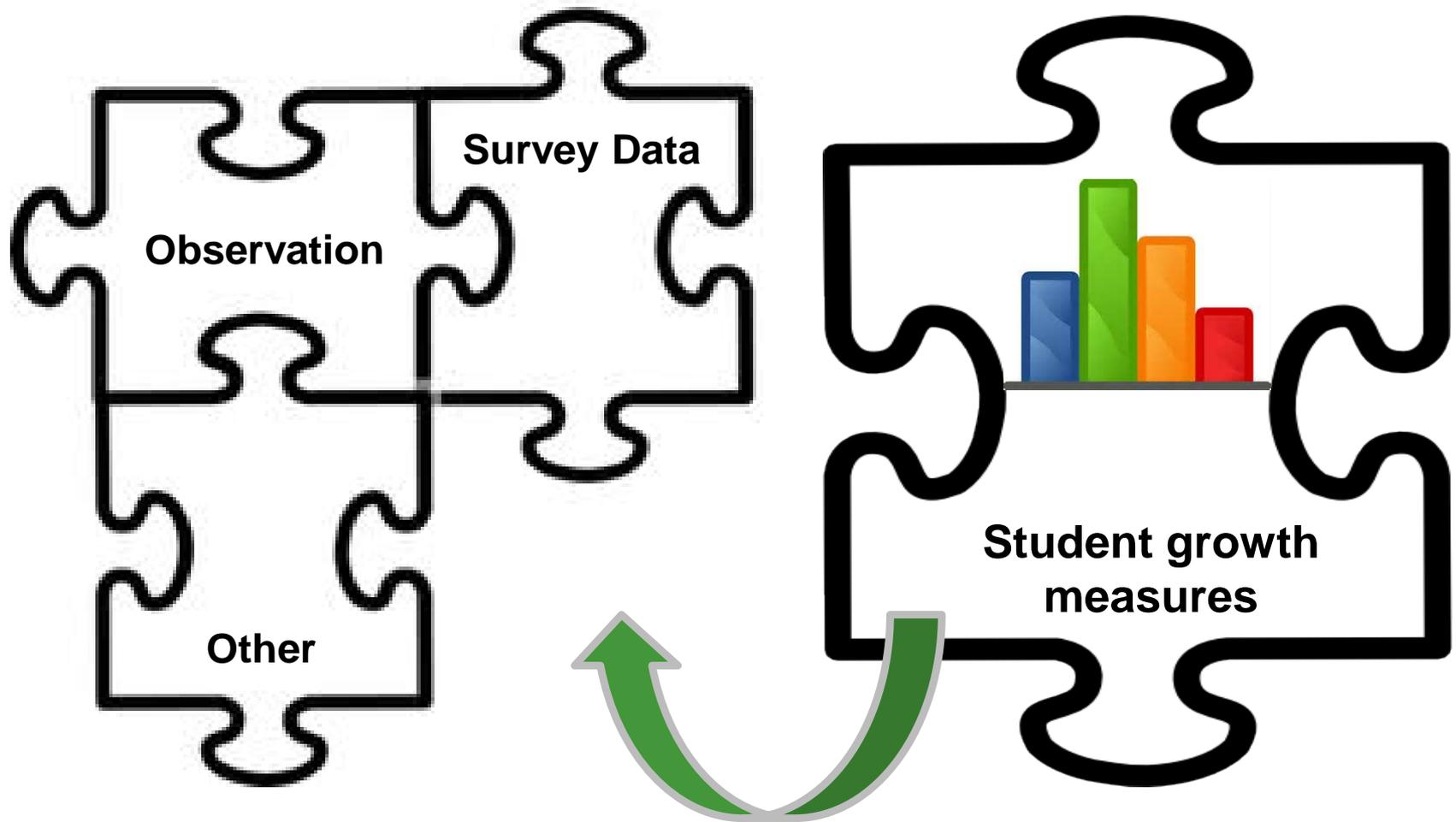


How do you measure and reflect on impact?

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1: Student growth measures are a *significant contributing factor* in educator evaluation

Formative



Assessments used throughout the school year to inform teacher of student learning growth.

What instructional decisions can I make, based on this information, that will allow me to successfully reach my goal?

Summative

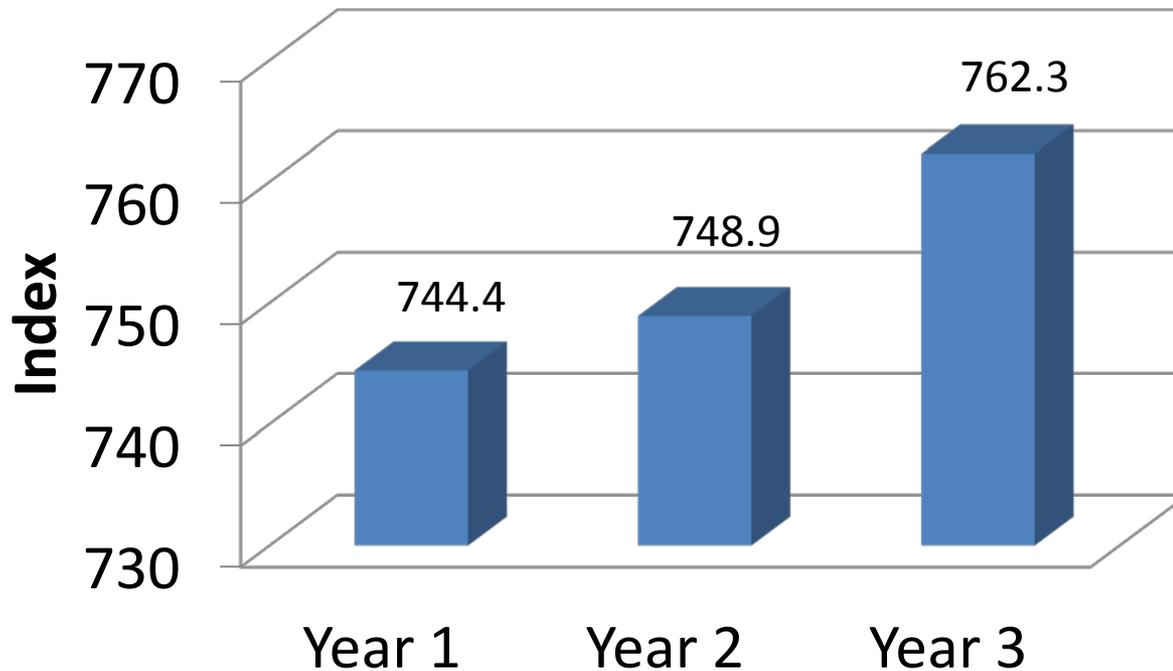


Assessments used by the teacher to determine the "outcome" of student learning.

Was the learning goal "met" or "not met"...

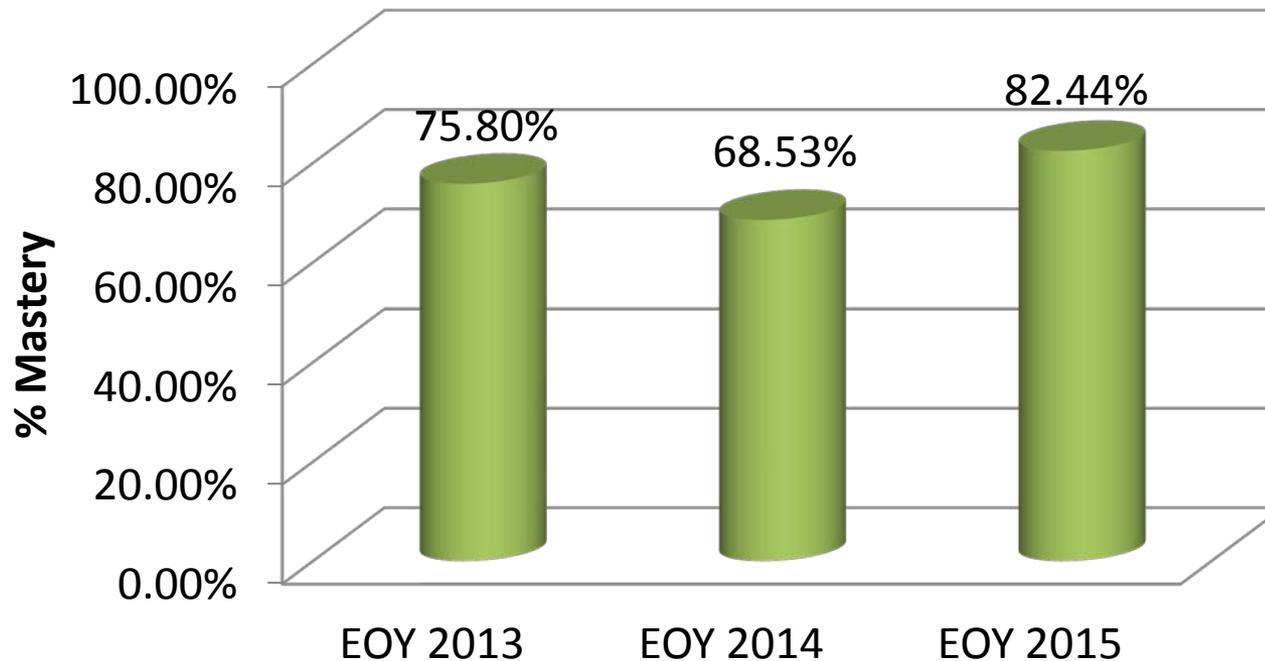
2: Uses **multiple measures** including formative and summative assessments

State Assessment: MAP



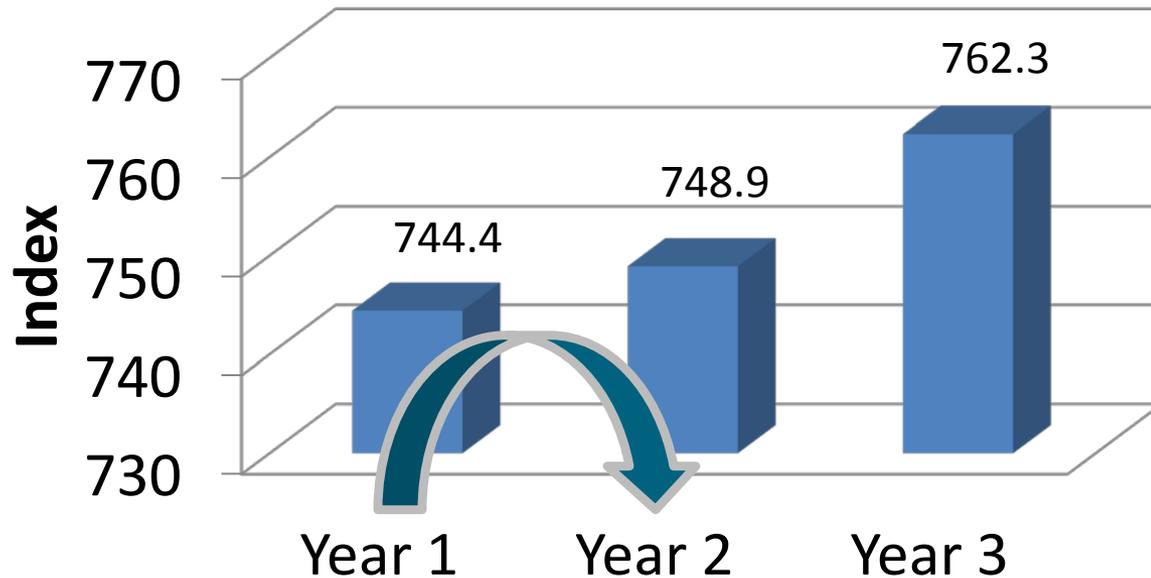
3: Includes *multiple years* of comparable student data

Local Assessment: End of Year Benchmark



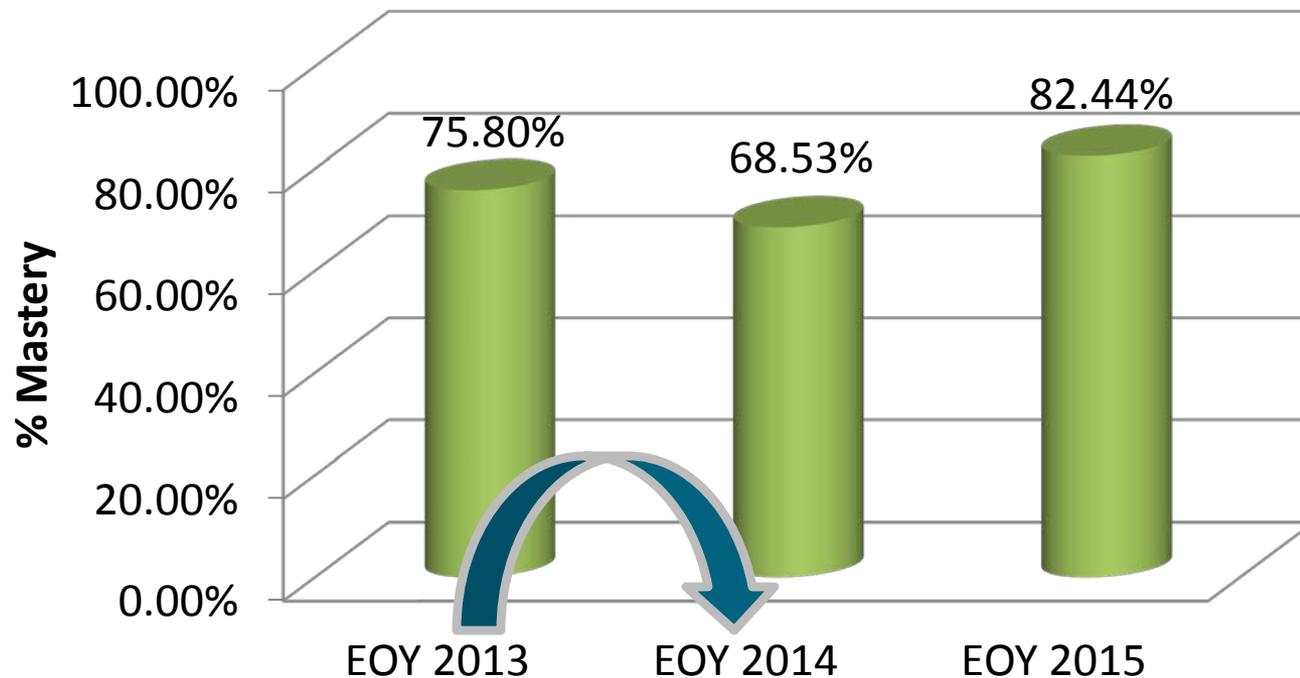
3: Includes *multiple years* of comparable student data

State Assessment: MAP



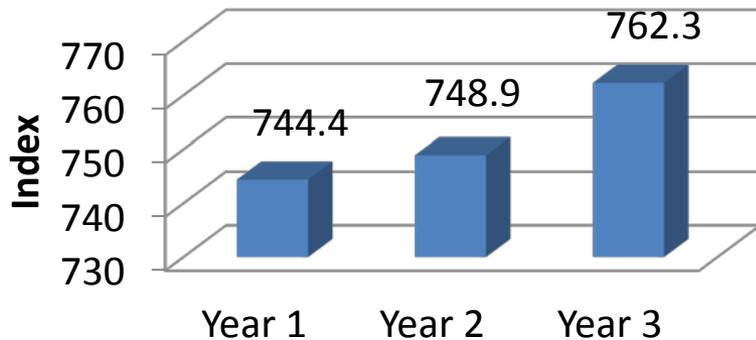
4: Highlights student growth ***across two points in time***

