Research Related to Purposes and Uses of Summative Data
Assessment

- Assessment is a process of collecting evidence to make informed decisions.
- Assessment is crucial to move from opinions to informed action." (National Research Council, 2001)
Why Do We Give Assessments?

**Summative Uses**
- To determine achievement for grading
- To monitor achievement across or within years
- To evaluate and adjust curricula
- To distribute resources as part of an accountability system
- To determine access to a program, grade level, or other reward

**Formative Uses**
- To plan or adjust instruction for the class
- To plan or adjust instruction for an individual student
Assessment Literacy

• Assessment literacy includes three big ideas: What someone knows about assessment, what someone believes about assessment, and what someone does with assessment.

• An assessment literate individual:
  • Understands the types and purposes of assessment;
  • Believes that assessment is an essential part of teaching and learning;
  • Utilizes data to drive informed decision-making for the success of every child.
An assessment literate teacher:

- Can create and select high-quality assessments aligned to those targets,
- Implements assessments equitably, making appropriate modifications based on student need,
- Employs a variety of assessments that are appropriate for the students and learning targets,
- Analyzes the results of assessments given their knowledge of students, and makes instructional adjustments based on those results.
An assessment literate teacher:

- Understands how to tailor the communication of results to the needs of the intended user,
- Can teach students how to act assertively on their own assessment results to take charge of their own learning success,
- Sees the development of their assessment literacy as a career-long learning process, and
- Advocates for sound assessment practices in instructional and/or policy settings.
The notion of purpose is fundamental to all questions about test quality. Without a clear purpose for giving an assessment, it is not possible to determine whether the assessment yields meaningful information or if it is appropriate to use the scores in making specific decisions.

This concept is so important in educational testing that it is addressed in the very first standard in the Standards for Educational and Psychological Testing, the book that defines expectations for quality and rigor in assessment practices.

“Standard 1.0. Clear articulation of each intended test score interpretation for a specified use should be set forth, and appropriate validity evidence in support of each intended interpretation should be provided.”

(AERA, APA, & NCME, 2014, p. 23)
The Value of Summative Assessment

• Provides evidence of student learning
• Often driven by federal and state requirements; may be used for accountability purposes
• High-stakes assessment
• Often refers to an “end-goal” test that takes place near the end of the school year
• As embodied by statewide standardized tests, summative assessments provide a wealth of data that is useful to educators at the state, corporation, and school levels

Source: https://www.doe.in.gov/assessment/assessment-literacy
“Traditionally, summative assessment refers to the assessment of learning, which is typically gathered at the end of the unit of study .... Assessment data provides a basis for evidence-based monitoring of student learning progress and may help guide students and teachers as they strive to achieve learning goals...”

- Louis Nadelson, “Are They Using the Data? Teacher Perceptions of, Practices with, and Preparation to Use Assessment Data” (52 – 54)
### Purposes and Uses of Summative Data

#### Purposes
- Accountability
- Assessment of student learning, growth, performance, and/or progress
- Determine educator effectiveness of educator
- Evaluate or validate the curriculum
- Measure learning/instructional progress based on standards and learning goals/objectives based on standards and learning goals/objectives

#### Uses
- Differentiate instruction
- Evaluate pace of instruction
- Identify areas of professional development needs to address gaps in instruction or data-related processes
- Make instructional and curricular choices
- Reteach concepts
Purposes of Summative Data: Accountability and Achievement

• Determining Teacher and School Effectiveness
  • Data relied upon by educators, school, and corporation administrators and other essential stakeholders
  • Data gathered by means of state level assessments and as well as interim-district adopted assessments¹

• Reviewing Student Group Performance
  • Gives teachers a big picture and/or baseline knowledge of how the whole class or groups of students had been doing over a period of time²
  • End-of-unit summative assessment data is commonly relied upon to determine student course progress¹

¹(Nadelson et al., 2016) ²(Sun, Przybylski, & Johnson, 2016)
Purposes of Summative Data: Accountability and Achievement

• Summative Assessment Data for Measuring Individual Student Learning
  • Measure the level of student learning at a particular point in time\(^1\)
  • Prepare students for the challenge of standardized tests\(^1\)
  • Form a body of evidence for grading, reporting, promotion, and graduation\(^1\)
  • Communicate mastery of content and skills to the community, corporation, state, and other stakeholders\(^1\)
  • Serve as feedback for both teachers and students, informing them about the levels of targeted content learning\(^2\)
  • Provide a basis for evidence-based monitoring of student learning progress\(^2\)
  • Identify content areas and skills that need to be reinforced and factors that may motivate student learning\(^3\)

\(^1\)(Ronka, Lachat, Slaughter, & Meltzer, 2009) \(^2\)(Nadelson et al., 2016) \(^3\)(Hamilton et al., 2009)
Purposes of Summative Data: Evaluating Effectiveness

• Summative Assessment Data Used for Teacher Evaluation
  • Many states have implemented policies that require the inclusion of assessment results into teacher evaluation systems.¹
  • The Elementary and Secondary Education Act (ESEA) flexibility guidance of 2012 requires that state departments of education receiving flexibility from school accountability requirements develop educator evaluation systems that can be used to assess the performance of all teachers.¹

• Summative Assessment Data for Effective Instruction
  • Large-scale educational assessments in the U.S. are used as policy tools for improving instruction and evaluating educational programs and the effectiveness of educators.²
  • Student-learning data may be most relevant and critical to teacher effectiveness Having data upon which to base instructional and curricular choices increase teachers’ ability to align their practices with the needs and capacity of their students.³

¹(Kearns, Kleinert, Thurlow, Gong, & Quenemoen, 2015); ²(Lane, 2014); ³(Nadelson et al., 2016).
Uses of Summative Data: Instructional

• Summative Data to Influence Instruction and Improve Student Outcomes
  • Analyzing data diagnostically to inform decisions about how to improve student achievement is an effective method for helping teachers change instruction and impact student learning positively.1
  • Evidence about student learning will allow teachers to
    • prioritize instructional time
    • better target instruction towards students’ individual needs
    • refine instructional methods2
  • Assessment data is an effective tool to utilize for conducting curriculum alignment studies. Analyzing student results from these assessments can yield better aligned units and lessons that focus on the standards and student needs.1

1(Datnow & Hubbard, 2016)
2(Thomas & Huffman, 2011)
Uses of Summative Data: Professional

• Summative Data to Guide Professional Development
  • Paramount need for teachers to be assessment-literate
  • Based on teachers’ reports of needing support and guidance, it is beneficial to use summative data to create professional learning opportunities for teachers. First examining what they already know about assessment and then developing their skills in order to create “actionable instructional strategies”\(^1\)

• Summative Data Talks in Professional Learning Communities
  • Professional collaboration proven to be effective in developing and empowering teachers’ skills at analyzing summative data and implementing responsive strategies
  • Student achievement data is more productively used when the data teachers collect is a part of a larger system of data collection and analysis that includes the school and district
  • “Teacher evaluation of assessment data in the context of professional learning groups tends to be more effective for guiding their practice, as opposed to individual teachers evaluating data on their own.”\(^2\)

\(^1\)(Kenny, Bloome, Maeda, 2016) \(^2\)(Nadelson et al., 2016)
The research tells us that summative data:

- Is useful at many levels, from the state to the corporation, to the school.
- Can support evaluation and validation of curriculum and instructional practices.
- Fulfills federal requirements.
- Provides evidence of student learning and progress.
- In combination with other sources of data (e.g., formative) leads to informed instructional decisions to impact student learning and progress.
- Can be evaluated in the context of professional learning groups to guide practice.


