

Using Data to Set Achievable Goals

Presented by

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For the Fine Educators Supported by

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Today's Targets

1. Set challenging, yet attainable goals based on high standards for desired levels of student achievement.
2. Identify options available for setting goals with subgroups of students.
3. Recognize that small increments of continuous growth in student achievement are more than acceptable progress.

3 Types of Data

Outcome

What they got

Percentage of students in highest proficiency level on district assessment

Percentage of students earning an A or B in language arts

Percentage of students scoring at the 50th percentile or above on norm-referenced test

Demographic

Who got it

Percentage of minority students in highest proficiency level on district assessment

Percentage of ELL students earning an A or B in language arts

Percentage of low SES students scoring at the 50th percentile or above on norm-referenced test

Process

How/why they got it

Amount of time students read during the school day

Listing of types of writing students do in school

Report of alignment results — reading textbook to district standards

3 Types of Data

Outcome

ACT score results

ITBS results —
Mathematics

NWEA results

AP Exam results

Course grades

Demographic

Race/ethnicity

Gender

SES

Students with
disabilities

ELL

Migrant

Process

Percent of time
students spend
reading

Types of writing
assignments

Alignment of
textbook to
curriculum

Alignment of test
to curriculum

Examples of Student Achievement Data

Reading

- Iowa Tests of Basic Skills
- Iowa Tests of Educational Development
- District-wide Assessment
- Commercially-produced Assessment
 - Tests for Higher Achievement
 - Harcourt-Brace
 - NWEA
- Student Grades (A, B, C, D, F)
- Students Reading on Grade Level
- Students Mastering District Standards
- ACT
- SAT
- AP Exams

Mathematics

- Iowa Tests of Basic Skills
- Iowa Tests of Educational Development
- District-wide Assessment
- Commercially-produced Assessment
 - Tests for Higher Achievement
 - Harcourt-Brace
 - NWEA
- Student Grades (A, B, C, D, F)
- Students Mastering District Standards
- ACT
- SAT
- AP Exams

Science

- Iowa Tests of Basic Skills
- Iowa Tests of Educational Development
- District-wide Assessment
- Commercially-produced Assessment
 - Tests for Higher Achievement
 - Harcourt-Brace
 - NWEA
- Student Grades (A, B, C, D, F)
- Students Mastering District Standards
- AP Exams

Source: *Using Data to Improve Student Achievement* by Deborah Wahlstrom⁴

Use Questions to Help You Focus Data

1. Do we have quality?
2. Do we have equity? Are subgroups of students performing at similar levels on the same test? Are there differences in achievement between groups of students?
3. How do our scores compare to the scores for the school district? The state? How do our scores compare to where we want to be?
4. How do the percentages of students in each achievement level compare from one year to the next? Does a greater percentage of students achieve in the advanced range each year?
5. What areas of weakness do we need to address? These may be areas we want to reteach and remediate.
6. What are our areas of strength? These are areas we want to maintain and reinforce.
7. Did our 8th grade students make progress in reading this year?
8. What effect did increasing the amount of time for reading (from 30 minutes to 45 minutes daily) have on the reading achievement of our students?

Source: *Using Data to Improve Student Achievement* by Deborah Wahlstrom⁵

Quality Indicators for Long-Range Improvement Goals

Definition	Meets Requirements	Exceeds Requirements
<p>A long-range goal is a statement of the desired measurable student outcome that has been derived from the prioritized needs of the school.</p> <p>Long-range goals span three to five years.</p>	<ol style="list-style-type: none"> 1. Addresses improvement of student achievement. 2. Aligned with needs assessment data. 3. Exists for reading, math, and science. 4. Based on one data source. 5. Annual improvement goals are clearly aligned with them. 	<ol style="list-style-type: none"> 1. Anchored in student behaviors — demonstrations of what students know and can do. 2. Focuses on one student behavior. 3. Exists in areas other than reading, math, and science. 4. Based on multiple sources of data. 5. Monitored by progress with annual improvement goals. 6. Aligned with school's mission/vision. 7. Aligned with standards.