Local Assessment: End of Year Benchmark

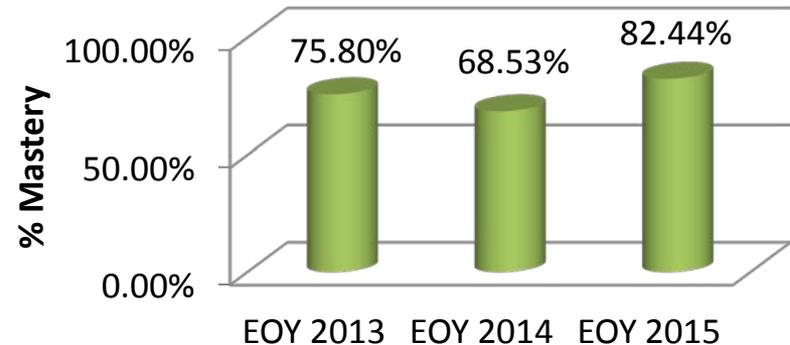


4: Highlights student growth *across two points in time*

State Assessment Measure

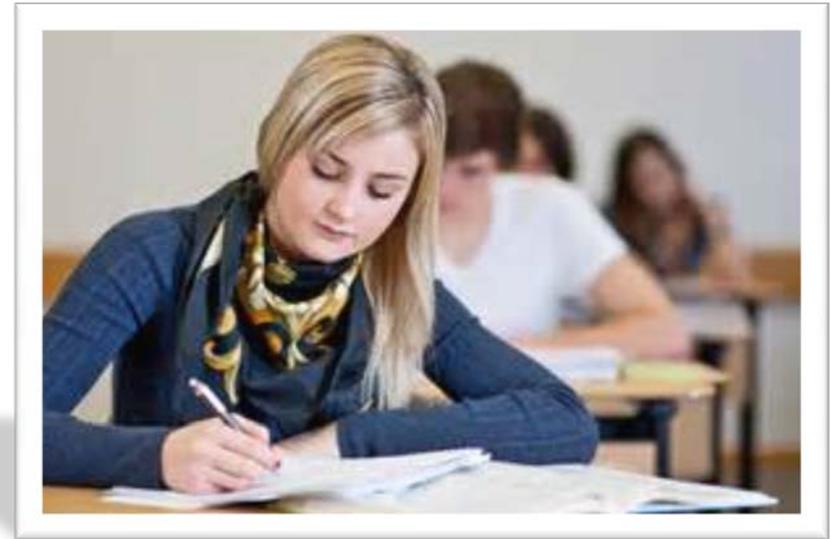


End of Year Benchmark

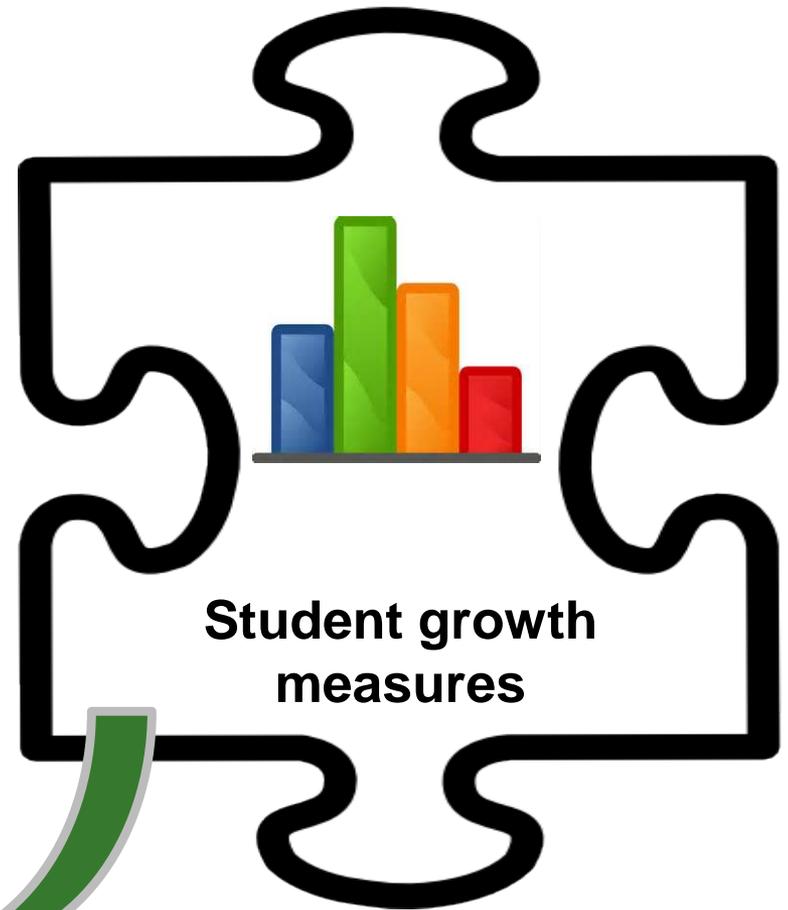
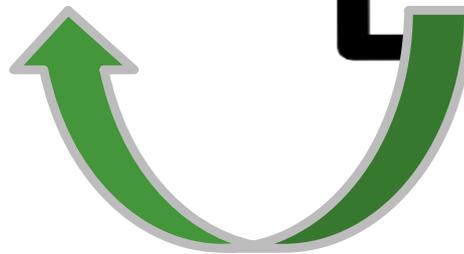
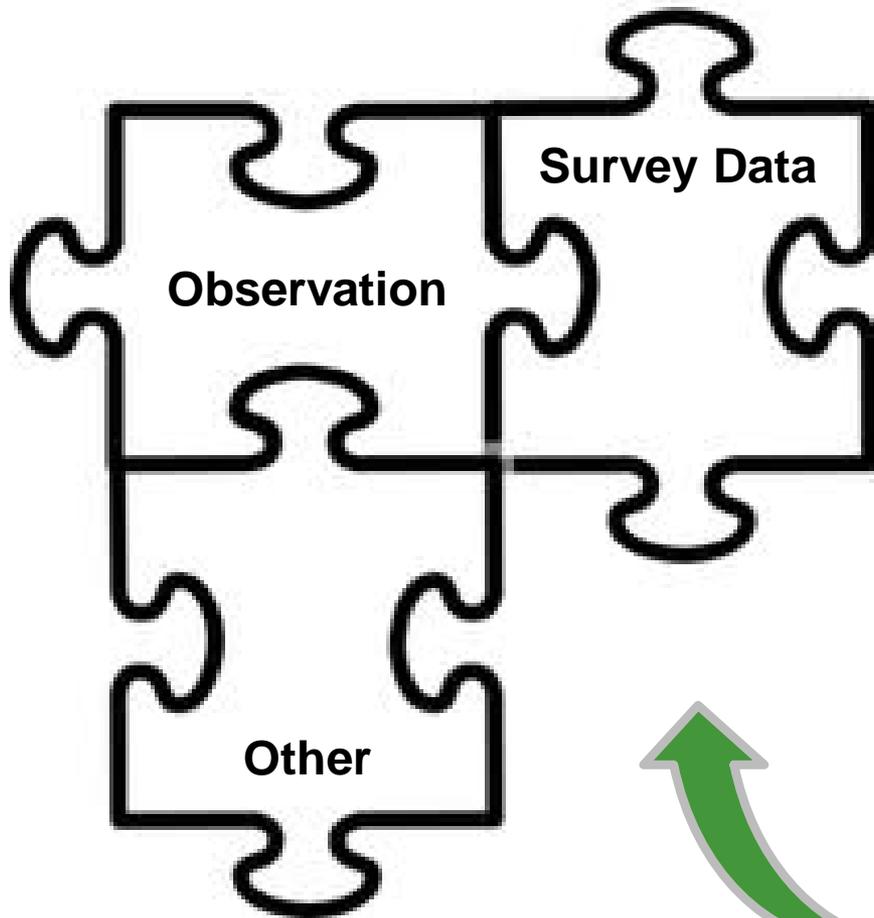


5: Includes the *state assessment where available and appropriate* and *additional district and school determined assessments*

How is student learning currently monitored or reflected upon in your school?



Current Practice?



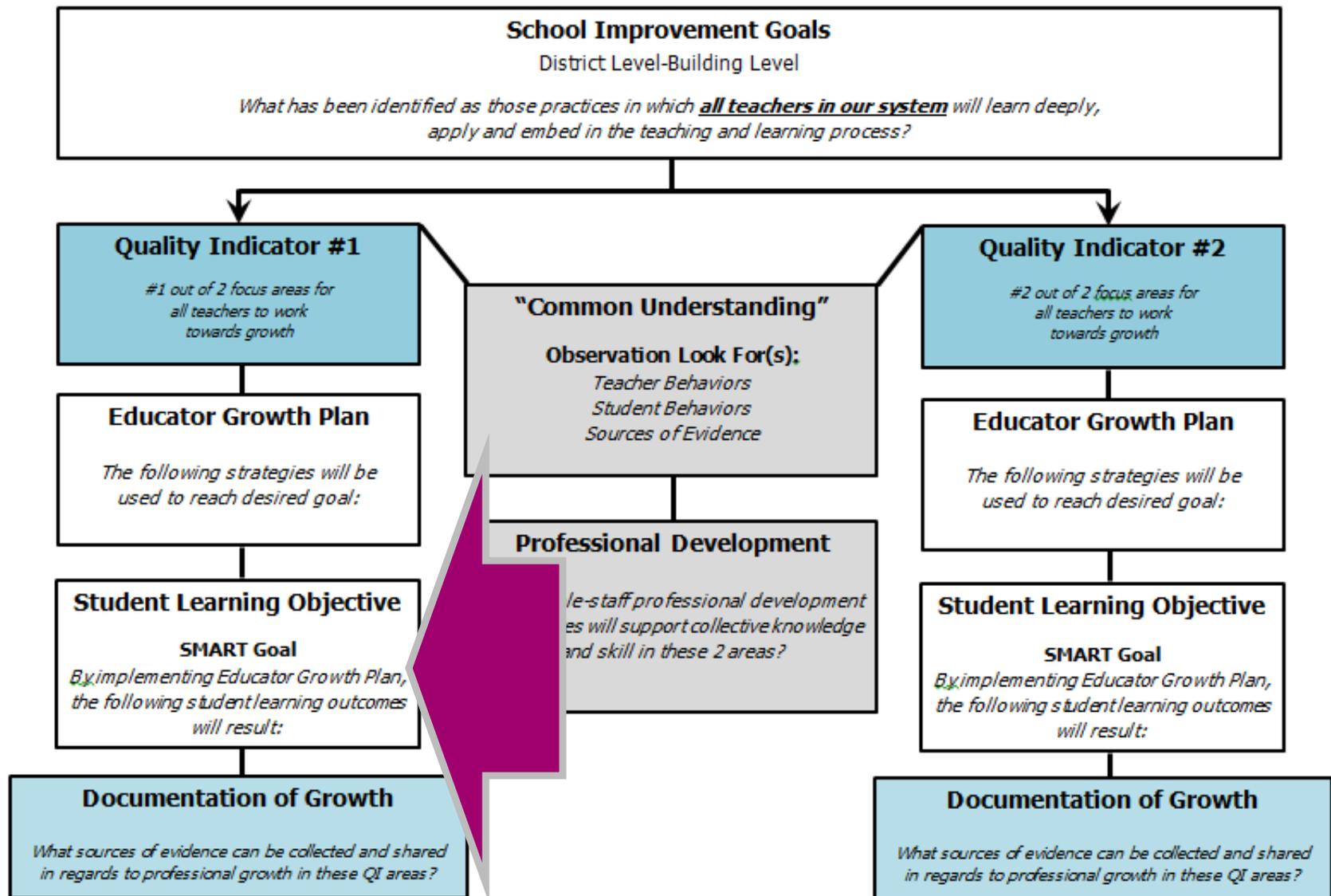
Missouri Model as Example...

Let's take a moment to connect this concept of Student Growth Measures *as "one" component* of an educator evaluation system.

What does this look like in terms of a process?

Educator Evaluation System

Manageability Consideration (System-Wide)



Educator Growth Plan*

(Missouri Model)

| | |
|--|--|
| <p>1. FOCUS <i>Based on evidence generated from the growth guide, determine strengths and a key opportunity for growth. This opportunity for growth then becomes the priority – the FOCUS – for your growth plan.</i></p> | <p>2. GOAL <i>Create a goal statement addressing the FOCUS. This goal statement should include these essential qualities: specific, measureable, achievable, relevant, and timely. What will be the result indicators?</i></p> |
| | |
| <p>3. STRATEGY <i>Describe the specific strategy(ies) to be implemented that will address the goal statement. This strategy should provide the best plan for effectively addressing the FOCUS and include clear action steps and a timeline.</i></p> | <p>4. RESULTS <i>What was the outcome of the strategy? Based on progress monitoring, provide the data that supports that the outcome of the strategy has effectively addressed the FOCUS.</i></p> |
| | <p>We are “adding” to the conversation here...moving beyond only reflecting on teacher observation experiences.</p> |

Determining Student Growth Measures

Student Growth Measures

At this time, in table teams, use the below criteria and begin to **brainstorm** possible Student Growth Measures:

| Core | Non-Core |
|------|----------|
| | |

Includes multiple measures including **formative and summative** assessments

Allows for **multiple years** of comparable student data

Highlights student growth **across two points in time**

Common benchmark and formative district-generated assessments

Individualized student growth objectives defined by the teacher

Curriculum-Based Measurements

Unit assessments

Results on pre-tests and post tests

Student work samples such as presentations, papers, projects, portfolios

Measures of Student Growth Examples

Making Purposeful Decisions (when selecting SGMs)

As school leaders, we might think about the **“end in mind”** of using student growth measures as part of the evaluation system.

Might we want to consider selecting measures which will:

-truly measure what is essential for students to master in the learning process?

-give the teacher and leader good “formative” information for future actions/goal setting...

Endures?

What skills and conceptual knowledge will students gain that *last from one academic year to the next?*

Example:

Constructing an informative essay is something that students need throughout their academic career. It is a skill that endures over time.

Non-Example:

*The same cannot be said, for example, of the requirement that a student **memorize a poem or passage.***

Essential for Progress to the Next Level of Instruction?

In a continuing dialogue with teachers at all grade levels, we must determine what is *essential for future success*.

Non-Example:

When 11th grade history teachers are asked what is essential for success in their classes, they rarely respond with items of historical knowledge that should have been memorized in middle school.

Example:

Rather, they typically respond that students should have skills in reading and writing, knowledge of map reading, and an understanding of the difference between democracy and authoritarianism.

Contributes to Understanding of Other Standards?

Standards that, once mastered, give a student the ability to use reasoning and thinking skills to learn and understand other curriculum objectives.

Example:

In a middle school mathematics class, the properties of a triangle and rectangle might be selected as standards which “contribute to the understanding of other standards”, because this understanding will allow students to comprehend information about other shapes – such as rhombus, trapezoid, parallelogram...

Something to Consider...

If we take the time to ensure we are teaching to and monitoring the learning which has the following characteristics:

- 1) endurance
- 2) essential for progress to the next level
- 3) contributes to the understanding of other standards

"The "Safety Net" Curriculum" by Douglas B. Reeves, Ph.D., in Power Standards: Identifying the Standards that Matter the Most, Larry Ainsworth, Advanced Learning Press, 2003.

Something to Consider...

Then we will have a better chance of ensuring that the reflective conversations within the educator evaluation system will have a significant impact on:

- ✓ *student learning*
- ✓ *teacher growth and development*

Let's Go Back and Check...

Do the example measures in which you brainstormed have the potential to measure the following:

| | |
|--------------------------|--|
| Endurance | What skills and knowledge will students gain that last from one academic year to the next? |
| Essential | What skills are essential for progress to the next level of instruction? |
| Contributes to... | What skills will contribute to understanding of other standards? |



Multiple Measures:

- End of Course Assessment
- Unit Assessment (Pre-Post)
- The Constitution

**Example:
American Government**



Multiple Measures:

- MAP (ELA and MA)
- Reading Comprehension Benchmark Assessment
- Mathematics Fluency

Example: Grade 3



Multiple Measures:

- Disease Prevention Presentation
- Nutritional Goal Plan
- Unit Tests (specific standards)

Example: Health Education

Multiple Measures:

- Performance Event
- Portfolio
- Unit Tests



Example: Art I

Student Growth Measure "List of Examples"

**Massachusetts
Department of Elementary and Secondary Education**

**Full List of Example Assessments for use as District-
Determined Measures**

<http://www.doe.mass.edu/eval/ddm/example/fulllist.html>

Step 1:

Identify the *assessments or evidence sources* that could be used as student growth measures within your school setting.

Action Plan*

Value-Added Approach:
Missouri Growth Model

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Missouri Growth Model

For those teachers who are involved in state assessment...

What is the process for incorporating this type of data?

Please Understand...

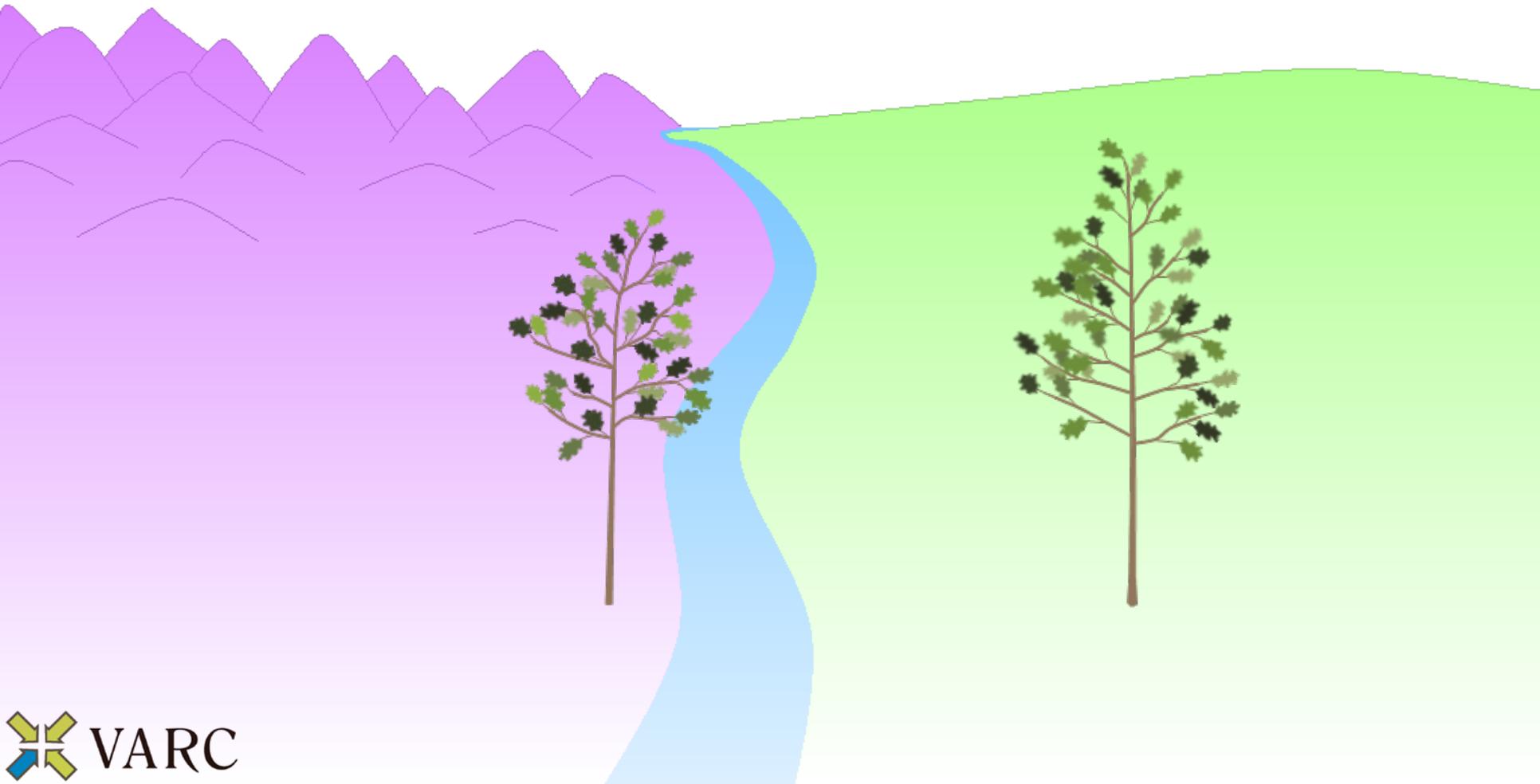
The “What” and “So What”:

To facilitate awareness of how the state department will be determining "growth" on the state assessment so that districts can thoughtfully address critical component #6

Non-purpose:

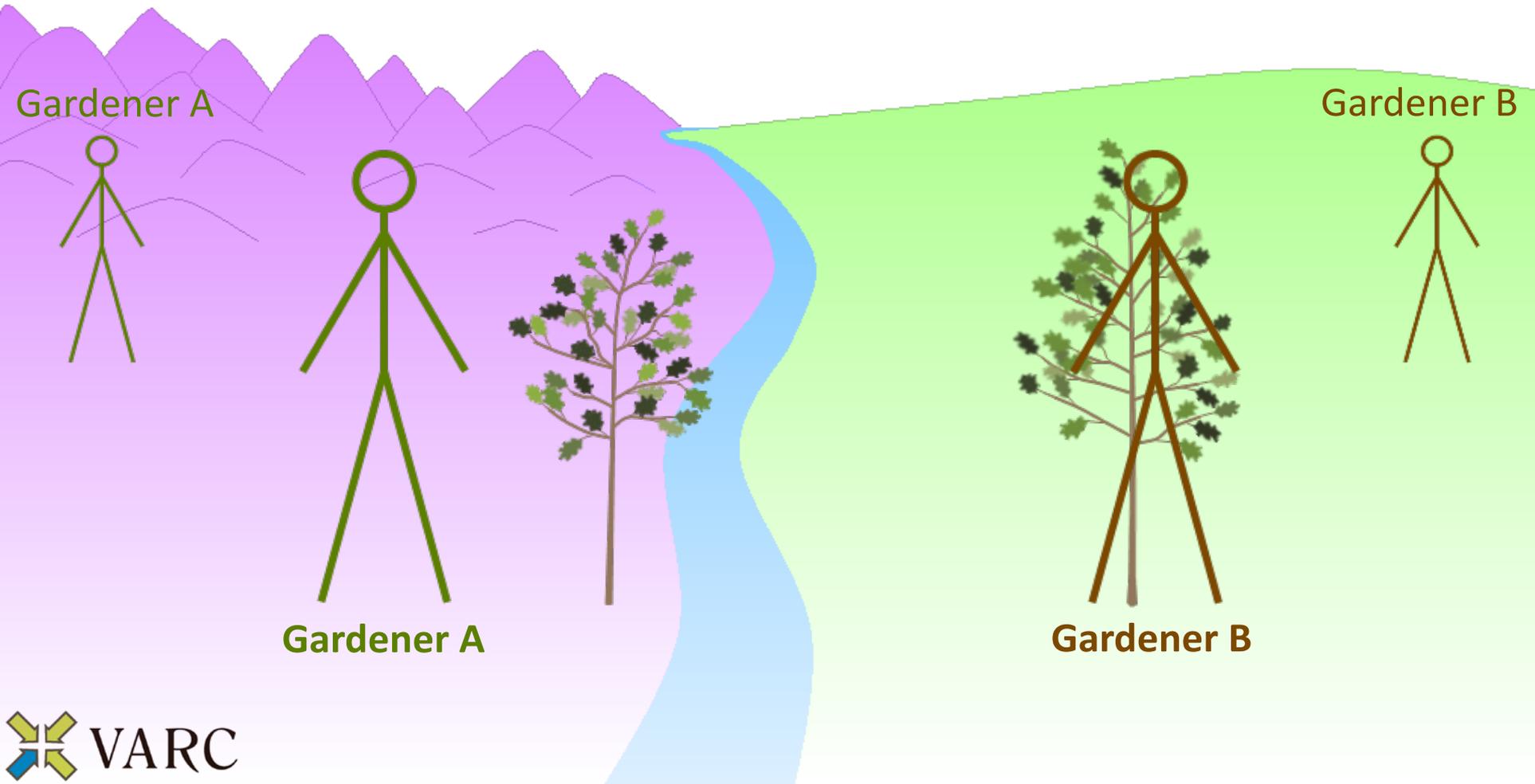
To overwhelm you with technical procedures...as these reports will be provided for you.

