Challenges in Assessing Student, School, District, State, and National Performance at the High School Level

Lauress Wise
Human Resources Research Organization (HumRRO)

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High School Assessments

Presentation outline

- High School Assessment Questionnaire
  - Self Assessment
- Key Technical Issues
  - Focus on Issues Unique to High School Assessments
- Some Alternative Models
  - Table Talk
High School Assessment Questionnaire

- Please take a few minutes to complete my high school assessment questionnaire.

  - What questions are you interested in answering?
  - What types of assessments are you interested in using at the high school level?

- Intended to help you frame questions to ask during this presentation.
  - *(This is the interactive part).*
Questions in Search of Data

➢ About Students:
  ▪ Mastery of basic skills
  ▪ Mastery of advanced skills
  ▪ Diagnosis of strengths and weaknesses
  ▪ Readiness
  ▪ Non-academic traits

➢ For:
  ▪ Promotion/graduation decisions
  ▪ Targeting remediation
  ▪ Improving instruction

➢ About Schools (states, the nation, the world):
  ▪ Average score of students
  ▪ Value-added
    ▪ All students
    ▪ Targeted groups
  ▪ Who is being left behind?

➢ For:
  ▪ Rewarding high-performing schools
  ▪ Shaming other schools (or worse)
  ▪ Teacher pay decisions
  ▪ Improving instruction

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High School Assessments
The Many Types of Assessment

- Classroom assessments
  - For diagnosis
  - For grading
- State-wide end-of-course tests
  - Including AP like assessments
- Assessments linked to grade-level standards
- Nation-wide assessments
  - With national norms
  - Linked to “generic” standards
- International assessments

- College entrance tests
  - General skills
  - Subject-specific tests
- College placement tests
- Work-readiness tests
- Vocational interest and guidance tests
- Personality tests
Overview of Key Technical Issues

Technical Issues for All Assessments
- Validity – Does the assessment measure what we want it to?
  - Clarity of Content Specifications
  - Alignment Studies
- Reliability – How accurate are the resulting scores?
  - Classification or Decision Accuracy
- Diagnostic Utility – Do results indicate strengths and weaknesses?
- Accessibility for English Learners and Students with Disabilities

Particular Concerns for High School Assessments
- Participation and Effort
- Curricular/Instructional Validity
- Accounting for Dropouts
Participation and Effort

- The main barrier to state-level 12th grade assessments for NAEP is perceived problems with participation and effort.
  - Even if school participation is made mandatory, student participation is not; recent rates have been dangerously low.
  - Students may be unavailable for a variety of reasons, ranging from frequent absences to participation in co-enrollment programs.
  - Results have absolutely no consequences for students and schools.
    - Confidentiality is a key concern for both students and schools.
    - Due to matrix sampling, scores for individual students and small schools would have low reliability.
  - Myth and anecdote concerning a “senior slump” are hard to overcome with data.
Participation and Effort (Continued)

- Also a problem for some state assessments.
  - Not perceived as a problem if results have consequences for the students, such as:
    - Classroom or end of course tests that affect student grades
    - Graduation or college entry tests
  - Participation problems generally solved for census tests used for NCLB.
  - Student effort on NCLB tests with no consequences for students is an open question.
    - Seniors know what “voluntary” means (unfortunately).
Possible Solutions to Participation and Effort Concerns

- Increasing Participation
  - Provide incentives to schools for high student participation.
    - This is how GED gets participation in norming studies.
    - NCLB provides negative incentives.

- Assuring Effort
  - Measure it! (e.g., fit indices, quitting, ref. Cohen)
  - Provide incentives for schools for high levels of student effort.
    - Different incentives work for different students.
  - Introduce (possibly positive) consequences for students
    - Seals and certificates, competitions among classes or schools.
Curricular/Instructional Validity

- What this really means is:
  - Does the student’s curriculum cover the knowledge and skills being assessed?
  - Is instruction in this curriculum adequate?

- What it could also mean is:
  - Does the assessment have a positive impact on curriculum and instruction?

- These are legal issues if the assessment has important consequences for students!
These issues are particularly salient in high school assessments because:

- Different students take different courses.
- There may also be alternative versions of a single course
  - Two-year and one-year Algebra I courses
- Teachers are generally expected to have credentials for the subject(s) they teach.
- English learners and many students with disabilities are further behind and their courses are less likely to cover the general education curriculum.
- Graduation tests trigger extreme legal scrutiny with respect to these issues.
Options for Dealing with Curriculum Diversity

Option 1: Only test material all students should master.

