Growing Towards Success
Minnesota's Growth Model

Minnesota Department of Education

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Outline

- Overview
- Development of Minnesota's Growth Model
- How Minnesota's Growth Model is calculated

Overview: Minnesota's Growth Model

- Provides a picture of how our schools and districts are helping students grow in their mastery of Minnesota's academic standards.
- Provides educators, parents, and community members with detailed information on growth for schools and districts, including grades and subgroups within schools and districts.
- Provides educators with additional detailed information on growth at the student level that allows for additional analysis, such as at the classroom level.
- Goals:
  - Provide a measure of school performance that complements current status measures
  - Identify areas of strength, particularly schools that are helping their non-proficient students grow at an accelerated rate

Development of Minnesota's Growth Model

- In the summer 2008, MDE began development of a growth model for Minnesota schools and districts.
- Values:
  - Simplicity
  - Understood by a general audience
  - Useful to parents
  - Useful to educators
  - Measures growth to academic standards
- Input from experts and stakeholders resulted in modifications that helped shape the final model.
- Solicited feedback from parents on the display.
- Developed two versions of the reporting
  - A public version available on the School Report Card
  - A secure version available in the Educator Portal

How Minnesota's Growth Model is calculated

1. Determine Statewide Growth Targets.
2. Calculate Proficiency and Growth at the individual student level.
3. Determine measures for schools, districts and the state by calculating the number and percent of students in six categories based on proficiency and growth.
    - Overall
    - By grade
    - By subgroup
    - By grade & subgroup

1. Determine Statewide Growth Targets

- Principles of statewide growth targets
  - Principle 1: The targets should be empirically based.
    - Based on the actual growth observed in Minnesota students between 2006 and 2007 and between 2007 and 2008.
  - Principle 2: The targets should be fair.
    - Established for groups of students based on their year 1 scale score, with students scoring the same or similarly sharing the same target.
    - The groups of students should be sufficiently large to allow them to be representative, but as narrow as possible to allow for students to be compared to students that are much like them.
  - Principle 3: The targets should be meaningful.
    - After initial determination, performed an analysis that showed that the targets measure growth towards proficiency.

1. Determine Statewide Growth Targets

- Imagine a student who in grade 3 achieves a 339 scale score on her Reading MCA-II assessment.
  - Student's Achievement Level is Does Not Meet the Standards.
  - Student would have had to score 340 in order to achieve Partially Meets the Standards.
  - Student would have had to score 350 in order to achieve Meets the Standards.
- What is a empirical, fair, and meaningful expectation for her grade 4 Reading test?

1. Determine Statewide Growth Targets

1. Find other students who scored about the same as our student in 2006 or 2007.
2. Link the students Grade 3 Reading results to their Grade 4 Reading results.
3. Determine the average performance on Grade 4 Reading for this group of students.
4. Determine the variability of that average performance.
5. Establish three target ranges (low, medium and high)
   - One-half the standard deviation above and below the mean was selected.
     - Analysis showed that the targets measure growth towards proficiency.
       - Students annually making their high target would be very highly likely to achieve or maintain proficiency.
       - Students annually failing to make the high or middle target would be very highly likely to never achieve or lose proficiency.
6. Repeat this process for each scale score value in Math and Reading.

2. Student-level Calculations

1. Determine which students are included
   a) Only include students that the school/district has had a reasonable opportunity to educate.
   b) Only include students that have a prior score.
   c) Only include students for whom we can establish a empirical, fair, and meaningful expectation for growth.
   – Must be MCA-II or MTELL in year one and MCA-II or MTELL in year two.
   – Must have regular grade progression (e.g. 3 to 4, 8 to 10).
   – Must not be MTAS in either year one or year two.

2. Student-level Calculations

2. Determine students' proficiency status in math and reading.
   – Based on the achievement standards established in 2006 via the MCA-II standard setting process.
   – Use students' achievement level from the prior year (grade 3 achievement level for current grade 4 students).
     - D = Does Not Meet the Standards
     - P = Partially Meets the Standards
     - M = Meets the Standards
     - E = Exceeds the Standards
   – Students scoring M or E are considered proficient.

2. Student-level Calculations

3. Determine students' level of growth in math and reading.
   a) Based on year 1 scale score, look up targets for year 2 low, medium and high growth.
   b) Based on earned year 2 scale score, assign low, medium or high level of growth.

3. School and District measures

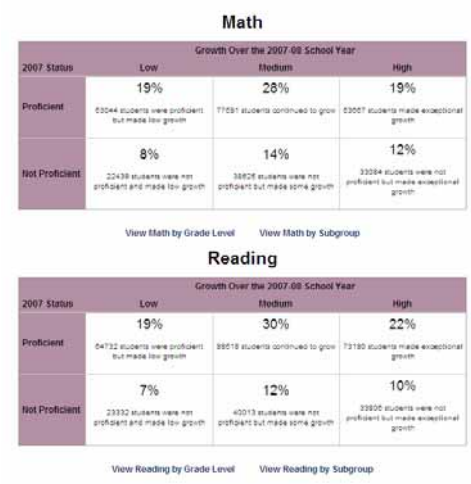
- Students' Proficiency and Growth measures places place them in one of six categories:

	Growth over the Current Academic Year		
Prior Year Status	**Low**	**Medium**	**High**
Proficient	*Students were proficient but made low growth.*	*Students continued to grow.*	*Students made exceptional growth.*
Not Proficient	*Students were not proficient and made low growth.*	*Students were not proficient but made some growth.*	*Students were not proficient but made exceptional growth toward proficiency.*

3. School, District and State measures

- For each subject math and reading, determine the number and percent of students in the six categories for each school and district and the state.
- Allow for display of numbers and percents within schools, districts and the state by grade, by subgroup, and by grade and subgroup combined.
- An entity must have at least 20 participants in a subject to be measured in that subject.

Example of Growth Tables (with 2008 statewide results)



Math

2007 Status	Growth Over the 2007-08 School Year		
	Low	Medium	High
Proficient	19%	28%	19%
Not Proficient	8%	14%	12%

View Math by Grade Level View Math by Subgroup

Reading

2007 Status	Growth Over the 2007-08 School Year		
	Low	Medium	High
Proficient	19%	30%	22%
Not Proficient	7%	12%	10%

View Reading by Grade Level View Reading by Subgroup

What's next?

- Starting late summer 2009, data will be available for 2008-2009 school year.
- Data for 2007-2008 will continue to be available.
- Plans for additional enhancements
  - Additional views of data
  - Graphical displays

Visit the School Report Card for 2008 results

You can follow these links to

- View the statewide growth models. *(http://education.state.mn.us/ReportCard2005/index.do)*
- Visit the School Report Card Web page; lookup your school or district. *(http://education.state.mn.us/mde/Academic_Excellence/School_Report_Cards/index.html)*
- Review the technical documentation on the model. *(http://education.state.mn.us/MDE/Data/Data_Downloads/Accountability_Data/Growth/index.htm)*

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