The Oak Tree Analogy



Explaining the concept of value added by evaluating the performance of two gardeners

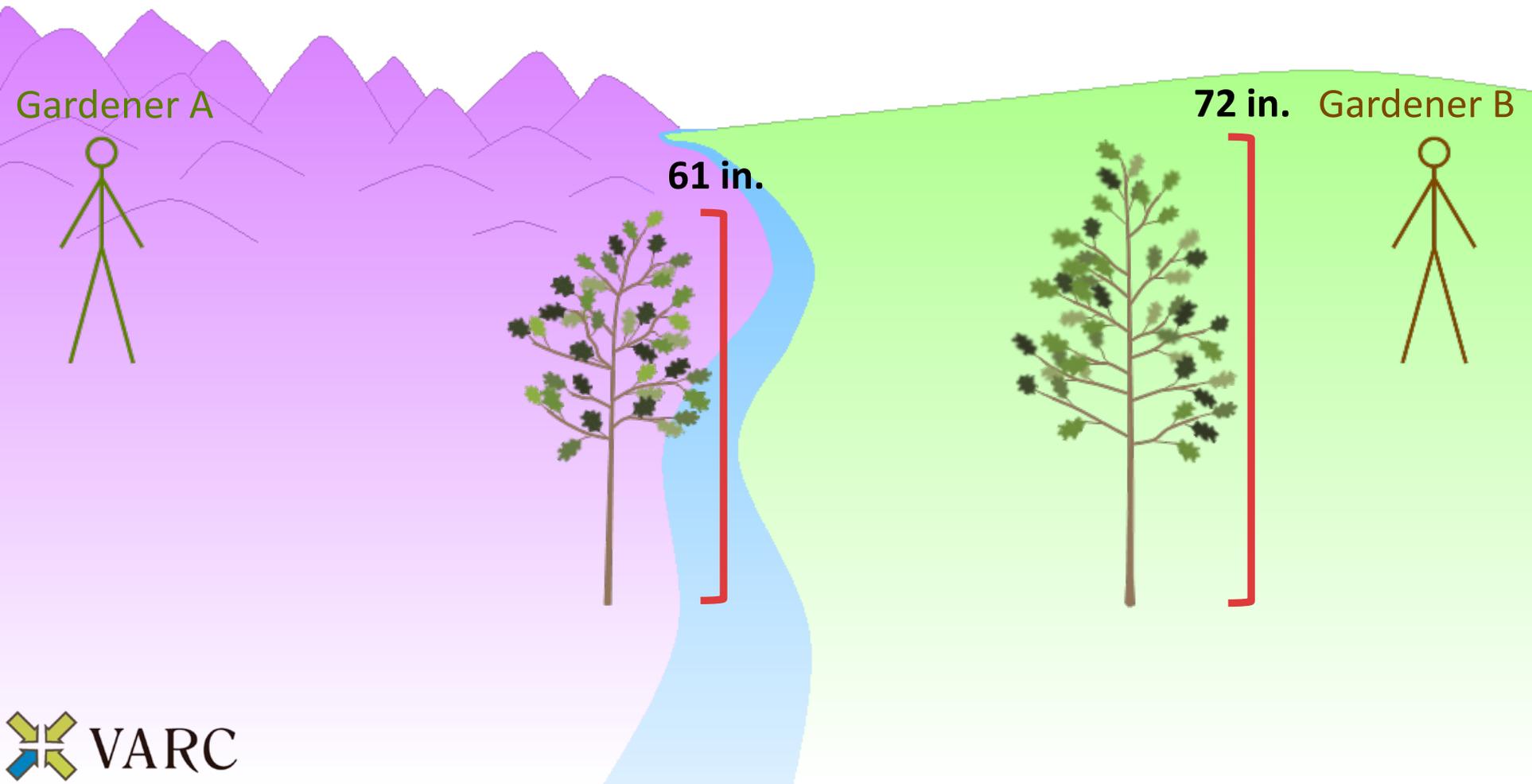
- For the past year, these gardeners have been tending to their oak trees trying to maximize the height of the trees.
- Each gardener used a variety of strategies to help their own tree grow... which of these two gardeners was more successful with their strategies?



To measure the performance of the gardeners, we will measure the height of the trees today (1 year after they began tending to the trees).

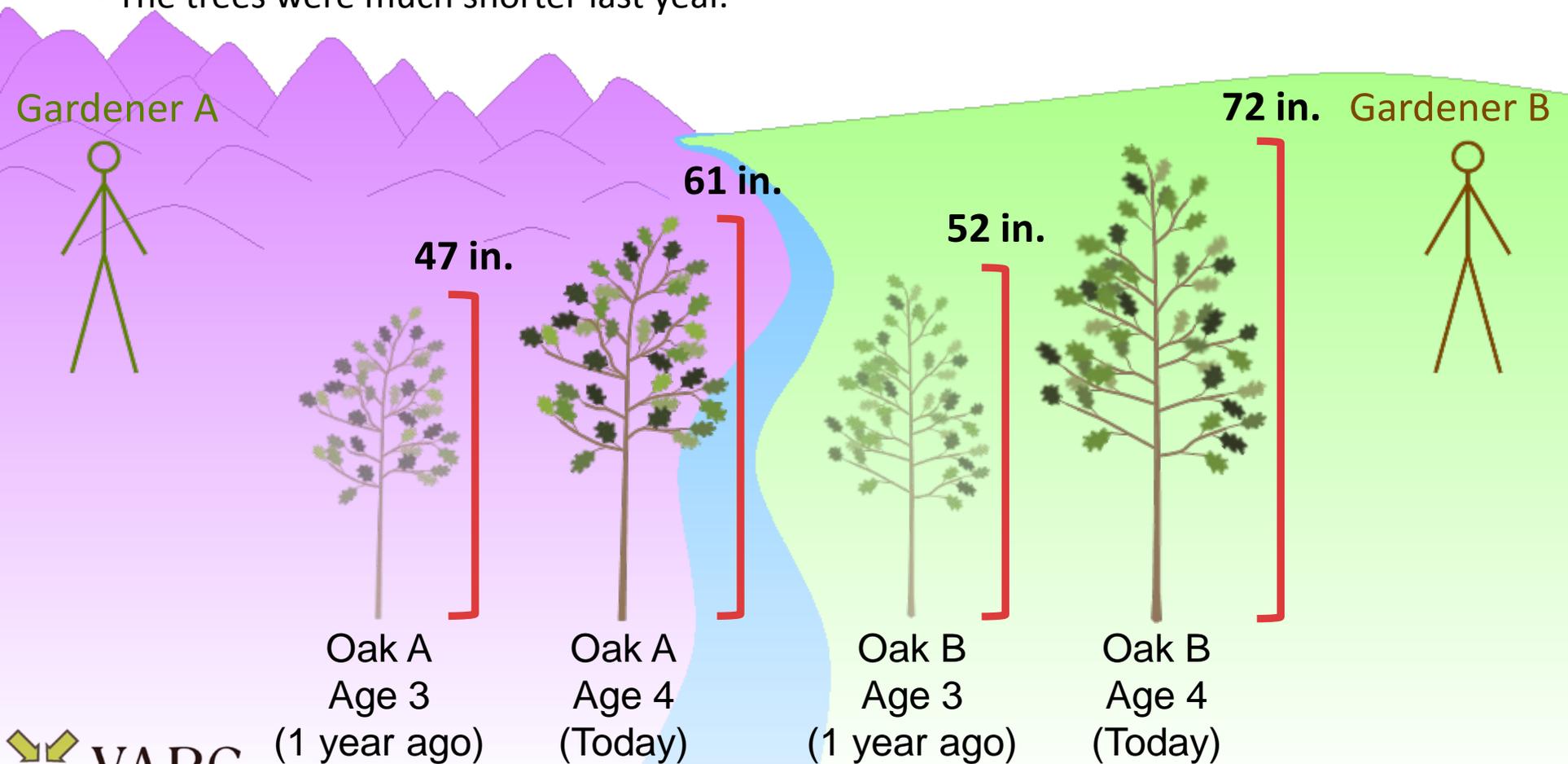
- Using this method, **Gardener B** is the better gardener.

This method is analogous to using an **Achievement Model**.



... but this **achievement** result does not tell the whole story.

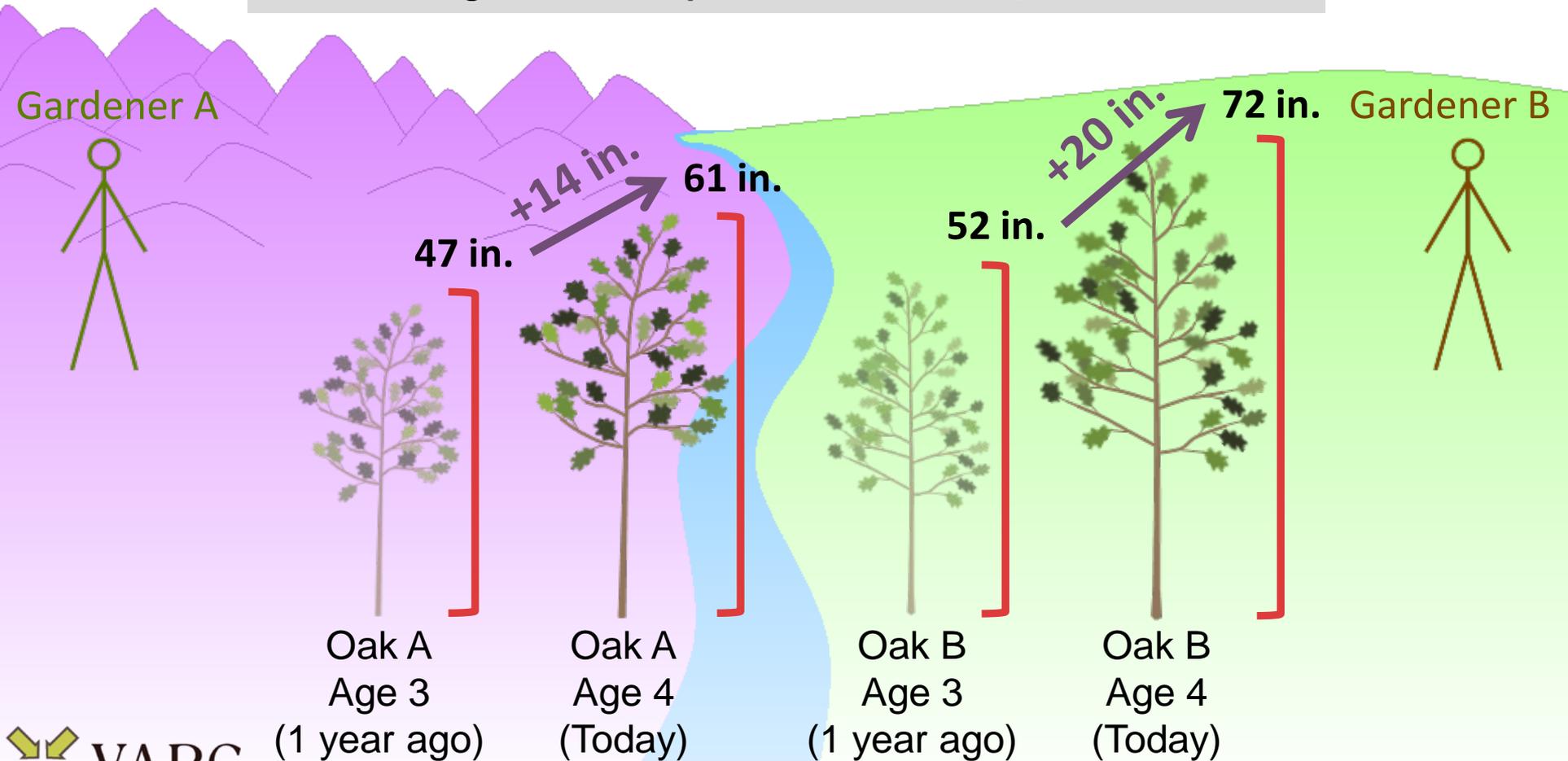
- These trees are 4 years old.
- We need to find the starting height for each tree in order to more fairly evaluate each gardener's performance during the past year.
- The trees were much shorter last year.



We can compare the height of the trees one year ago to the height today.

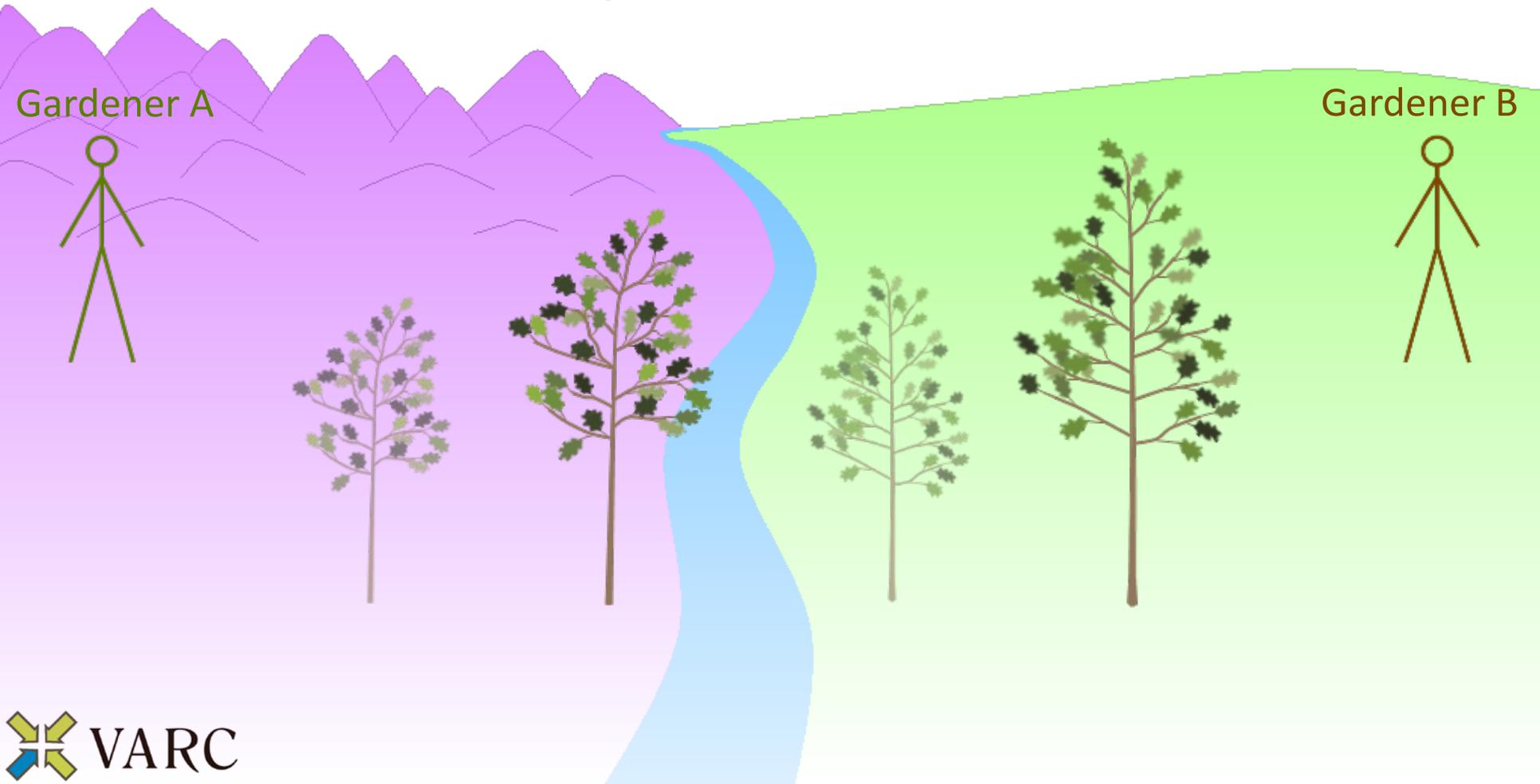
- By finding the difference between these heights, we can determine how many inches the trees grew during the year of gardener's care.
- Oak B had more growth this year, so **Gardener B** is the better gardener.

This is analogous to a **Simple Growth Model**, also called **Gain**.

