IDC IDEA DATA CENTER

Building Capacity for High-Quality *IDEA* Data

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In collaboration with **DaSy, ECTA, NCSI, & NTACT**

Measuring Growth and Impact in SiMR Areas by Subgroups

SSIP Interactive Institutes

Albuquerque, NM; April 29-30, 2015
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Session Purpose

- For states
  - With SiMRs that target subgroups
  - That may later analyze data by subgroup
- Increase awareness of data quality considerations/ potential hurdles to assessing outcomes by subgroup
  - Identify potential red flags to address proactively
- Set the stage for state team discussions and planning
  - Share approaches and resources states can consider

Session Overview

- General considerations
  - Purpose of assessment
  - Validity and sensitivity
  - Small sample sizes
- Students with disabilities (SWDs)
  - Challenges with measuring growth
  - Alternate Assessment (AA- AAS)
- English learners (ELs)
  - Inferences and norms
- Wrapping Up and Moving Forward

General Considerations

Purpose of Assessment

- Tests may be designed with different purposes in mind
  - Accountability – generally focused on current level of performance for a large group of students compared to grade- or age-level expectations
  - Assessment of individual student's learning – current levels and meaningful growth for that student
- To evaluate the impact of state strategies on improving outcomes for specific subgroups, measures must be **sensitive to change** for those subgroups

Part B Example: Indicator 3

3. Participation and performance of children with IEPs on statewide assessments:

A. Percent of the districts with a disability subgroup that meets the State's minimum "n" size that meet the State's AMO targets for the disability subgroup

B. Participation rate for children with IEPs

C. Proficiency rate for children with IEPs against grade level, modified, and alternate academic achievement standards

[20 U.S.C. 1416(a)(3)(A)]

Part C Example: Indicator 3

3. Percent of infants and toddlers with IFSPs who demonstrate improved:

A. Positive social-emotional skills (including social relationship)

B. Acquisition and use of knowledge and skills (including early language/communication) and

C. Use of appropriate behaviors to meet their needs

[20 U.S.C. 1416(a)(3)(A) and 1442]

Considerations for Subgroups

- Validity and reliability
  - Extent of inclusion in test's norming sample
  - Does disability or limited English proficiency introduce construct-irrelevant variance?
- Sensitivity
  - Floor effects – test may not reliably distinguish among lowest levels of performance
  - Substantial growth may not be reflected on grade/age-level test (e.g., a 5th grader advancing from the 2nd to 4th grade level is still below grade level)

What Can We Do?

- If stronger measures are available, can they be used to:
  - Measure the SiMR?
  - Examine the technical adequacy of your current SiMR measure for this subgroup?
  - Measure progress towards the SiMR?
- If no available measure is adequately normed to show validity, reliability, and sensitivity for this group, examine technical adequacy as more data are collected for this subgroup using current measure

Small "N" Sizes

- State may target a subset of districts
- Subgroups may have populations too small for district or school to report
- Error increases with decreasing N, threatening comparisons
  - Over time
  - Across districts, schools, or local programs
  - Of actual performance to target
- Percentages may be misleading for small samples

(Winer, Hebbeler, & Gillaspy, 2014)

What Can We Do?

- Interpret small data sets with caution
- Consider ways to increase N
  - Aggregate across more programs, schools, districts
  - Encourage increased participation
- When comparing programs, limit to programs with N of 30 or more, if possible

(Winer, Hebbeler, & Gillaspy, 2014)

More Information on Data Quality

- Center for IDEA Early Childhood Data Systems (DASY) http://www.dasycenter.org/
  - DaSy Data System Framework http://www.dasycenter.org/framework/index.html
- Early Childhood Technical Assistance Center (ECTA) http://ectacenter.org/default.asp
  - Outcomes Measurement http://ectacenter.org/eco/
- OSEP Ideas that Work
  - Toolkit on Teaching and Assessing Students with Disabilities https://www.osepideasthatwork.org/toolkit/

Challenges in Measuring Achievement Growth of Students with Disabilities (SWDs)

Challenges in Measuring Achievement Growth of SWDs

- Limited research on SWDs' growth on large-scale achievement tests
- Diversity of SWDs
- Eligibility and mobility in/out of services
- Concerns with validity of inferences
  - Retention
  - Low scores

(Tindal, Schulte, Elliot, & Stevens, 2011)

Technical Challenges

General

- Tracking students over time
- Common reporting scale
- Precision and accuracy
- Missing scores
- Cohort stability
- Non-linear growth
- Alternate assessment

(Tindal, Schulte, Elliot, & Stevens, 2011)

Alternate Assessments

- Eligibility
- Comparison groups for certain grade levels
- Retention/grade-level consistency
- Reporting levels/ comparability of scales
- Within-group variability

(Farley, Saven, & Tindal, 2013)

What Can We Do?

- Some challenges are addressed by choice of measure and data system
- Growth should be compared to similar peers, considering as much as possible
  - Baseline performance
  - Disability category
  - Other subgroups (language, ethnicity, SES)
  - Communication system/response format

Additional Resources on Assessment for SWDs

- National Center on Educational Outcomes (NCEO) http://www.cehd.umn.edu/nceo/default.html
  - Topics for SWDs http://www.cehd.umn.edu/NCEO/TopicAreas/
- National Center on Assessment and Accountability for Special Education (NCAASE) http://www.ncaase.com/

English Learners (ELs)

Concerns With Validity of Inferences

- Tests generally designed and normed for native English speakers
  - May have lower validity and reliability for ELs
  - May not specifically examine ELs with disabilities
- Possible construct-irrelevant variance
  - Language may confound assessment of content area outcomes
  - Linguistic complexity may increase measurement error

(Abedi, 2006)

Norms and Expected Growth for ELs

- Very heterogeneous group
  - Language background
  - Educational history
  - Disabilities
- Expected growth may not be established

What Can We Do?

- Growth should be compared to similar peers, considering as much as possible
  - Native language
  - English language proficiency
  - Educational history, including
    - Years in US schools
    - Type of program
  - Disability category

More Information From the National Center on Educational Outcomes (NCEO)

- Topics for ELs with Disabilities http://www.cehd.umn.edu/NCEO/TopicAreas/ELLs/default.htm
  - Reporting Educational Results for English Language Learners with Disabilities http://www.cehd.umn.edu/NCEO/TopicAreas/ELLs/Reporting/ReportingELLs.htm

Wrapping Up and Moving Forward

More Help Is On the Way!
NCSI Thought Leader Forum

- The National Center for Systemic Improvement (NCSI) recognizes these challenges
- One of the Center's Thought Leader forums will target measuring and reporting growth in performance for students with disabilities
- Be on the lookout for future resources at http://ncsi.wested.org/

Learn From Each Other!
IDC Learning Community

- https://ideadata.org/learning-community/
- Connect with state and local data managers, state special education directors, 619 coordinators, and other experts in the field
- Discussions related to
  - Data Managers (Parts B and C)
  - Growth Models for SSIP
  - Using Family Data for SSIP
  - Indicator B3 Assessment
  - Create your own!

Take Away

You and your team can develop a plan to address the potential hurdles to assessing outcomes by subgroup…

And you don't have to think through it alone!

References

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For More Information

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