Quality Indicators for Annual Improvement Goals

Definition	Meets Requirements	Exceeds Requirements
<p>An annual improvement goal is a statement of the desired measurable student outcome that has been derived from the prioritized needs of the school.</p> <p>This is the school's yearly goal toward the long-term goal.</p>	<ol style="list-style-type: none"> 1. Designed with input from School Improvement Advisory Committee. 2. Describes a desired measurable annual improvement. 3. Addresses the areas of reading, math, and science. 4. Addresses student achievement. 5. Based on student achievement data from at least one district-wide assessment. 6. Based on student achievement data that has at least three performance levels. 7. Has data that is disaggregatable by gender, race/ethnicity, socio-economic status, students with disabilities, ELL, and migrant 8. Based on two years of student achievement data. 9. Aligned with long-range goal. 10. Based on one data source. 	<ol style="list-style-type: none"> 1. Exists in areas other than reading, math, and science. 2. Anchored in student behaviors — demonstrations of what students know and can do. 3. Focuses on one student behavior. 4. Based on multiple sources of data.

A Good Goal Has These Components

When

1. Time frame

How Much

2. Criteria amount for making goal

Who

3. Target group

What

4. Task/behavior

How

5. Measurement tool

Time Frame

- 1.1 Determine if this is an annual improvement goal or a long-range goal.
- 1.2 Determine the real amount of time you have to meet your goal.
- 1.3 Direct instructional strategies and actions toward the long-term goal.

Criteria Amount for Achieving Goal

- 2.1 Determine the amount of change you want to see in your results. This amount should be challenging yet attainable.
- 2.2 Determine what you will use to determine the criteria. This may include research, previous goal amounts, CSIP or other goals.
- 2.3 Determine if the decision will be clear cut or ambiguous.
- 2.4 Determine if the criteria is quantifiable.

Types of Score Systems

Raw Score

The number of questions or items that a student answers correctly on a test.

Mean Score

The average score in a set of scores.

Percent Correct Score

The percentage of test items a student answers correctly.

Scaled Score

A mathematical transformation of a raw score into a score within an achievement continuum.

Percentile Scores

A point on a score scale that divides a score distribution into two parts: the part equal to or below the score — and the part above.

Stanine Scores

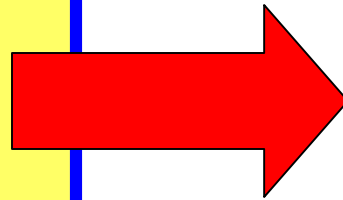
Groupings of percentile ranks into a nine-unit scale. A stanine is one of the steps in this nine-point scale.

Percent in a Proficiency Level

The percentage of students who achieved a score within a proficiency level range.

Setting High, Yet Attainable Goals

How is a goal like a rubberband?



Are These Challenging Goal Amounts

Example 1

A school has set a goal of having 3% more 4th grade students in the proficient range on the Iowa Tests of Basic Skills (ITBS) Reading Comprehension assessment. (There are 80 4th grade students in this school)

Example 2

A school has set the goal of 90% of its 4th graders meeting or exceeding the proficiency cut score on the District's Math assessment.

Example 3

Five percent of the students in the 11th grade will move to the proficient or advanced categories of ITEDs.

Example 4

After establishing a base score on the Iowa Tests of Basic Skills in the third grade, 75% of our students will achieve at least one year's growth in mathematics each year.

Example 5

Annual improvement of 1% per year over baseline data to reach the long term goal.

Percent Increase vs Percentage Points

During the 2002-2003 school year, Pleasantville Elementary will have 5% more 4th grade students in the proficient ranged as measured by the Reading Comprehension subtest of the *Iowa Tests of Basic Skills*.