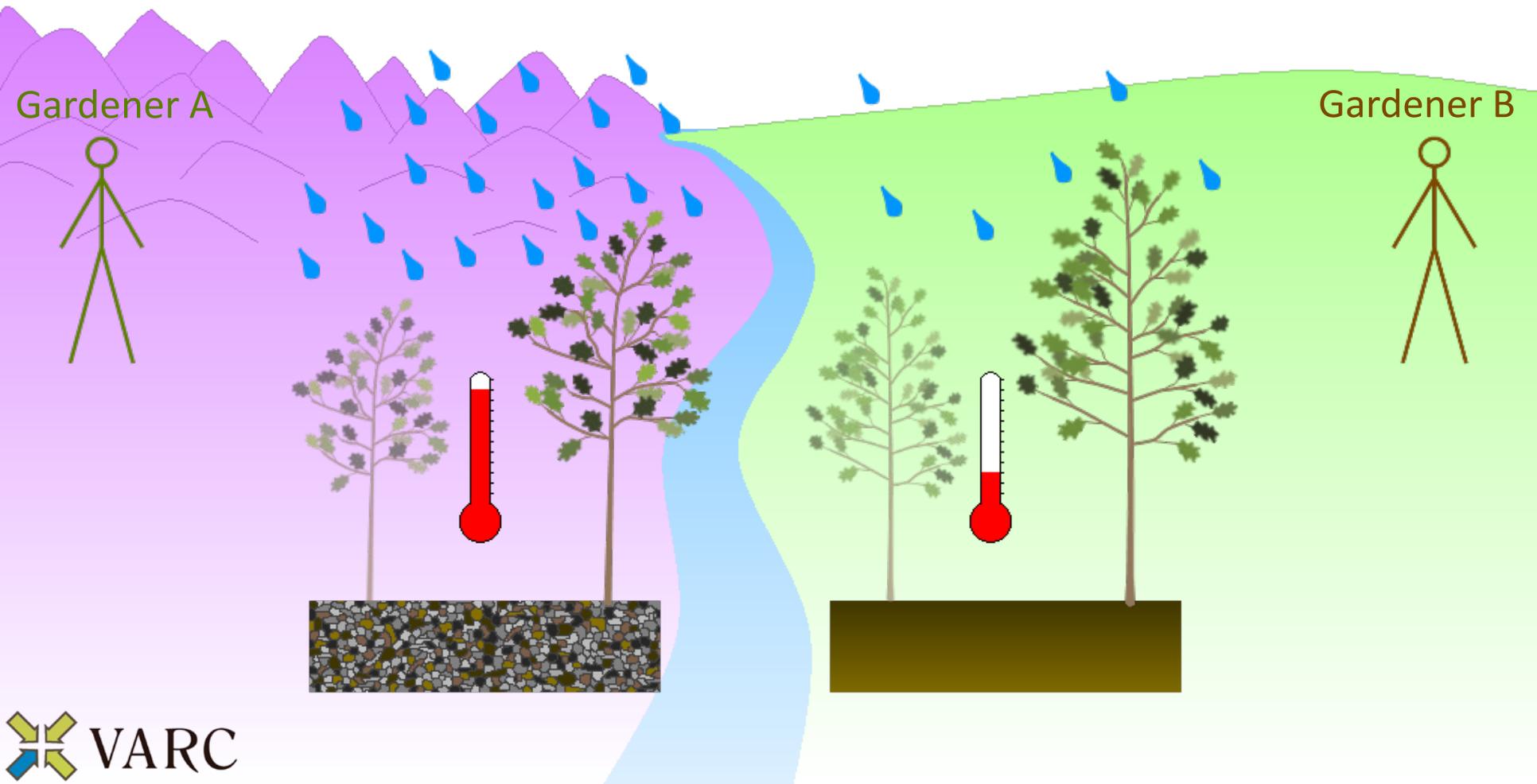


... but this **simple growth** result does not tell the whole story either.

- We do not yet know how much of this growth was due to the strategies used by the gardeners themselves.
- This is an “apples to oranges” comparison.
- For our oak tree example, three environmental factors we will examine are:
Rainfall, **Soil Richness**, and **Temperature**.

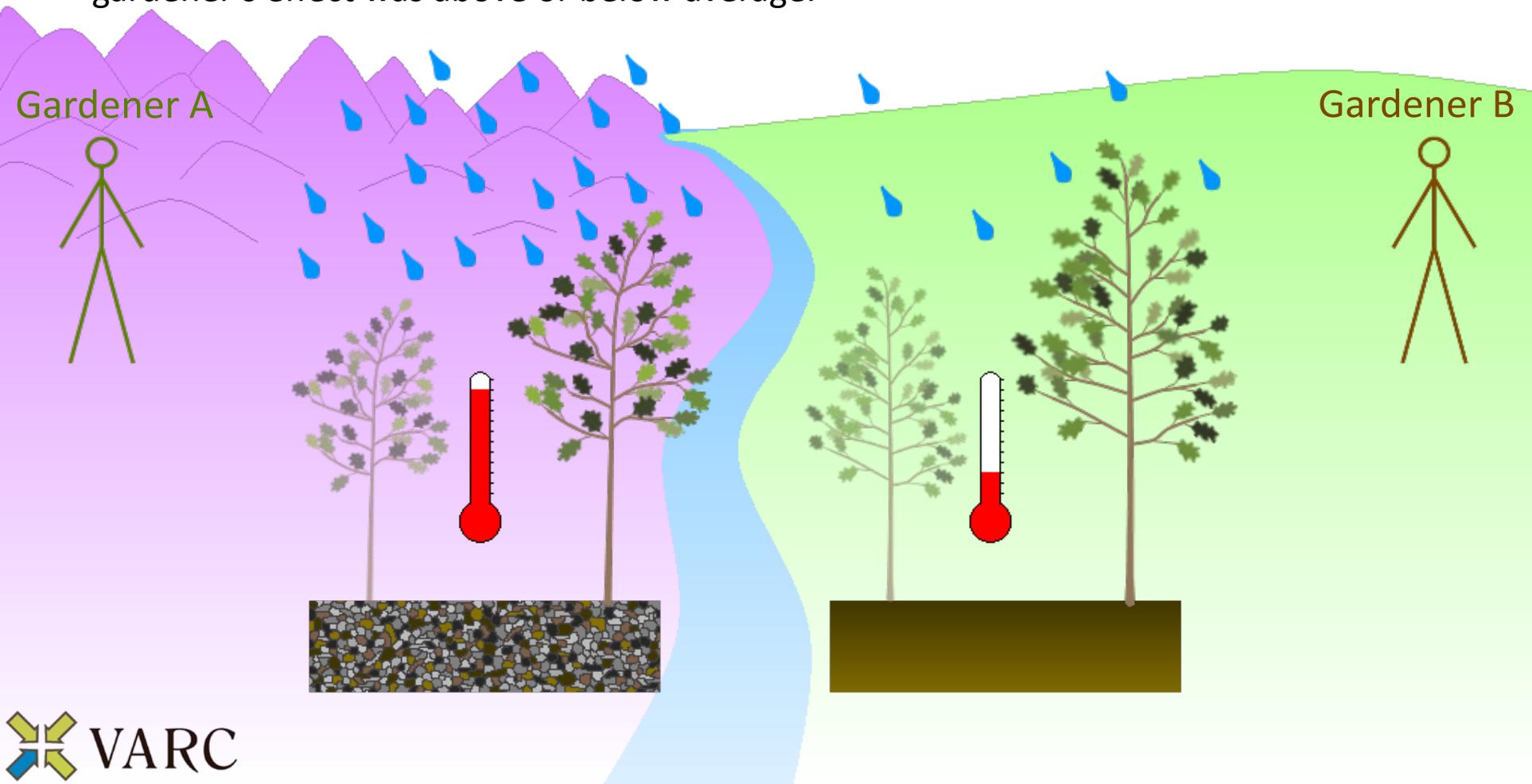


| External condition | Oak Tree A | Oak Tree B |
|--------------------|------------|------------|
| Rainfall amount | High | Low |
| Soil richness | Low | High |
| Temperature | High | Low |

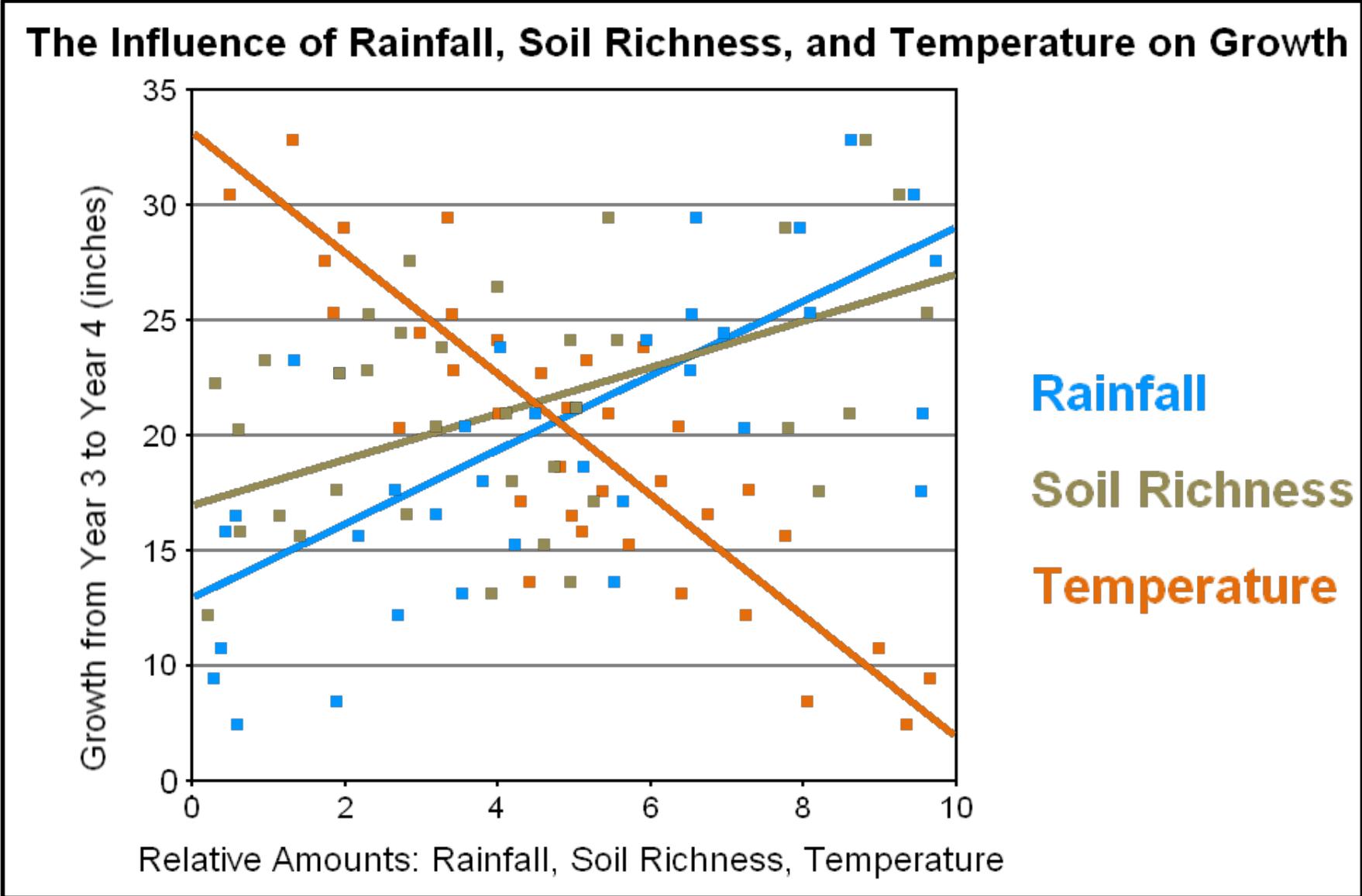


We can use this information to calculate a predicted height for each tree today if it was being cared for by an average gardener in the area...

- We examine all oaks in the region to find an average height improvement for trees.
- We adjust this prediction for the effect of each tree's environmental conditions.
- We compare the actual height of the trees to their predicted heights to determine if the gardener's effect was above or below average.



In order to find the impact of **rainfall**, **soil richness**, and **temperature**, we will plot the growth of each individual oak in the region compared to its environmental conditions.



Now that we have identified growth trends for each of these environmental factors, we need to convert them into a form usable for our predictions.

| Rainfall | Low | Medium | High |
|---|------------|---------------|-------------|
| Growth in inches relative to the average | -5 | -2 | +3 |

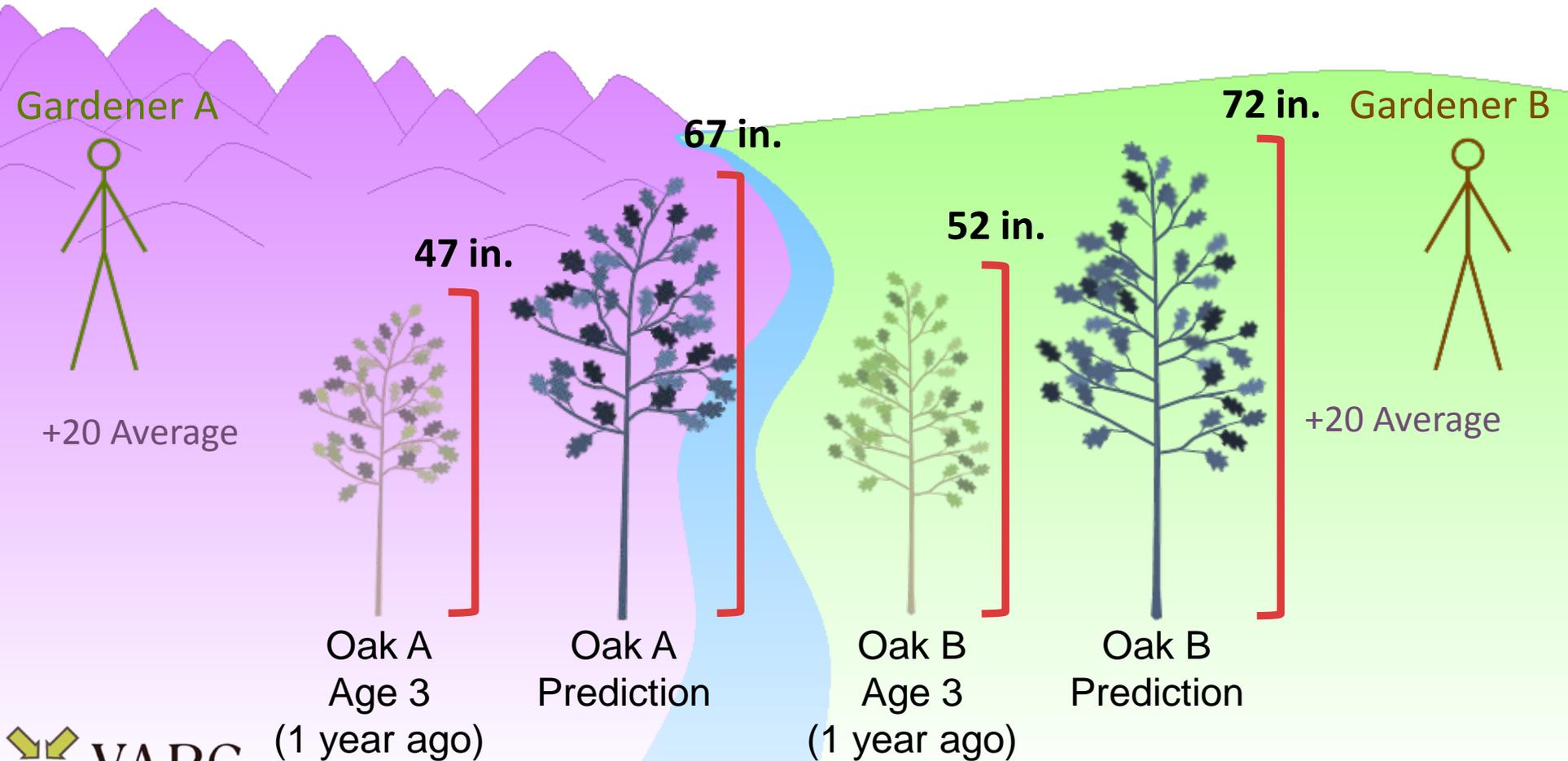
| Soil Richness | Low | Medium | High |
|---|------------|---------------|-------------|
| Growth in inches relative to the average | -3 | -1 | +2 |

| Temperature | Low | Medium | High |
|---|------------|---------------|-------------|
| Growth in inches relative to the average | +5 | -3 | -8 |

Now we can go back to **Oak A** and **Oak B** to adjust for their growing conditions.

To make our initial prediction, we use the average height improvement for all trees

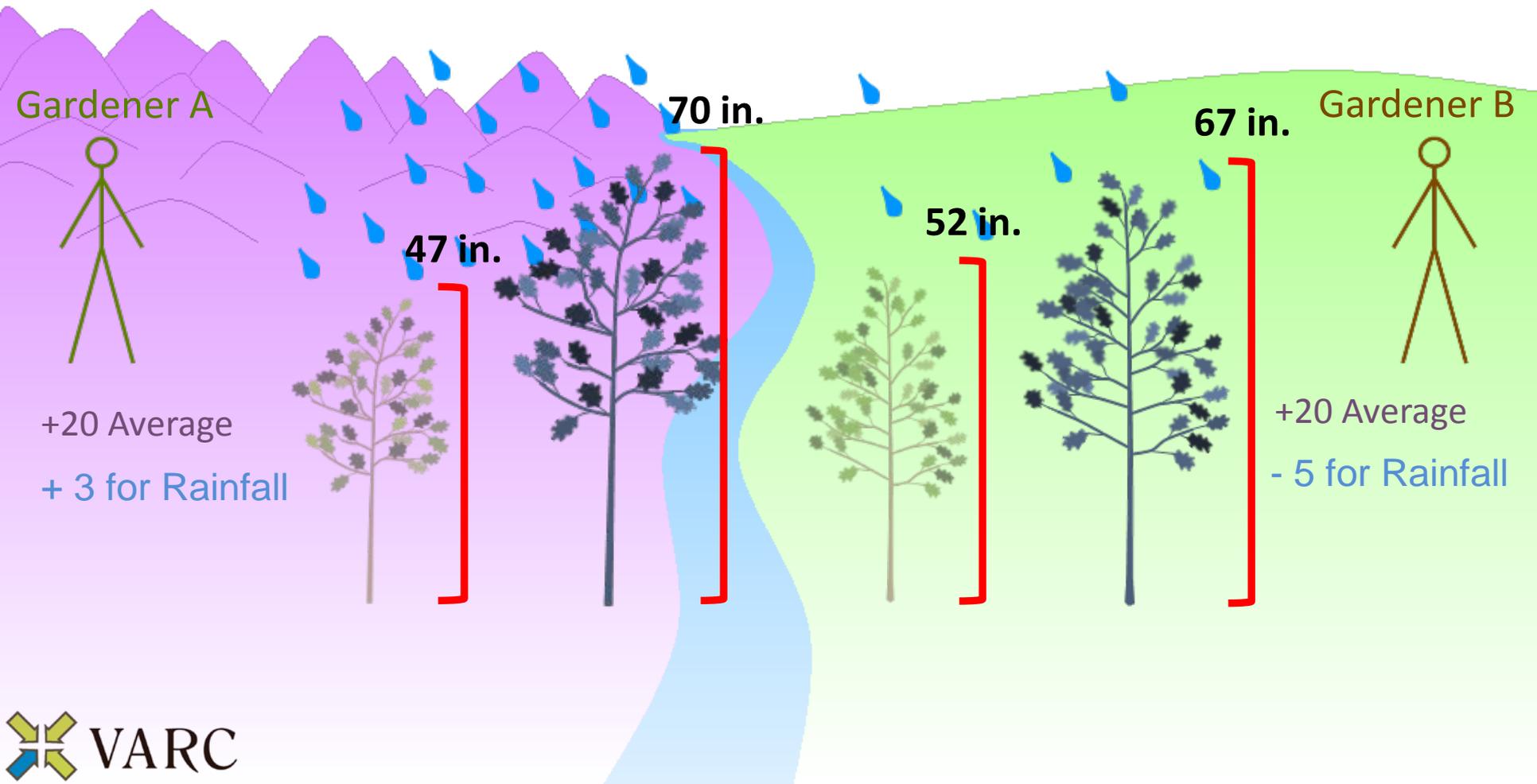
- Based on our data, the average improvement for oak trees in the region was 20 inches during the past year.
- We start with the trees' height at age 3 and add 20 inches for our initial prediction.
- Next, we will refine our prediction based on the growing conditions for each tree. When we are done, we will have an “apples to apples” comparison of the gardeners' effect.



