

Educational Policy
Midterm Exam
Educational Measurement
March 30, 2011

Name: _____

Part A Please define the following terms:

1. Measurement error

2. Sampling error

3. Reliability

4. Validity

Part B Please use the figure below (fig 1) to answer the questions 5 & 6:

1. How did do on this test?

SUBJECT AREA	PERFORMANCE LEVEL	SCALED SCORE	DISPLAY OF SCORE AND PROBABLE RANGE OF SCORES			
			Warning	Needs Improvement	Proficient	Advanced
Mathematics	Proficient	280			280	

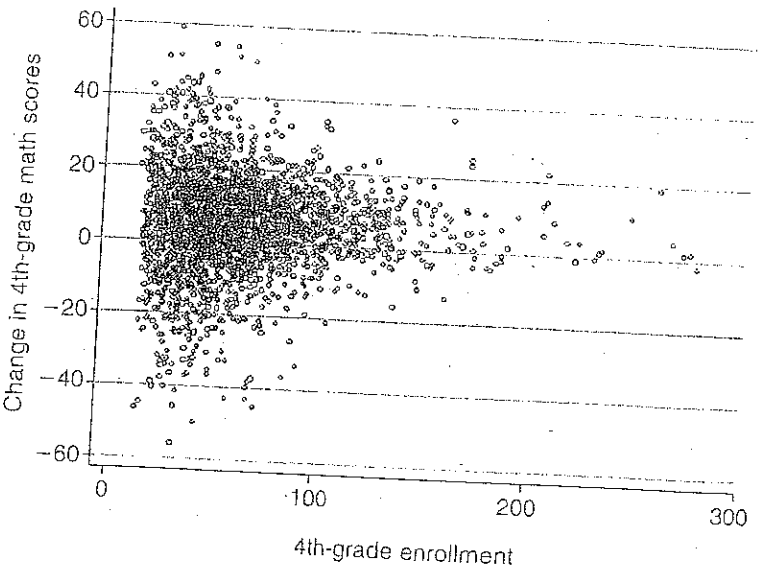
A sample MCAS report to parents. Massachusetts Department of Education, MCAS Tests of Spring 2002, Parent/Guardian Report.

5. Please explain what the horizontal bar (the one in the circle) indicates

(fig 1)

6. Please explain what the vertical bar indicates

Part C Please use the figure below (fig 2) to answer the questions 7 & 8:



One-year change in mean test scores of fourth-grade students in mathematics, California STAR assessment. Adapted with permission of the authors, from Thomas J. Kane and Douglas O. Staiger, "The Promise and Pitfalls of Using Imprecise School Accountability Measures," *Journal of Economic Perspectives* 16, no. 4 (2002), pp. 133-54.

(fig 2)

7. Please explain what this graph represents
8. Please explain how this graph might be used to support the argument that student scores on a single test are not an appropriate indicator of a school's success (especially small schools)

Part C Please answer the following questions (please make sure to address all parts of the questions):

9. You are a parent moving into a new school district and want to figure out the “best” school to send your child. Your son is in the 4th grade. The district has three elementary schools. You have found the latest fourth grade test scores for the three schools (the percentage of students passing each the English and math tests follows). Are test score data helpful in your decision? What other information would you want to know before you make a choice? How can we apply this scenario to larger policy discussions regarding school and teacher quality?
- School A: 95% English: 97% Math
 - School B: 78% English: 81% Math
 - School C: 52% English: 72% Math

10. The Springfield Gazette reports that 98 % of 8th grade students in a particular state are proficient in Math. Please explain why we may want to hold off on our celebration? What other data could the state provide that would increase the probability of a celebration?

11. What is standard-based reporting? Why is it so popular? What are the weaknesses of using standards-based reporting of student achievement?

12. What is a “bubble kid”? What is the relevance of a bubble kid to our discussion of educational measurement and policy?

13. What are the advantages of using scales scores for reporting student achievement?

14. Is THIS test valid? Explain.