Five-Year Long-Term Goal

	2001-2002 Baseline	2002-2003 Year 1	2003-2004 Year 2	2004-2005 Year 3	2005-2006 Year 4	2006-2007 Year 5
5 percentage points increase	47%	52%	57%	61%	66%	71%
5 percent increase	47%	49%	51%	54%	57%	60%

Writing the Goal Amount

From to

Example 1

A school has set a goal of having 3% more 4th grade students in the proficient range on the Iowa Tests of Basic Skills (ITBS) Reading Comprehension assessment. (There are 80 4th grade students in this school)

Example 2

A school has set the goal of 90% of its 4th graders meeting or exceeding the proficiency cut score on the District's Math assessment.

Example 3

Five percent of the students in the 11th grade will move to the proficient or advanced categories of ITEDs.

Questions For Determining a Challenging Goal Amount

1. Which kind of goal?
2. How many more students does this improvement represent?
3. Will the amount of improvement get us to our five-year goal?
4. Can we help the number of students the improvement goal represents?

What is a Worthy Increase in Goal Amounts

% of Students Change

Looking for increases or decreases in the percentage of students

Examples

- **Decrease** in the percentage of students scoring in the basic proficiency level.
- **Increase** in percentage of students scoring at or above the 50th percentile.

Goal Amount

10-25% of the group you're trying to move

% of Students Achieving a Standard

Looking for increases in the percentage of students meeting standards

Examples

- **Increase** in the percentage of students passing the district writing test.
- **Increase** in the percentage of students achieving mastery in a science class.

Goal Amount

75-80% mastery for all students

Which Goals Show Acceptable Progress

		Baseline Year Information			Year 2 Improvement Goal Information			
		# of Students Taking Baseline Test	% of Students Showing Proficiency Baseline Score	# of Students Achieving at Baseline Score	# of Students in Year 2	% of Students Showing Proficiency Goal Improvement Score Year 2	# of Students Needed to Meet Year 2 Goal	# of Students the Improvement Represents
Yes	Not Yet	100	60%	60	101	69%	69	9
Yes	Not Yet	84	60%	50	90	69%	62	12
Yes	Not Yet	55	60%	33	54	69%	37	4
Yes	Not Yet	42	60%	25	42	69%	29	4
Yes	Not Yet	120	73%		118	76%		
Yes	Not Yet	120	73%		118	78%		
Yes	Not Yet	120	73%		118	81%		
Yes	Not Yet	120	73%		118	83%		

Will Our Goal Get Us To Our Target

During the 2002-2003 school year, Pleasantville Elementary will have 3% more 4th grade students in the proficient ranged as measured by the Reading Comprehension subtest of the *Iowa Tests of Basic Skills*.

Five-Year Long-Term Goal

2001-2002 Baseline	2002-2003 Year 1	2003-2004 Year 2	2004-2005 Year 3	2005-2006 Year 4	2006-2007 Year 5
47%	52%	57%	61%	66%	71%

Twelve-Year Goal – Working Toward No Child Left Behind Act

2001-2002 Baseline	02-03 AYP 1	03-04 AYP 2	04-05 AYP 3	05-06 AYP 4	06-07 AYP 5	07-08 AYP 6	08-09 AYP 7	09-10 AYP 8	10-11 AYP 9	11-12 AYP 10	12-13 AYP 11	13-14 AYP 12
47 %	52%	57%	61%	66%	71%	76%	81%	86%	91%	97%	99%	100%

Setting Goals for Demographic Data

		Gender		Race/Ethnicity		SES		Disability		Language		Migrant	
		male	female	minority	white	Med/High	Low	With	Without	ELL	English	Migrant	Not Migrant
# of Students	100	51	49	8	92	60	40	20	80	9	91	8	92
% of Students	100%	51%	49%	8%	92%	60%	40%	20%	80%	9%	91%	8%	92%
Meets the Rule of 10 N okay to disaggregate		YES		NO		YES		YES		NO		NO	
# in Proficient Level or Above	76	36	40	5	71	46	30	8	68	3	73	2	74
% in Proficient Level or Above	76%	71%	82%	63%	77%	77%	75%	40%	85%	33%	80%	25%	80%
2002 Gap in Achievement in Percentage Points		11		14		2		45		47		55	
2003 Annual Goal to Reduce Gap in Achievement in Percentage Points		9		8		1		40		44		50	

Target Group

- 3.1 Determine the group on which you'll be focusing your goal measurement and attainment.
- 3.2 Determine if you will track cohort groups of students or different groups at the same point in time.
- 3.3 Identify how you currently measure your target group.
- 3.4 Describe precisely your target group of students.