- Advantages:
  - Allows all students to be included.
  - Focus on whether students are being left behind.

- Disadvantages:
  - Ignores high school contributions through elective courses.
  - May lead to focus on “pre-high school” content (or minimal competencies)
  - Still requires evidence that all students have received adequate instruction in this material.
  - Timing questions if instruction follows or significantly precedes the assessment.
Options for Dealing with Curriculum Diversity

Option 2: Only test students completing specific courses.

- **Advantages:**
  - Enables tight correspondence between assessment and curriculum.
  - Allows inclusion of higher-level courses.

- **Disadvantages:**
  - Might promote “gaming” the system by restricting who can take critical courses.
  - Might fail to identify students being left behind because they do not take the course.
  - Difficulties in comparing proficiency across different courses.
  - Students might take course prior to high school.

Hybrid Example: Virginia Graduation Requirement

- Students must pass a fixed number of required and elective end-of-course tests.
Options for Dealing with Curriculum Diversity

Option 3: Assess “Readiness”: What all students need for success in college, job training, and entry into the military.

- Advantages:
  - Content can be based on predictive rather than curricular validity – leave it to districts and schools to figure out how to develop the skills.
  - Likely to include skills (e.g., higher order thinking) beyond minimum competencies.

- Disadvantages:
  - Difficulty in getting agreement on readiness skills:
    - Limited to verbal and quantitative reasoning?
    - Include skills such as teamwork or listening skills or academic learning skills?
    - Predictive validity studies can be difficult and time-consuming.
  - Still leaves out much of what high school currently offer:
    - Specialized content covered by elective courses.

- Watch 12th Grade NAEP for progress on this option!
Case Study: NAEP efforts to assess Foreign Language

- Pilot Test covered Spanish only
- Two levels:
  1. Students with at least one year of instruction in Spanish
  2. Students with more than two years of instruction.
- Argument about inclusion of native speakers of Spanish.
  - Assessing impact of instruction versus ability of American youth to speak Spanish?
- Experts insisted on assessing listening and speaking as well as reading and writing in Spanish.
- Outcome of a Pilot Test:
  - Logistical issues in identifying appropriate students to test.
  - Reliability and logistical concerns in assessing listening and speaking.
  - Assessment of foreign language deferred indefinitely!
Dropouts

What can we say about dropouts?

- Not generally feasible to survey/assess students who have already dropped out.
- Can we say anything about what they learned prior to dropping out?
- Less of a problem for 10th grade census tests, than for 12th grade assessments.

NCLB requires separate accountability for graduation rates.

Better data systems are needed!

- Privacy protection may not be beneficial to students if it means no one realizes that they need help.
What States are Doing

- See handouts for some information on how states are implementing high school accountability and, in some cases, graduation exams.
Audited Transcript Model for High School Assessment

- A New/Old Model: Use transcripts to assess student achievement during high school.
  - Audit/adjust grades through end-of-course assessments.
    - Census or sample assessments
    - Similar to tests used to certify performance in AP courses.
    - Universities often adjust for differences in grading practices based on external test scores or first-year college success.
    - Audit feedback might also improve consistency in grading practices.
  - The National Center for Education Statistics regularly conducts high school transcript studies.
Audited Transcript Model

Some advantages:

- Comprehensiveness: covers all high schools academic content.
- Uses available information: transcripts already maintained for other uses.
- Provides information on particular subjects (percent taking and performance) as well as overall (g.p.a.)
- Includes dropouts.
- Grade metric familiar to policy-makers and the public (arbitrary assessment scales are not).
Audited Transcript Model

- **Disadvantage:** Details not yet worked out.
- **Research Needs:**
  - How to value different transcripts.
    - Importance of different types of courses for readiness.
    - Adjusting for course difficulty and grading practices.
  - How to report results.
    - Overall achievement
    - Subject specific achievement
  - Logistical difficulties
    - Obtaining transcripts
    - In a common electronic form.
Table Discussion

Time Permitting:
- Pick one or two needs of high school assessments that are important to those at your table.
- Suggest the best type(s) of assessments to meet these needs.
- Suggest models for dealing with the technical issues discussed here:
  - Participation and effort
  - Curricular diversity
  - Accounting for dropouts
Some Useful References