Based on data for all oak trees in the region, we found that high rainfall resulted in 3 inches of extra growth on average.

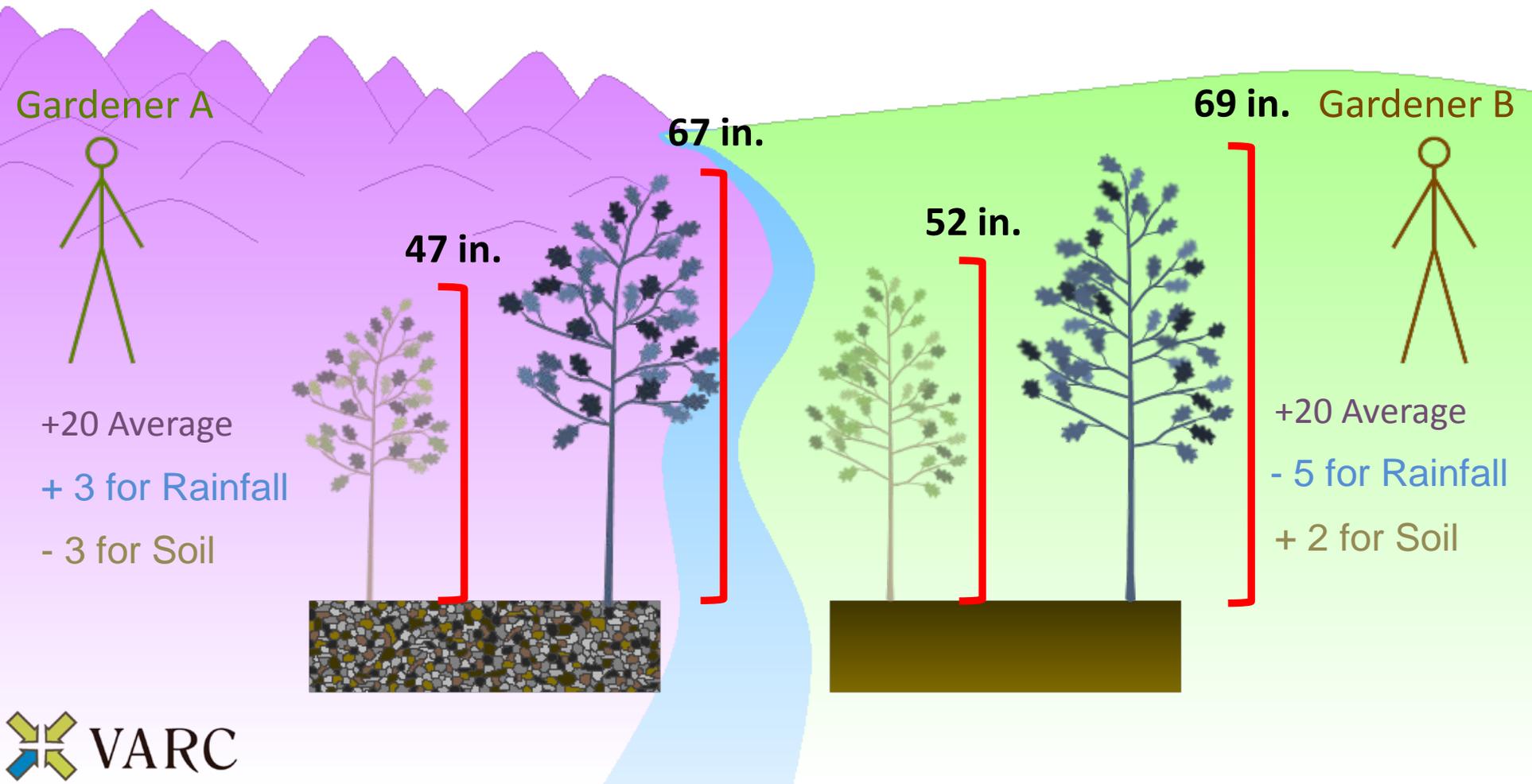
For having high rainfall, Oak A's prediction is adjusted by +3 to compensate.

Similarly, for having low rainfall, Oak B's prediction is adjusted by -5 to compensate.



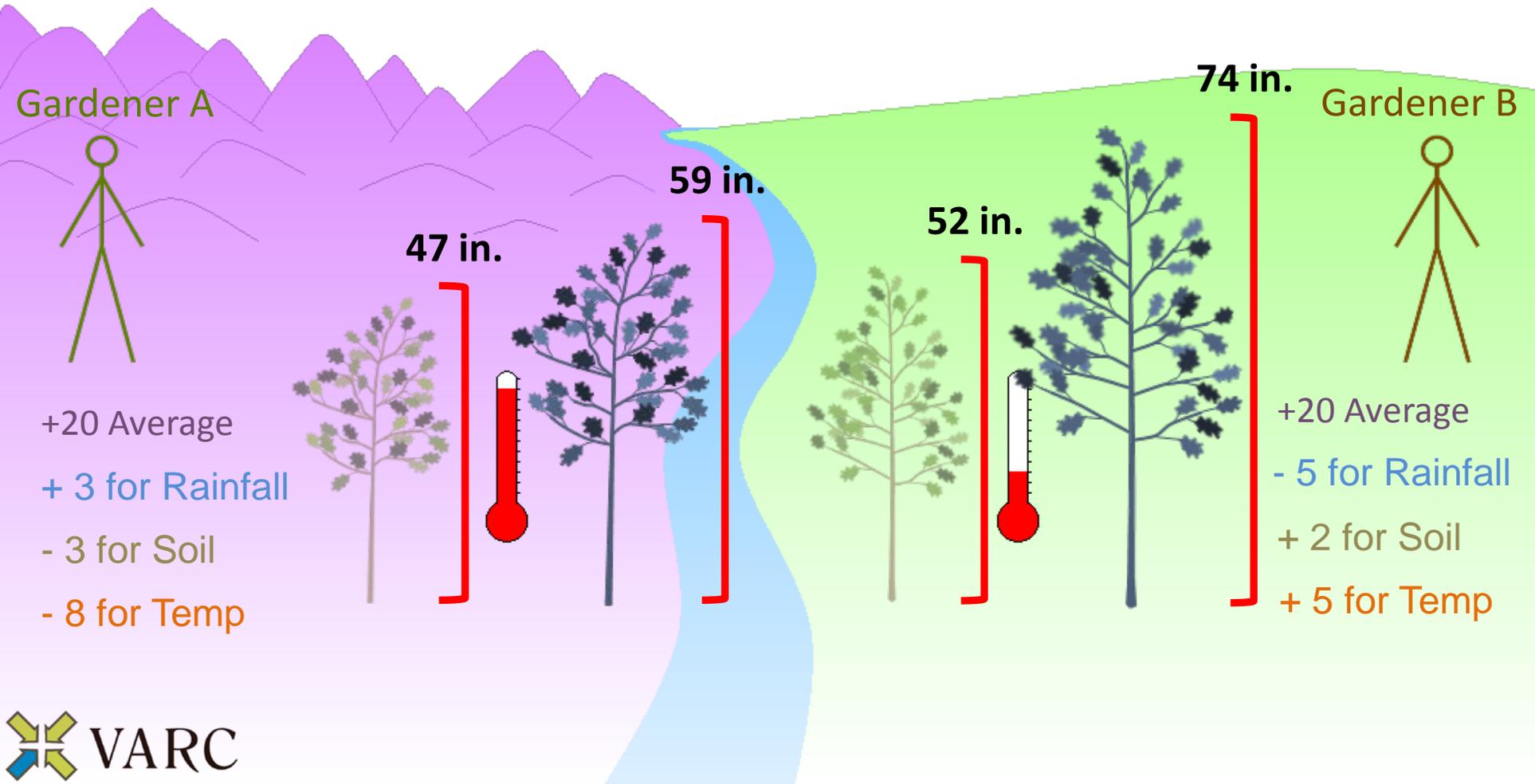
For having poor soil, Oak A's prediction is adjusted by -3.

For having rich soil, Oak B's prediction is adjusted by +2.



For having high temperature, Oak A's prediction is adjusted by -8.

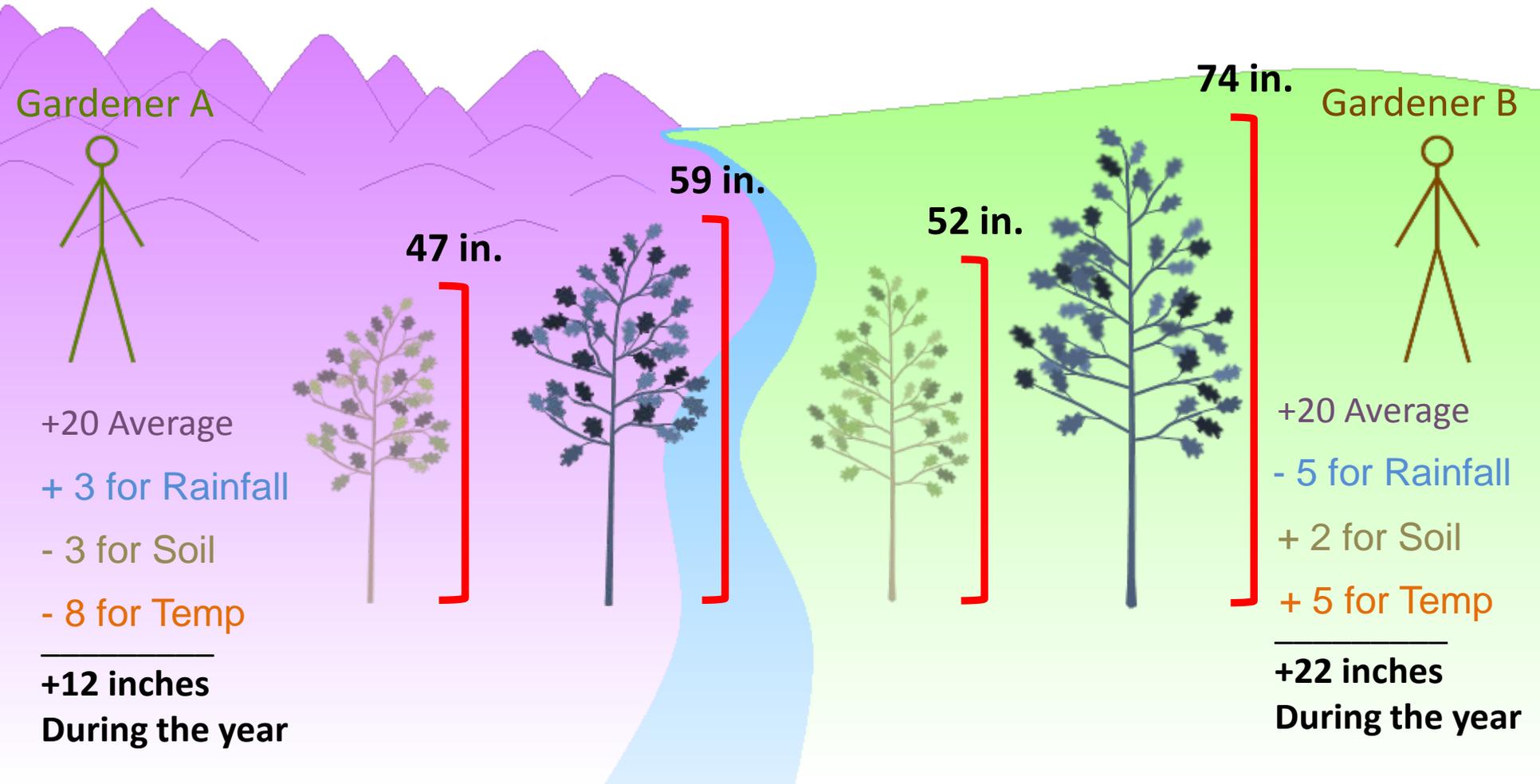
For having low temperature, Oak B's prediction is adjusted by +5.



Now that we have refined our predictions based on the effect of environmental conditions, our gardeners are on a level playing field.

The predicted height for trees in Oak A's conditions is 59 inches.

The predicted height for trees in Oak B's conditions is 74 inches.



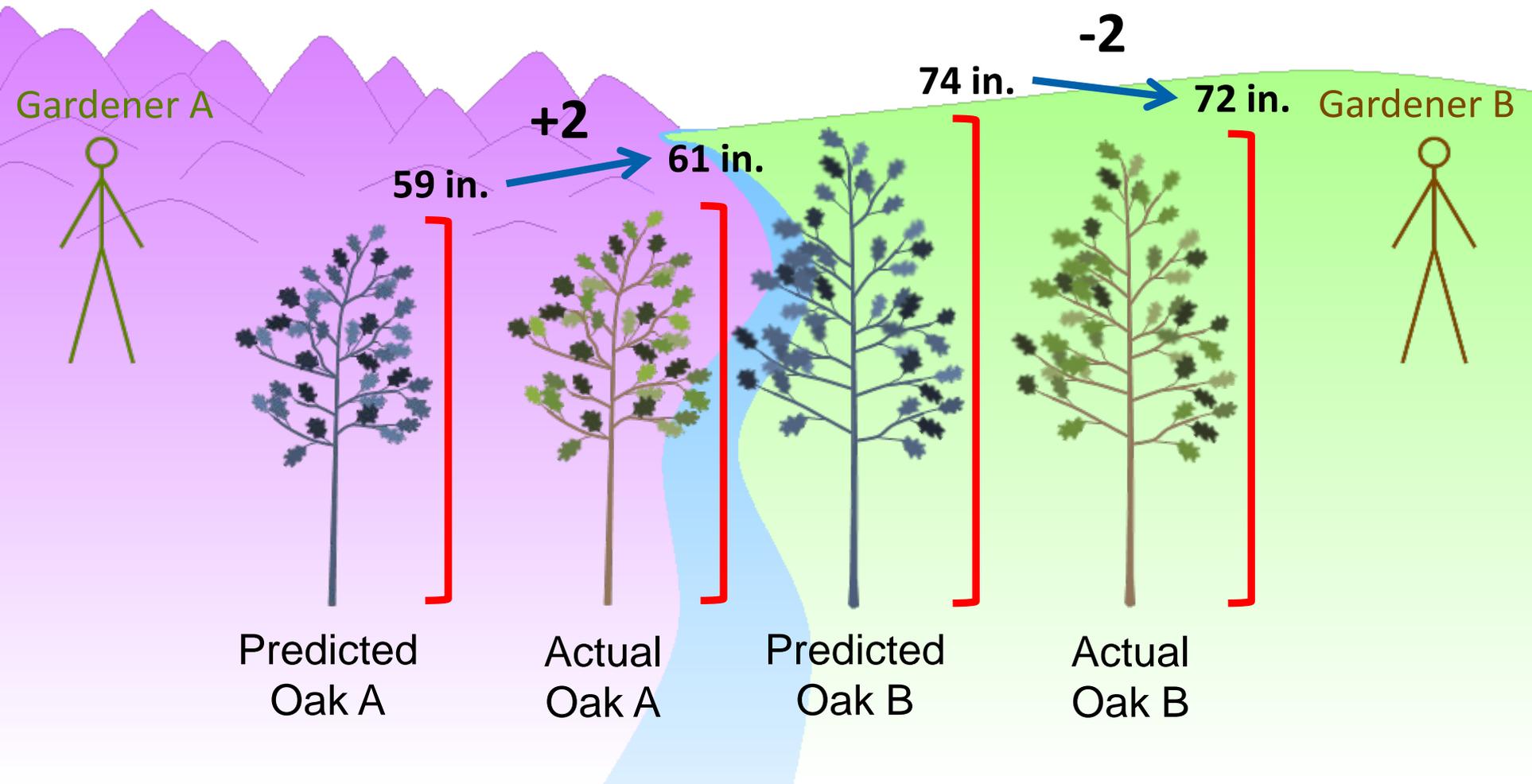
Finally, we compare the actual height of the trees to our predictions.

Oak A's actual height of 61 inches is 2 inches **more** than we predicted.

We attribute this above-average result to the effect of Gardener A.

Oak B's actual height of 72 inches is 2 inches **less** than we predicted.