Scores and Student Groups

Cohort Group

Different Groups Measured at Same Time

Definition

A group of students that share a particular characteristic — such as a year in a specific grade level.

A group of students that do not share a particular characteristic.

Examples

Comparison of ITBS Reading for students when they were in grade 3 and again in grade 4.

Comparison of ITBS Reading for students in 3rd grade in spring 2002 to students in 3rd grade in spring 2003.

Tracking Pattern

Test Year	Grade Level				
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
2002	ITBS	ITBS	ITBS	ITBS	ITBS
2003		ITBS	ITBS	ITBS	ITBS
2004			ITBS	ITBS	ITBS
2005				ITBS	ITBS
2006					ITBS

Grade Level	Year Tested				
	2002	2003	2004	2005	2006
Grade 3	ITBS	ITBS	ITBS	ITBS	ITBS
Grade 4	ITBS	ITBS	ITBS	ITBS	ITBS
Grade 5	ITBS	ITBS	ITBS	ITBS	ITBS
Grade 6	ITBS	ITBS	ITBS	ITBS	ITBS
Grade 7	ITBS	ITBS	ITBS	ITBS	ITBS

Tasks and Behaviors

- 4.1 Describe what you want your students to do or achieve.
- 4.2 Include a performance descriptor to help define what you want your students to achieve.
- 4.3 Determine if the task meets the M+M2 strategy:
Meaningful, Measurable, Monitorable, Make
decisionable

What do you want students to do

Increase

Decrease

Maintain

Meet or exceed

Achieve

Perform

Attain

Earn

Accomplish

Obtain

Gain

Performance Descriptors

Proficient range

Advanced level

Cut score

50th percentile or above

Achievement Levels

Low, average, high

Less than proficient, proficient, advanced

Skilled, accomplished, distinguished

Low, intermediate, high

Fail, pass proficient, pass advanced

Does not meet, meets, exceeds

Measurement Tool

- 5.1 Determine the technical adequacy (reliability, validity, fairness) of the assessment(s) you use.
- 5.2 Identify trend data on this assessment.
- 5.3 Determine if the data you get from the test results can be disaggregated by subgroups of populations.
- 5.4 Determine if the data from the test includes at least three performance levels.
- 5.5 Determine whether the assessment will allow you to collect and make mid-course corrections or if it is a one time assessment.

Assessment Tools For Annual Improvement Goals

School Successline Elementary

Goal Area Reading

(Reading, Writing, Math, Science, SS)

SIAC Input: Teachers Administrators Students Parents Community Members
 (circle all that apply)

Desired Measurable Annual Improvement Goal

By the 2002-2003 school year, 86% of students in grades 3-5 will score at or above the proficient levels in reading as measured by the Reading Comprehension subtest of the Iowa Tests of Basic Skills

Student Achievement Data	Score System	3 Performance Levels			Disaggregated Data						Years Data is Available			Mid-Course Corrections
		Low	Medium	High	Gender	Race Ethnicity	SES	Students With Disabilities	ELL	Migrant	2001	2002	2003	
ITBS Grade 3 (NRT)	scale	Less Than Proficient	Proficient	Advanced	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
ITBS Grade 4 (NRT)	scale	Less Than Proficient	Proficient	Advanced	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
NWEA Grade 4	percent correct	Low	Average	High	yes	yes	no	yes	yes	no	yes	yes	yes	yes
ITBS Grade 5 (NRT)	scale	Less Than Proficient	Proficient	Advanced	yes	yes	yes	yes	yes	yes	yes	yes	yes	no

Chart Assessment Tools for Annual Improvement Goals

Purposes

1. Organize data related to the Quality Indicators for Annual Improvement Goals.
2. Analyze the data in the chart to make decisions about setting goals.

Analysis Questions

1. What student achievement data is available for this goal area?
2. For which grade levels is this available?
3. Which of the tests are norm-referenced tests?
4. Which of the tests are criterion-referenced tests?
5. What are the score systems for each of the tests?
6. Which tests have three performance levels?
7. Which tests DO NOT have three performance levels?
8. In which ways can the data from the tests be disaggregated?
9. Which tests can be used to show trend data?
10. How much data do we need?

Generic Format For Writing a Goal

Context

The context includes previous assessment results, trend information, previous goal results in same area, persons involved in determining the goal, and current strategies/practices in meeting previous goals. Include graphs of the trend data related to the goal.

Goal

During timeframe, (your district name) will have criteria of target group will task/behavior as measured by assessment.

Actions

Include a brief description of the actions, strategies, and interventions to help students meet the goals. This could include staff development, technology, and other aspects of your school improvement planning.

Key Parts to an Iowa Improvement Goal

When

Who

During timeframe, (your district name) will have criteria of target group will task/behavior as measured by assessment.

How
Much

How

What

Examples Generic Goal

Example 1

During the 2002-2003 school year, Pleasantville Public School District will have 3% more 4th grade students in the proficient range as measured by the Iowa Tests of Basic Skills (ITBS) Reading Comprehension assessment.

Example 2

During the 2002-2003 school year, 90% of the Pleasantville Public School District 4th graders will meet or exceed the proficiency cut score on the District's Math Assessment.

Are These Well-Written Goals

Yes Not Yet

Example 1

During the 2002-2003 school year, Pleasantville Public School District will have 3% more 4th grade students in the proficient range as measured by the Iowa Tests of Basic Skills (ITBS) Reading Comprehension assessment.

Yes Not Yet

Example 2

Increase the percentage of freshmen who take and successfully complete Algebra 1 by 5% annually.

Yes Not Yet

Example 3

Work toward our 5-year goal to decrease the gender bias in math.

Yes Not Yet

Example 4

Significantly increase the amount of independent reading by students.

Yes Not Yet

Example 5

High 53.3% or higher, Intermediate 46.7% or lower, Low 0%

Yes Not Yet

Example 6

Reduce the amount of risky behaviors through the development of character values.

References for Today's Workshop

Iowa Department of Education. *Data Analysis to Goal Setting: Writing Quality Goals*, Technical Assistance Document. January 2002

Wahlstrom, Deborah. *Using Data to Improve Students Achievement*. Successline Inc. 2000.

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Which Goals Show Acceptable Progress

Answer Sheet

		Baseline Year Information			Year 2 Improvement Goal Information			
Yes	Not Yet	# of Students Taking Baseline Test	Baseline Score	# of Students Achieving at Baseline Score	# of Students in Year 2	Goal Improvement Score Year 2	# of Students Needed to Meet Year 2 Goal	# of Students the Improvement Represents
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Yes	Not Yet	120	73%	88	118	76%	90	2
Yes	Not Yet	120	73%	88	118	78%	92	4
Yes	Not Yet	120	73%	88	118	81%	95	7
Yes	Not Yet	120	73%	88	118	83%	98	10

Which Type of Goal

1. Increase number of students showing one year's growth using ITBS/ITED and other assessments.
2. 60% will meet or exceed the standard, an increase of 21%
3. The percent of 11th grade students scoring in the proficient level on the ITED Math test will increase.
4. Eighth-grade math: 5-8 students will improve on data interpretation skills (reading and comprehending graphs, charts, etc.)

Who is in the Target Group

1. Maintain 90% of the students in grades 3-11 at above proficient level in math as measured by ITBS/ITED.
2. Increase math computation in grades 2-4.
3. 3% of our students in all grades 3-8, who are less than proficient will move to the proficient range as measured by the Mid-Iowa Achievement Level Test (MIALT).
4. Writing effectiveness: the percent of students scoring at standard will increase 3%. Fifteen percent will meet the standard with honors (increase of 4%).