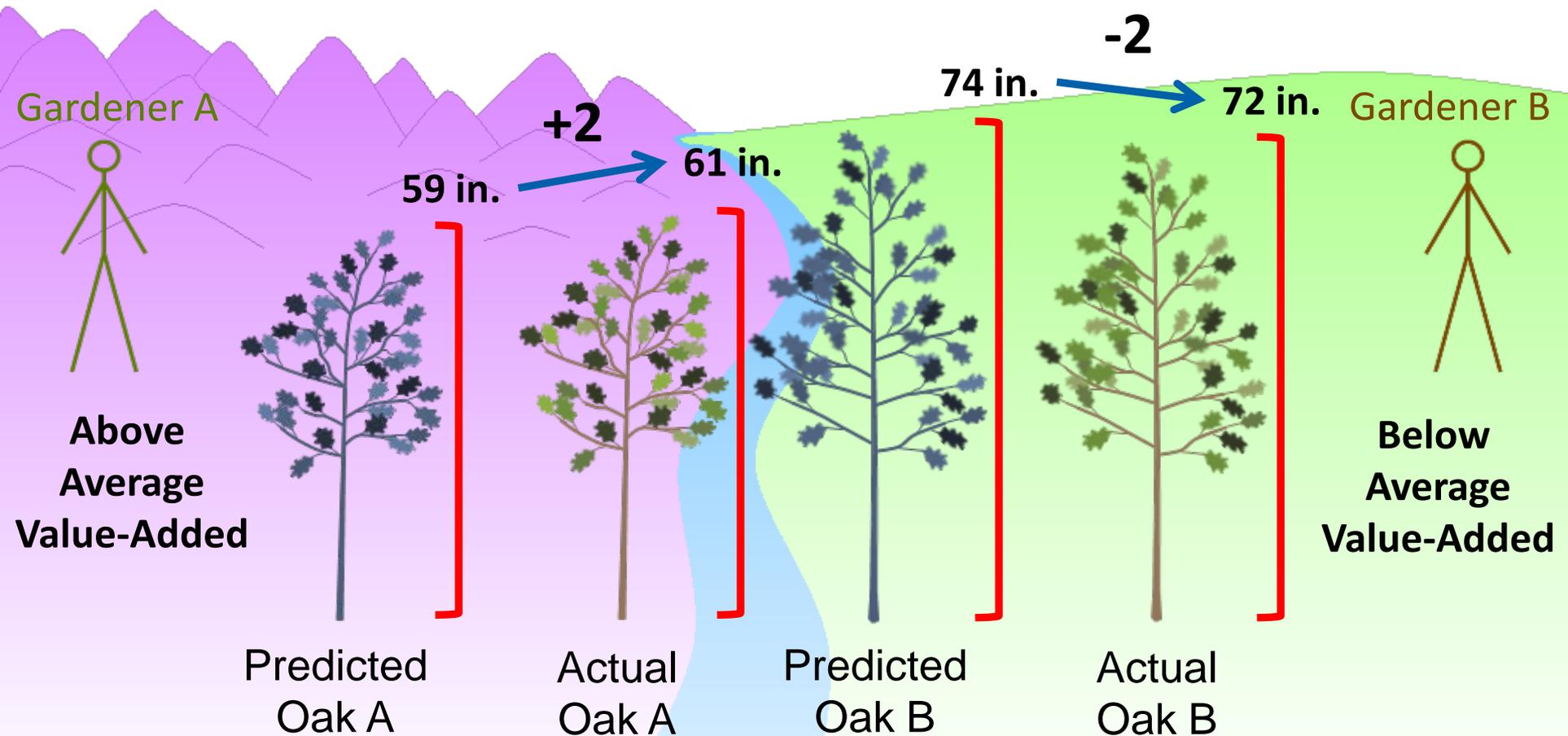
We attribute this below-average result to the effect of Gardener B.



Using this method, **Gardener A** is the superior gardener.

By accounting for last year's height and environmental conditions of the trees during this year, we found the "value" each gardener "added" to the growth of the tree.

This is analogous to a **Value-Added measure**



How does this analogy relate to value added in the education context?

| | Oak Tree Analogy | Value-Added in Education |
|--|--|---|
| What are we evaluating? | <ul style="list-style-type: none"> • Gardeners | <ul style="list-style-type: none"> • Districts • Schools • Grades • Classrooms • Programs and Interventions |
| What are we using to measure success? | <ul style="list-style-type: none"> • Relative height improvement in inches | <ul style="list-style-type: none"> • Relative improvement on standardized test scores |
| Sample | <ul style="list-style-type: none"> • Single oak tree | <ul style="list-style-type: none"> • Groups of students |
| Control factors | <ul style="list-style-type: none"> • Rainfall • Soil richness • Temperature | <ul style="list-style-type: none"> • Students' prior test performance (usually most significant predictor) • Other demographic characteristics such as: <ul style="list-style-type: none"> • Grade level • Gender • Race / Ethnicity • Low-Income Status • ELL Status • IEP Status • Homelessness • Mobility |

Missouri Growth Model

Purpose for this model includes:

- Measuring district-level growth *against a standard* tied to state targets
- Using student-level results to *inform classroom practice*
- Providing districts with growth data to *incorporate into* their educator evaluation systems
- Providing growth data for the *educator preparation program accreditation process*

Benefits of Value-Added Model

- Positive *correlation between* student growth measures and other measures of teacher performance (e.g. instructional practice, principal evaluations).
- Evidence that teachers with high value-added scores *do something different* (as measured through observations) than teachers with low value-added scores.
- Evidence that teachers with high value-added scores have a *positive effect on future student achievement* and other long-term outcomes.

Weber & Lempke (2011)

A Presentation to the Washington State House of Representatives Education Committee

American Institutes of Research

Sample Data Report

1

| Student ID | Exam Year | Exam Grade | Previous year math score (NCE units) | Predicted current year math score (NCE units) | Observed current year math score (NCE units) | Residual (NCE units) | American Indian (=1) | Asian (=1) | Black (=1) | Hispanic (=1) | Multi-Race (=1) | FRL Eligible (=1) | Female (=1) | IEP Flagged (=1) | English as a Second Language (=1) | Student was in building where tested for less than the full school year (=1) | Super-subgroup (=1) |
|------------|-----------|------------|--------------------------------------|---|--|----------------------|----------------------|------------|------------|---------------|-----------------|-------------------|-------------|------------------|-----------------------------------|--|---------------------|
| 999487625 | 2010 | 04 | 56.1 | 55.3 | 72.5 | 67.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 999487625 | 2011 | 05 | 72.5 | 65.8 | 72.5 | 56.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 999487625 | 2012 | 06 | 72.7 | 66.2 | 55.3 | 39.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 888487625 | 2010 | 05 | 39.5 | 35.5 | 47.5 | 62.0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 888487625 | 2011 | 06 | 47.3 | 41.2 | 46.6 | 55.5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 888487625 | 2012 | 07 | 46.6 | 40.3 | 42.8 | 52.5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 777487625 | 2010 | 06 | 53.8 | 48.3 | 59.3 | 61.0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| 777487625 | 2011 | 07 | 59.1 | 55.5 | 43.7 | 38.2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| 777487625 | 2012 | 08 | 43.5 | 45.2 | 44.5 | 49.4 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |

*Note: Achievement data in this report will be in “NCE” units, which resemble percentiles, but can be meaningfully averaged while percentiles cannot. For the residuals—

- ❑ NCE of 50 indicates performance that met expectation or prediction;
- ❑ NCE above 50 indicates performance exceeded prediction or over-performing; and
- ❑ NCE below 50 indicates performance fell below prediction or under-performing



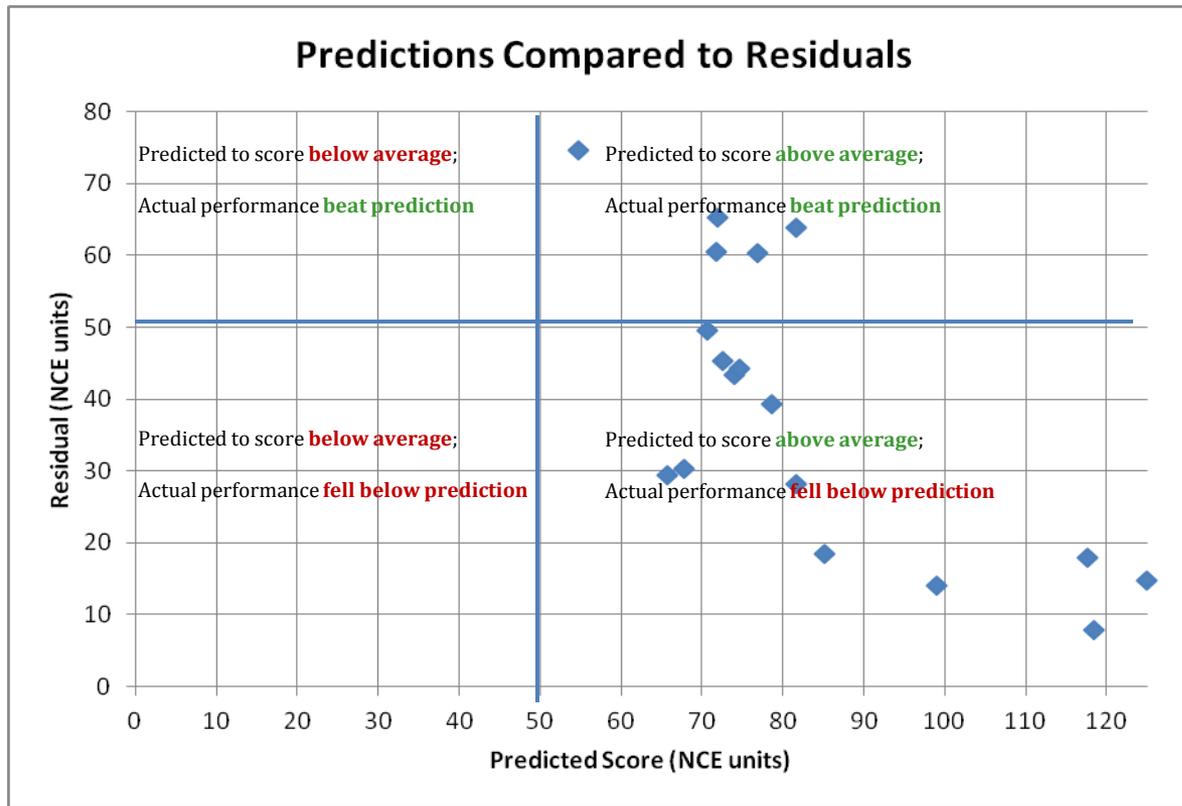
Ex.) Mrs. Smith's 5th Grade Students

| Student ID | Exam Year | Exam Grade | Previous year math score (NCE units) | Predicted current year math score (NCE units) | Observed current year math score (NCE units) | Residual (NCE units) | American Indian (=1) | Asian (=1) | Black (=1) | Hispanic (=1) | Multi-Race (=1) | FRL Eligible (=1) | Female (=1) | IEP Flagged (=1) | English as a Second Language (=1) | Student was in building where tested for less than the full school year (=1) | Super-subgroup (=1) |
|------------|-----------|------------|--------------------------------------|---|--|----------------------|----------------------|------------|------------|---------------|-----------------|-------------------|-------------|------------------|-----------------------------------|--|---------------------|
| 1201584660 | 2012 | 05 | 72.6 | 76.9 | 87.2 | 60.3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 2264033293 | 2012 | 05 | 74.5 | 67.8 | 48.1 | 30.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9616980865 | 2012 | 05 | 86.6 | 78.6 | 67.9 | 39.3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 4384716091 | 2012 | 05 | 102.5 | 99.0 | 63.0 | 14.0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2850256300 | 2012 | 05 | 77.5 | 72.0 | 87.2 | 65.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6734811894 | 2012 | 05 | 66.5 | 65.8 | 45.1 | 29.4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2856304259 | 2012 | 05 | 144.5 | 117.7 | 85.7 | 18.0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 4614013981 | 2012 | 05 | 60.4 | 54.7 | 79.3 | 74.6 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 2212764205 | 2012 | 05 | 78.1 | 72.5 | 67.9 | 45.4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 1134468727 | 2012 | 05 | 71.4 | 70.7 | 70.4 | 49.6 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 2435958350 | 2012 | 05 | 144.5 | 118.5 | 76.3 | 7.9 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 1465337416 | 2012 | 05 | 70.2 | 71.8 | 82.3 | 60.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 5856878993 | 2012 | 05 | 144.5 | 124.9 | 89.7 | 14.8 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 3675861126 | 2012 | 05 | 66.5 | 74.0 | 67.4 | 43.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3764829920 | 2012 | 05 | 70.2 | 74.6 | 68.9 | 44.3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 6984106711 | 2012 | 05 | 89.7 | 85.1 | 53.6 | 18.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3306210873 | 2012 | 05 | 81.8 | 81.7 | 60.0 | 28.3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 9266798379 | 2012 | 05 | 83.6 | 81.7 | 95.6 | 63.9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

After receiving its 2012 math assessment data, Anytown R-V was able to find growth results for Mrs. Smith's 5th grade classroom of 18 students. The average NCE of these students' residuals was 39.3. However, the residuals making up this average are all spread out, ranging from a low of 7.9 to a high of 74.6.



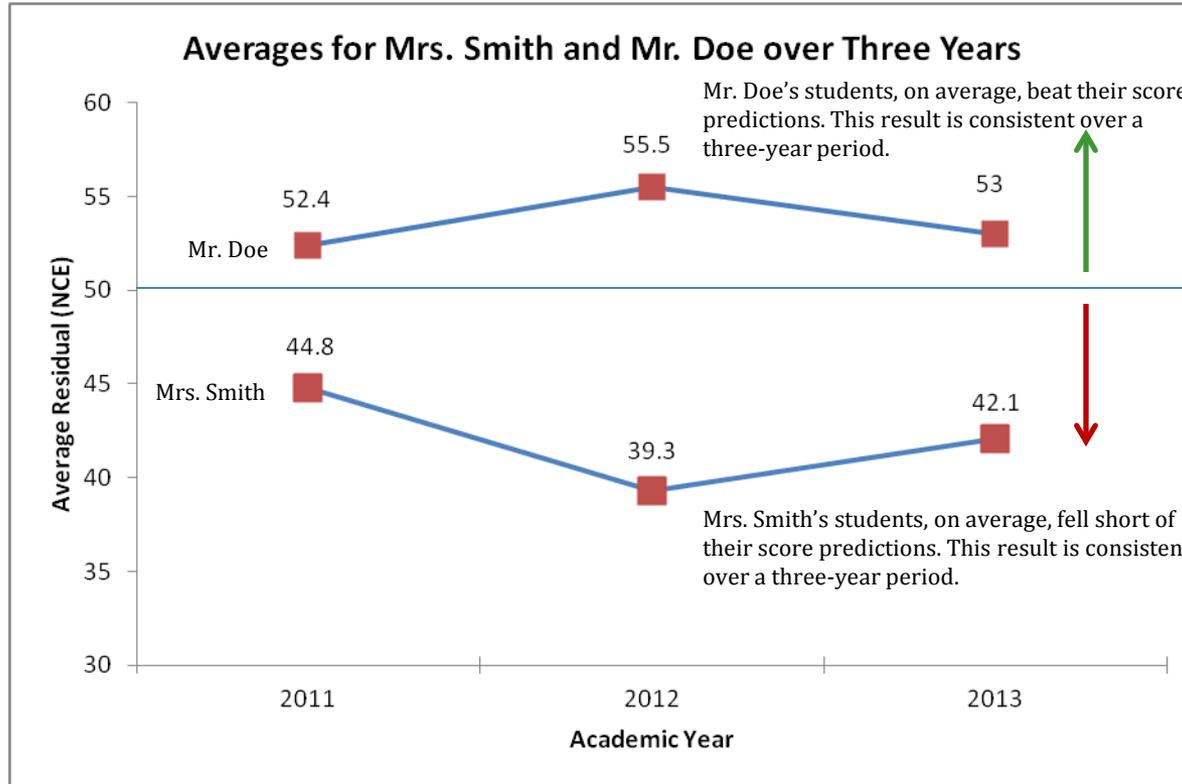
Another Look at Mrs. Smith's 5th Graders



All of Mrs. Smith's students are predicted to score well, but a significant number of them fall short.



The Long View



Mrs. Smith's 5th graders, on average, fell below prediction (average NCE less than 50) for three consecutive years. Growth data over multiple years can help reveal patterns. Can Mr. Doe help Mrs. Smith try new strategies to raise her students' academic achievement?



Reflections

- An average residual tells part of the story:
 - Pro: using the average helps keep from putting too much focus on any one student
 - Con: if the data are very spread out, the average may not be as meaningful
- Graphing the data on an entire classroom at once helps tell the full story
- One year of data – was it a fluke?
- How does Mrs. Smith compare to Anytown's other 5th grade teachers?

Remember...

- Multiple years of data such as NCEs are used *as one of multiple measures*

To Access Student Growth Data

Missouri Department of Elementary and Secondary Education - Windows Internet Explorer

http://dese.mo.gov/

File Edit View Favorites Tools Help

Missouri Department of Elementary and Secondary Education

Missouri DEPARTMENT OF ELEMENTARY & SECONDARY EDUCATION

Jay Nixon, Governor
Chris L. Nicastro, Commissioner

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September 8-14

Parent and Family Involvement in Education Week

1 2 3 4 5 6 7 8

News & Updates

- Department Requests Motion to Amend Gordon Parks Decision
- State Releases Annual Performance Reports for Districts and Schools
- Fenton Educator Named Missouri Teacher of the Year
- ACT Report Shows College Readiness Needs Improvement
- Guidance for Student Transfers (Revised September 5)

more news...

TOP 10 by 20 MISSOURI PROUD

Educator Certification

MCDS Portal

Model Curriculum Units

Webinars

Quick Links

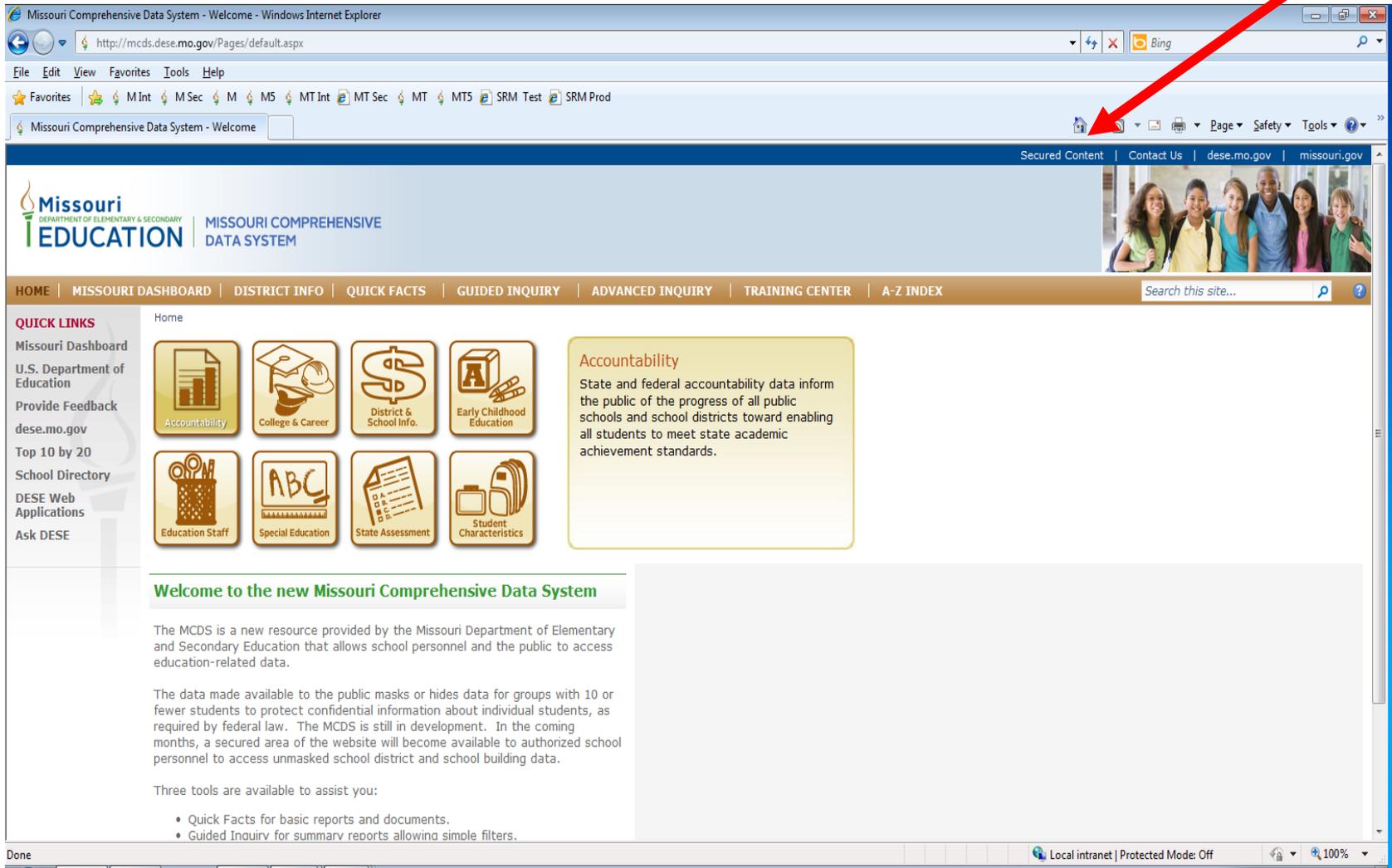
- A-Z Index
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Memos Administrators Teachers Counselors Families FAQs Helpful Links Social Media

- 08-20-13 - New Paraprofessional Assessment and Missouri Qualifying Score
- 06-17-13 - 2013 Data Release Reminders
- 06-03-13 - Changes in Certification Processing Fees
- 05-29-13 - Substitute System for Time and Effort Reporting Update
- 05-16-13 - Change in ParaProfessional Test

Unknown Zone (Mixed) | Protected Mode: Off | 100%

To Access Student Growth Data



Missouri Comprehensive Data System - Welcome - Windows Internet Explorer

http://mcds.dese.mo.gov/Pages/default.aspx

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Missouri Comprehensive Data System - Welcome

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Missouri
DEPARTMENT OF ELEMENTARY & SECONDARY
EDUCATION | MISSOURI COMPREHENSIVE
DATA SYSTEM

HOME | MISSOURI DASHBOARD | DISTRICT INFO | QUICK FACTS | GUIDED INQUIRY | ADVANCED INQUIRY | TRAINING CENTER | A-Z INDEX

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Ask DESE

Accountability
College & Career
District & School Info.
Early Childhood Education
Education Staff
Special Education
State Assessment
Student Characteristics

Accountability
State and federal accountability data inform the public of the progress of all public schools and school districts toward enabling all students to meet state academic achievement standards.

Welcome to the new Missouri Comprehensive Data System

The MCDS is a new resource provided by the Missouri Department of Elementary and Secondary Education that allows school personnel and the public to access education-related data.

The data made available to the public masks or hides data for groups with 10 or fewer students to protect confidential information about individual students, as required by federal law. The MCDS is still in development. In the coming months, a secured area of the website will become available to authorized school personnel to access unmasked school district and school building data.

Three tools are available to assist you:

- Quick Facts for basic reports and documents.
- Guided Inquiry for summary reports allowing simple filters.

Done

Local intranet | Protected Mode: Off | 100%

Choose Quick Facts – State Assessment

The screenshot shows the Missouri Comprehensive Data System website in a Windows Internet Explorer browser. The address bar displays <https://mcdssecured.dese.mo.gov/Pages/default.aspx>. The browser's navigation bar includes 'Sign Out', 'Contact Us', 'dese.mo.gov', and 'missouri.gov'. The website header features the Missouri Department of Elementary & Secondary Education logo and the text 'MISSOURI COMPREHENSIVE DATA SYSTEM'. A navigation menu contains 'HOME', 'MISSOURI DASHBOARD', 'DISTRICT INFO', 'QUICK FACTS', 'GUIDED INQUIRY', 'ADVANCED INQUIRY', 'TRAINING CENTER', and 'A-Z INDEX'. A search bar is located on the right side of the menu. The 'QUICK LINKS' sidebar lists various resources like 'Missouri Dashboard', 'U.S. Department of Education', and 'Provide Feedback'. The main content area has a 'Home' section with icons for 'Accountability', 'College & Career', 'Education Staff', 'Special Education', 'State Assessment', and 'Student Characteristics'. A dropdown menu is open over the 'QUICK FACTS' menu item, listing 'Accountability', 'College and Career', 'District and School Information', 'Early Childhood Education', 'Education Staff', 'Special Education', 'State Assessment', and 'Student Characteristics'. A callout box for 'Early Childhood Education' provides details about the data. Below this is a 'Welcome to the new Missouri Comprehensive Data System' section with introductory text and a list of available tools.

Sign Out | Contact Us | dese.mo.gov | missouri.gov

HOME | MISSOURI DASHBOARD | DISTRICT INFO | QUICK FACTS | GUIDED INQUIRY | ADVANCED INQUIRY | TRAINING CENTER | A-Z INDEX

Search this site...

QUICK LINKS

- Home
- Missouri Dashboard
- U.S. Department of Education
- Provide Feedback
- dese.mo.gov
- Top 10 by 20
- School Directory
- DESE Web Applications
- Ask DESE

Accountability

College & Career

Education Staff

Special Education

State Assessment

Student Characteristics

Early Childhood Education

This data includes information about Missouri early childhood programs and initiatives, including educator qualifications and Parents as Teachers participation.

Welcome to the new Missouri Comprehensive Data System

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- Quick Facts for basic reports and documents.
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<https://mcdssecured.dese.mo.gov/quickfacts/Pages/State-Assessment.aspx>

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Download Files

Missouri Comprehensive Data System - State Assessment - Windows Internet Explorer

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File Edit View Favorites Tools Help

Missouri Comprehensive Data System - State Ass...

College and Career
District and School Information
Early Childhood Education
Education Staff
Special Education
State Assessment
Student Characteristics

MAP Data Download supporting documentation is located here - <http://dese.mo.gov/MOSIS/documents/MAPDataDocumentation2013.xls>

State Assessment

| Type | Name | Description | Assistance Info |
|----------|---------------------------------|---|-----------------|
| Raw Data | MAP_District_Disaggregate_Final | Raw Data: 2013 District Level MAP and EOC Disaggregate | |
| Raw Data | MAP_District_Final | Raw Data: 2013 District Level MAP and End-of-Course (EOC) | |
| Raw Data | MAP_School_Disaggregate_Final | Raw Data: 2013 School Level MAP and EOC Disaggregate | |
| Raw Data | MAP_School_Final | Raw Data: 2013 School Level MAP and End-of-Course (EOC) | |

MAP Data Downloads

| Name | Type | Size | Date Modified |
|---|----------|--------|-----------------------|
| 2013 | Folder | | 8/14/2013 3:51:31 PM |
| 001090 | Folder | | 9/5/2013 11:25:02 AM |
| 2013_MAP_Data_001090.zip | ZIP File | 367079 | 9/3/2013 11:32:18 AM |
| 2013_MAP_Data_001090_Achievement_Level.zip | ZIP File | 61359 | 8/14/2013 9:47:06 AM |
| 2013_MAP_Data_001090_Content_Standard_Report.zip | ZIP File | 8373 | 7/26/2013 2:57:57 PM |
| 2013_MAP_Data_001090_Content_Standard_Summary.zip | ZIP File | 6296 | 7/26/2013 2:57:57 PM |
| 2013_MAP_Data_001090_Item_Agg.zip | ZIP File | 16107 | 7/26/2013 2:57:57 PM |
| 2013_MAP_Data_001090_MAP_History_Indicators.zip | ZIP File | 3801 | 7/19/2013 1:35:01 PM |
| 2013_MAP_Data_001090_MAP_Score_Invalidation.zip | ZIP File | 557 | 8/14/2013 9:47:06 AM |
| 2013_MAP_Data_001090_Student_Test.zip | ZIP File | 129699 | 8/14/2013 9:47:07 AM |
| 2013_MAP_Data_001090_Student_Test_Item.zip | ZIP File | 120852 | 7/26/2013 2:57:59 PM |
| 2013_MAP_Data_001090_Student_Test_LEP.zip | ZIP File | 773 | 7/28/2013 10:17:46 PM |
| 2013_MAP_Data_001090_VAM_Comm_Arts_Student.zip | ZIP File | 9744 | 9/3/2013 11:32:12 AM |
| 2013_MAP_Data_001090_VAM_Math_Student.zip | ZIP File | 9738 | 9/3/2013 11:32:12 AM |
| 2012 | Folder | | 7/13/2012 11:58:16 PM |
| 001090 | Folder | | 8/14/2013 3:20:18 AM |

District: 001090 Page: 1

Done Local intranet | Protected Mode: Off 100%

Please Understand...

The “What” and “So What”:

To facilitate awareness of how the state department will be determining "growth" on the state assessment so that districts can thoughtfully address critical component #6

Non-purpose:

To overwhelm you with technical procedures...as these reports will be provided for you.

Principle #4

Critical Components

1. Student growth measures are a *significant contributing factor* in educator evaluation
2. Uses multiple measures including *formative and summative* assessments
3. Includes *multiple years* of comparable student data
4. Highlights student growth *across two points in time*
5. **Includes the *state assessment where available and appropriate* and additional district and school determined assessments**

Table Talk...

As you consider how your district might possibly address component #5:

- 1. What did you learn from this segment that might be helpful?*
- 2. What might be important to keep in mind about the use of state assessment results in their EES?*
- 3. What person or group in your districts might benefit from this information when they return?*

An Example Process:
Student Learning Objective

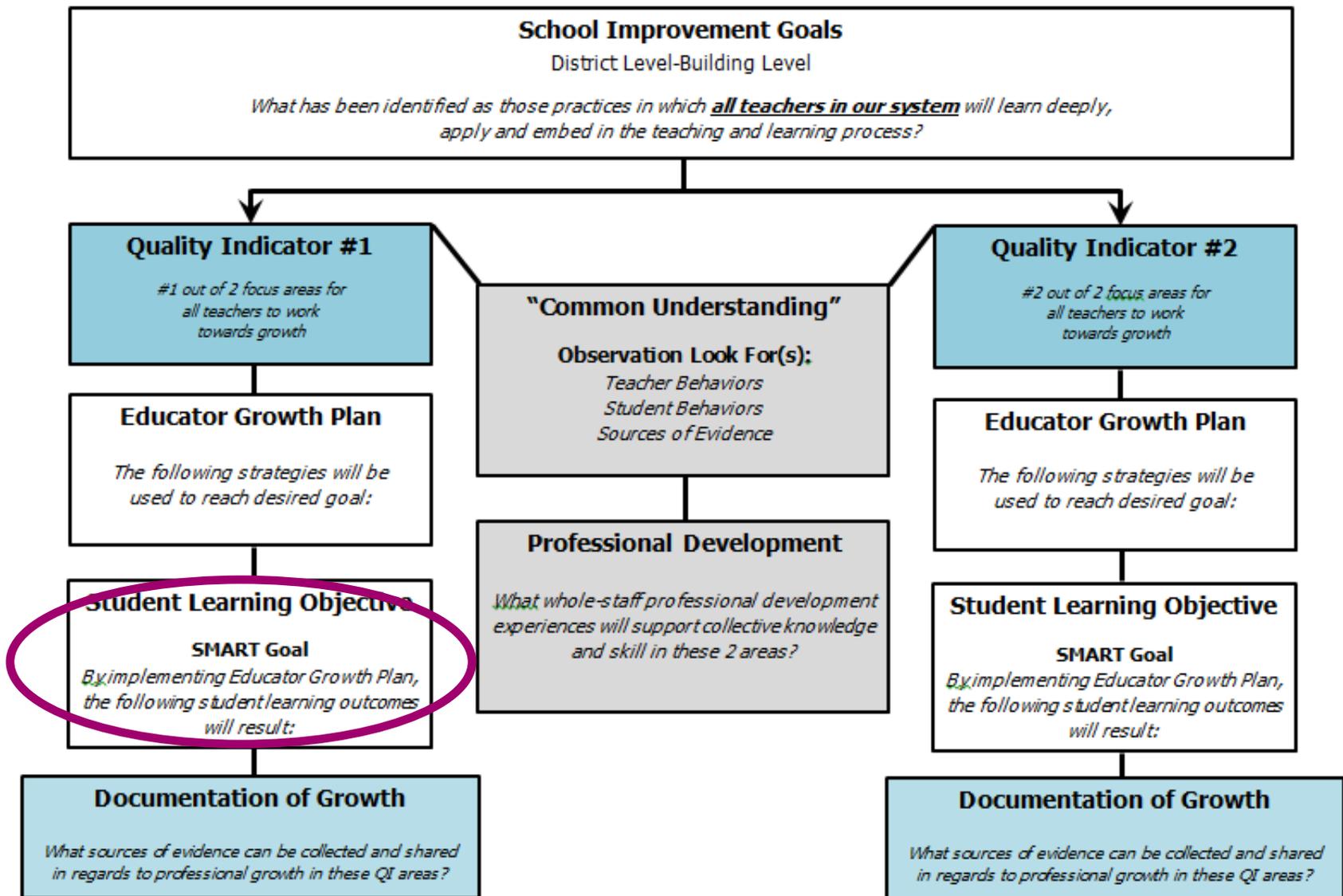
Student Learning Objective: WHY?

States have adopted the Student Learning Objective (SLO) process as a means to incorporate measures of student growth into an educator evaluation system.

SLOs offer a *documented, focused process for those grades and courses which do not participate in state assessment.*

Educator Evaluation System

Manageability Consideration (System-Wide)



Targeting Growth

Using Student Learning Objectives as a Measure of Educator Effectiveness

As States and districts implement educator evaluation systems that include measures of student growth, one of the challenges they face is identifying measures for non-tested grades and subjects.

Using student learning objectives (SLOs) is one promising approach to addressing this challenge.

SLOs have their origins in the experience of Denver Public Schools, which in 1999 began using them to link teacher pay to student outcomes. Districts like Austin Independent School District and Charlotte-Mecklenburg Schools, as well as States that won Race to the Top grants—including Rhode Island, Georgia, New York and several others—are building on the experience of Denver Public Schools and developing methods for using SLOs as a tool to incorporate measures of student growth for non-tested grades and subjects (NTGS) in their evaluation systems.

What are SLOs?

At the heart of an SLO is a specific learning goal and a specific measure of student learning used to track progress toward that goal. There are many options for student growth measures. It is possible to use large scale standardized tests, even State standards tests for SLOs. However, it is also possible to use other methods for assessing learning, such as end of course exams in secondary courses, student performance demonstrations in electives like art or music, and diagnostic pre- and post-tests in primary grades or other relevant settings.

Teachers, principals and other administrators and their supervisors can set SLOs for any subject, grade or group of students. Groups of teachers in the same

subject or grade or in the same school or district can set them as well. With their supervisors, principals can set objectives focused on school-wide learning goals, and district-level administrators can develop SLOs with district goals in mind.

Although many early adopters of SLOs expect them to be set collaboratively by teachers and their evaluators, there is no hard and fast rule for their development. Georgia, for instance, is piloting a process through which SLOs are developed at the district level and then approved by the State.

SLOs show potential as an evaluation method to incorporate student growth measures in the evaluation process, but they are also an important method for improving instructional practice. Research on Denver's use of SLOs found that rigorous and high-quality growth objectives were associated with higher student achievement.¹ Like well-constructed SLOs, good instruction includes gathering data, setting goals based on that data, and then assessing whether the goals have been met.

“If properly implemented, student learning objectives help teachers bring more science to their art, strengthen instructional support to the classrooms, and improve the quality of the outcome.”

William J. Slomik
Founder and Executive Director
Community Training and Assistance Center



* Article:

Solo article

off as “Experts”

1. *What are SLOs?*
2. *SLOs and Teacher Evaluation*
3. *Challenges*

Share most important points from assigned “expert” area!

Student Learning Objective

| Student Learning Objective | | | | |
|--|-------------------------|------------------|-------------------|--------------------|
| Population | | | | |
| MO Learning Standard(s) | | | | |
| Timeframe | | | | |
| Assessment Tools/ Data Points | | | | |
| Baseline Performance | | | | |
| Target(s) and Scoring | Highly Effective | Effective | Developing | Ineffective |
| | | | | |
| Expected Growth | | | | |
| Action Steps/Strategies | | | | |
| Connection to Growth Guide(s) <i>(Standard/QI)</i> | | | | |

OR

Let's Practice!

Student Learning Objective

Student Learning Objective

| Student Learning Objective | | | | |
|--|-------------------------|------------------|-------------------|--------------------|
| Population | | | | |
| MO Learning Standard(s) | | | | |
| Timeframe | | | | |
| Assessment Tools/ Data Points | | | | |
| Baseline Performance | | | | |
| Target(s) and Scoring | Highly Effective | Effective | Developing | Ineffective |
| | | | | |
| Expected Growth | | | | |
| Action Steps/Strategies | | | | |
| Connection to Growth Guide(s) <i>(Standard/QI)</i> | | | | |

OR

Choose One!

Clean Room

**Chocolate Chip
Cookie**

Manicured Lawn

Family Vacation

Create Example SLO

As a team, use the Student Learning Objective template to create a “mock” SLO for your chosen goal.

SLO Activity

Teams

Mathematics
English Language Arts
Science
Social Studies
Music
Art
Physical Education
Business/Technology

Create Example SLO

As a team, use the Student Learning Objective template to create a “mock” SLO for your content area.

SLO Activity



Gallery Walk

Post your example SLO on the wall.

off 1-5

Begin at the station # which matches your assigned number.

Using post-it notes, provide team feedback to the SLO being reviewed. Use the "Guiding Questions" to assist your feedback.

Step 2:

Think about how your school will begin to *develop, or refine, a process* where teachers are setting and monitoring measurable student learning goals.

How might this process be *connected to your educator evaluation system?*

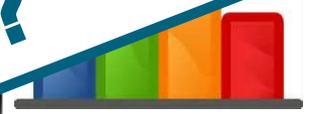
Action Plan*

Getting Started!
Student Growth Measures

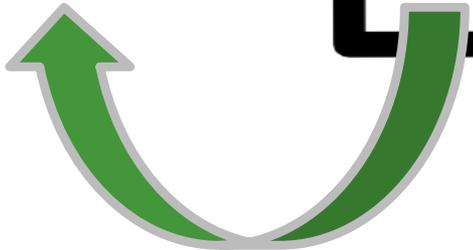
Observation

Survey Data

**If this is the “End in Mind” ...
where do we start?**



Student growth
measures



1. Determine Measures

- What should be measured in each classroom, each course?
- What measuring tool will be used in order to provide:

multiple measures including formative and summative assessments

multiple years of comparable student data

student growth across two points in time

inclusion of state assessment where available and appropriate and additional district and school determined assessments

Common benchmark and formative district-generated assessments

Peer reviewed performance assessments

Mutually developed student learning objectives by evaluator/teacher

Individualized student growth objectives defined by the teacher

Results on pre-tests and post tests

Student work samples such as presentations, papers, projects, portfolios

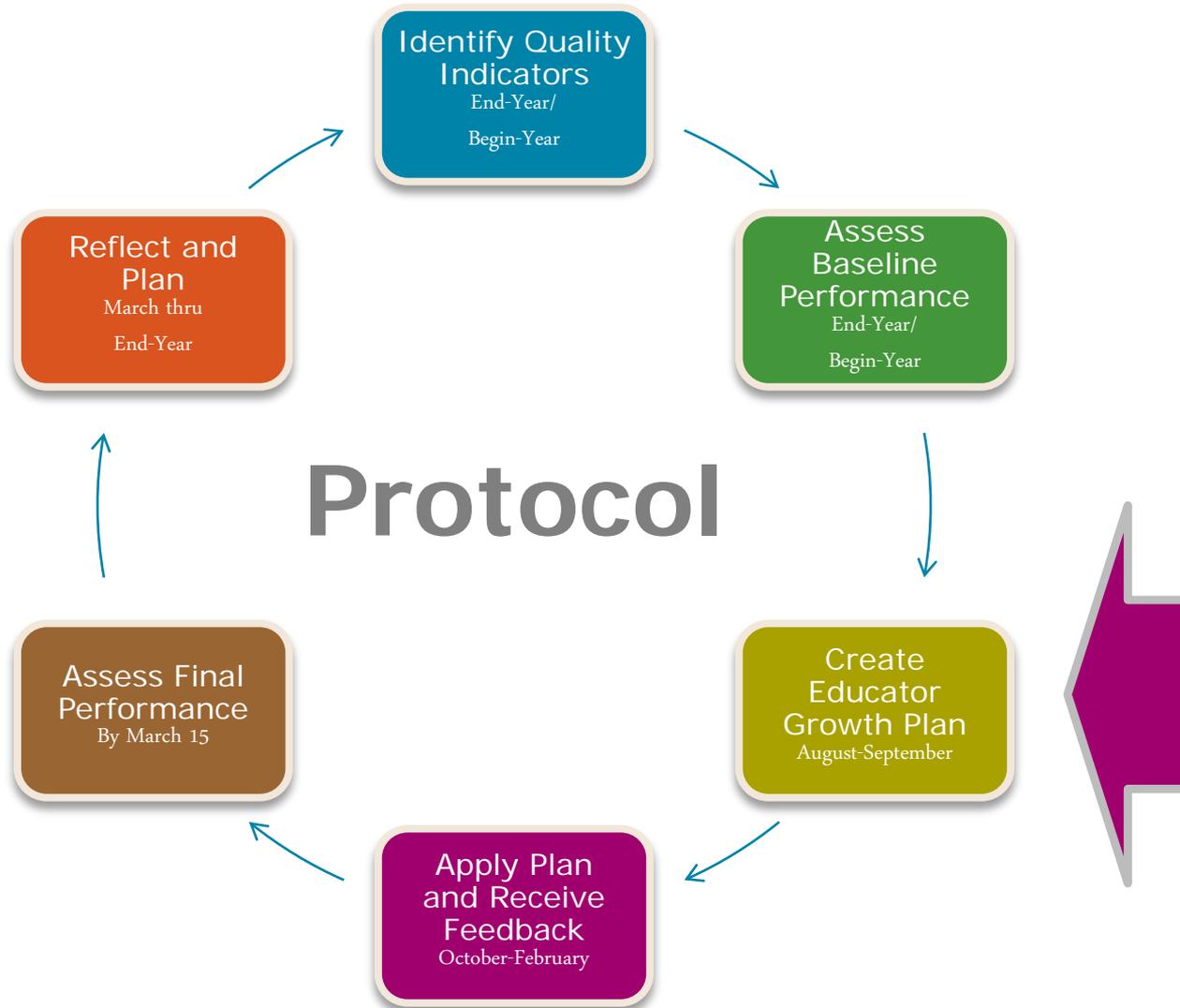
Measures of Growth Examples

2. Establish a Process

How can this become a ***systematic process*** where teachers become familiar in focusing their own growth and development toward student learning outcomes?

A process where I, as leader, can have meaningful conversation on the impact of teaching on student learning...

Missouri Educator Evaluation



3. Determine how staff can be educated, modeled to and supported in this defined process.

How can we *start simplistically* and focus on one area so that staff are not overwhelmed with the process?

If using the Student Learning Objective format, how might the staff be *modeled how to construct* high quality SLOs?



Student Learning Objective

| | | | | |
|--|-------------------------|------------------|-------------------|--------------------|
| Population | | | | |
| MO Learning Standard(s) | | | | |
| Timeframe | | | | |
| Assessment Tools/ Data Points | | | | |
| Baseline Performance | | | | |
| Target(s) and Scoring | Highly Effective | Effective | Developing | Ineffective |
| | | | | |
| Expected Growth | | | | |
| Action Steps/Strategies | | | | |
| Connection to Growth Guide(s) <i>(Standard/QI)</i> | | | | |

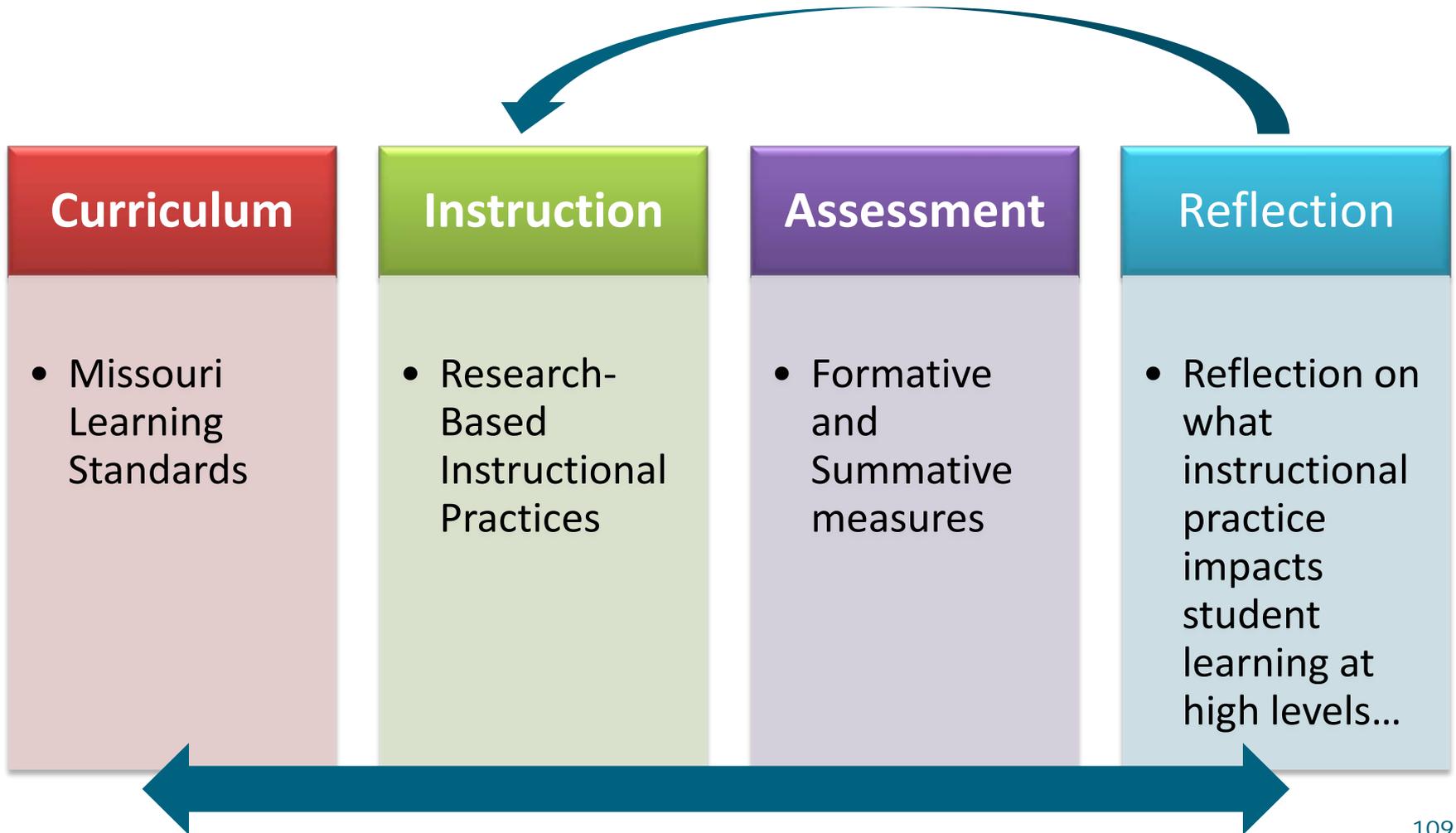
OR

4. Continue to be reflective of the alignment within Curriculum-Instruction-Assessment at your school.

We want to make sure that the Student Growth Measures selected *match up with the curriculum* of our school...

When we reflect with teachers about their student growth...we want them to be able to think about instructional techniques that are *research-based*...

Alignment



PLC Corollary Questions

What do my students need to know
and be able to do?

Curriculum

PLC Corollary Questions

How will we “teach” to ensure students learn at high levels?

Instruction

PLC Corollary Questions

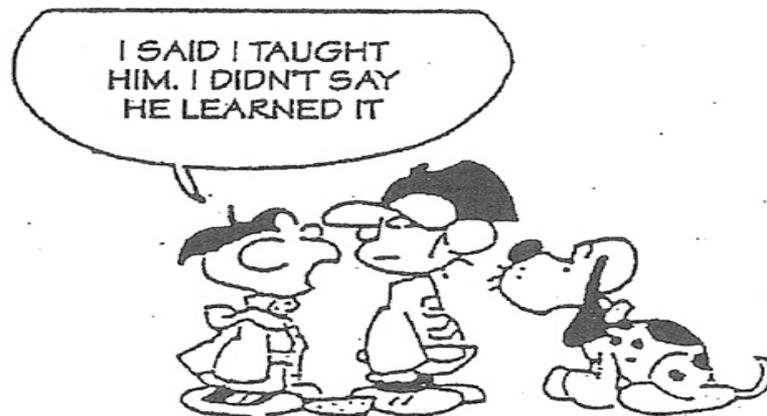
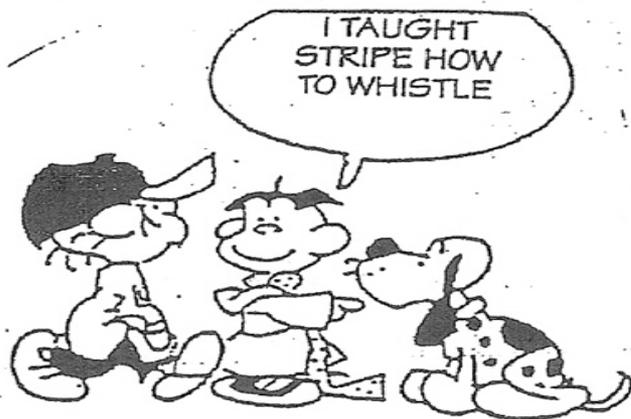
How will we know if our students
have learned?

Assessment

Ultimately...

How will our teachers reflect on whether or not students are learning and whether or not their instructional practices are proving to be effective?

Reflective Practices



Step 3:

As a school team, take the time to *reflect on the alignment* of the following supportive elements to effectively using student growth measures as part of an educator evaluation system:

Curriculum – Instruction – Assessment - Reflective Practice

What is in place? Possibilities?

Action Plan*

Recommendations from MO Schools Sub-Pilot Group (2012-2013)

Common Theme #1:

Create a *collaborative, trusting culture* where teachers are trained to look at data, use quality instructional strategies and construct high quality assessments.

Common Theme #2:

Develop *common benchmark assessments* utilizing a pre- and post-assessment structure on important (essential) standards.

Common Theme #3:

Evaluators receive specific training on how to use student growth measures in the evaluation process. *SLO...how to get started?*

Considerations

- The Missouri Growth Model and Student Learning Objectives ***offer a few of many opportunities*** for schools to address Student Growth Measures as their own comprehensive evaluation systems are under development, refinement, or replacement.
- ***Share what you are thinking and doing in your own schools*** with other schools beyond your borders. Develop a network of support by contributing, discussing, piloting, implementing, and assessing your efforts and the efforts of others.

Resources

- **DESE "Guidelines for Use of Student Growth Measures in Educator Evaluation"...**

a. Are found in the "Essential Principles of Educator Evaluation" section of the Missouri Educator Evaluation System which can be accessed through the DESE website at www.dese.mo.gov...

b. Offer a solid start for understanding the extreme importance of Student Growth Measures within local school district educator evaluation systems as of 2014-15. This is a must read.

c. Provide numerous "References and Resources," "State Resources," and "Additional Sample SLOS from other states."

Resource

**Massachusetts
Department of Elementary and Secondary Education**

**Full List of Example Assessments for use as District-
Determined Measures**

<http://www.doe.mass.edu/edeval/ddm/example/fulllist.html>

EES Guideline: Student Growth Measures

<http://dese.mo.gov/eq/eeval.htm>

The screenshot shows the Missouri Department of Elementary & Secondary Education website. The header includes the state logo and navigation links like 'Contact Us', 'Site Map', and 'Jobs'. The main content area is titled 'Effectively Evaluating Educators' and features a welcome message. A sidebar on the left contains a navigation menu with categories such as 'About Office of Educator Quality', 'Administrative Memos', 'Certification', 'Educator Development', 'Educator Evaluation', 'Educator Preparation', 'Recognition & Awards', 'Recruitment & Retention', 'Webinars', and 'Web Applications'. Below the sidebar are search and social media icons. The main content area includes three promotional boxes: 'Model Evaluation System', 'Educator Standards', and 'Essential Principles of Effective Evaluation'. A large black arrow points from the 'Essential Principles' box towards the right side of the slide.

Missouri DEPARTMENT OF ELEMENTARY & SECONDARY EDUCATION

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Effectively Evaluating Educators

How Do I Find?

- Brochure
- Filter
- FAQs

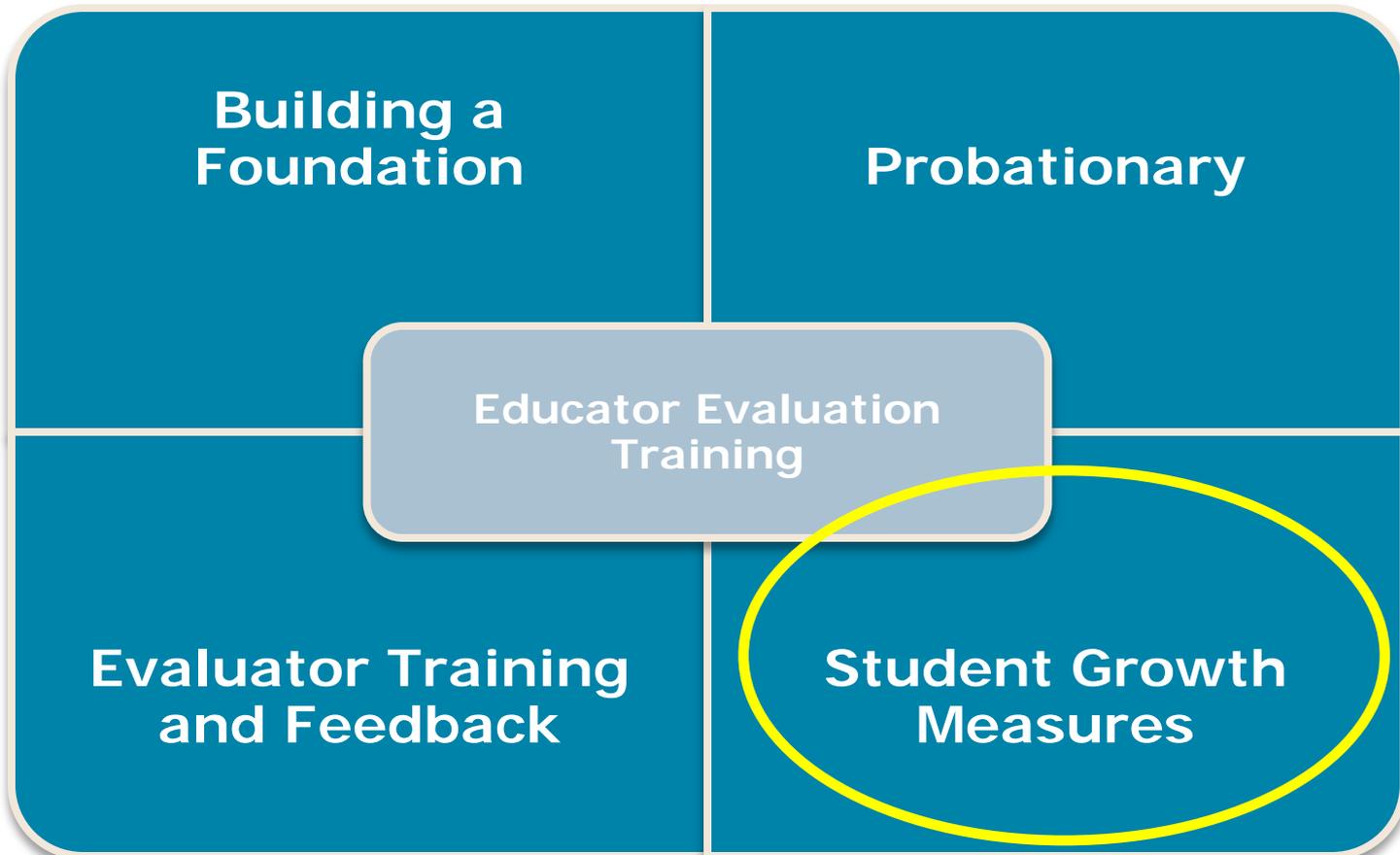
Welcome to our Effectively Evaluating Educators web page. This page is designed to provide information regarding technical assistance and support for the Model Evaluation System, Educator Standards, and Essential Principles.

Model Evaluation System
Click Here for the Model Evaluation System

Educator Standards
Click Here for the Educator Standards

ESSENTIAL PRINCIPLES
Click Here for the Essential Principles of Effective Evaluation

2013-2014 Training Roadmap*



Intended Outcomes

- 1) Understand *how to include student growth measures* as one component of an entire educator evaluation system.
- 2) Be able to *identify effective student growth measures* that align with the critical components of Essential Principle #4.
- 3) Develop an *example Student Growth Measure* using the Student Learning Objective (SLO) process.

Contact Us

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