



Guidance for Reporting and Analyses

IL TAC Meeting

April 21, 2021



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Introduction

- Guiding Questions
 - *What are some promising practices for communicating assessment results in 2021?*
 - *What are some analyses that may be useful to better understand the impact of learning disruptions on student achievement?*
- The information in this presentation builds on the TAC's previous guidance and draws from additional sources
- The purpose is to help describe the range of alternatives in order to identify a manageable set practices that represent the highest priorities.

Important Assumption

- Except as noted, the ideas in this presentation are based on the assumption that technical properties and administration conditions are consistent with established practices
- This is not to suggest we shouldn't question this assumption. Rather, it's simply an acknowledgment that the scope of this presentation is more focused on threats related to:
 - Uneven participation
 - Opportunity to learn

Threats to interpretation and use

- Variable participation rates and uneven opportunity to learn, among other factors, threaten:
 - Any consequential use that assumes ‘attribution’ (accountability)
 - Generalizability
 - Longitudinal comparability
 - Trend
 - Growth
 - Within-year comparability, including across levels, e.g.:
 - School x school
 - School x district
 - Group x group

Reporting Recommendations (1)

- Review current public reporting initiatives and ***remove problematic features*** such as:
 - Data displays or reports that provide ‘side-by-side’ comparisons or displays, especially across years unless there is evidence to support valid interpretations
 - Comparisons within and across reporting levels
 - School x school
 - School x district
- ***Add context to summary reports*** such as:
 - Participation rates or learning models
 - Include explanations or notes about limits to interpretation (e.g. not comparable to prior years)

Reporting Recommendations (2)

- Consider *supplemental initiatives* to support appropriate interpretation and use, such as:
 - Briefs for senior leadership (e.g. guidance to the superintendent or Board)
 - Support to accompany media release (e.g. set-up meetings to educate media, prepare guidance to support appropriate interpretation and use)
 - Resources for parents
 - Training for educators

Questions for TAC

- What feedback do you have about the assessment reporting recommendations?
- What additional recommendations would you suggest?
- What conditions or criteria should ISBE use to determine when results should be suppressed or flagged (e.g. participation rate less than x)?

Analyzing Assessment Data

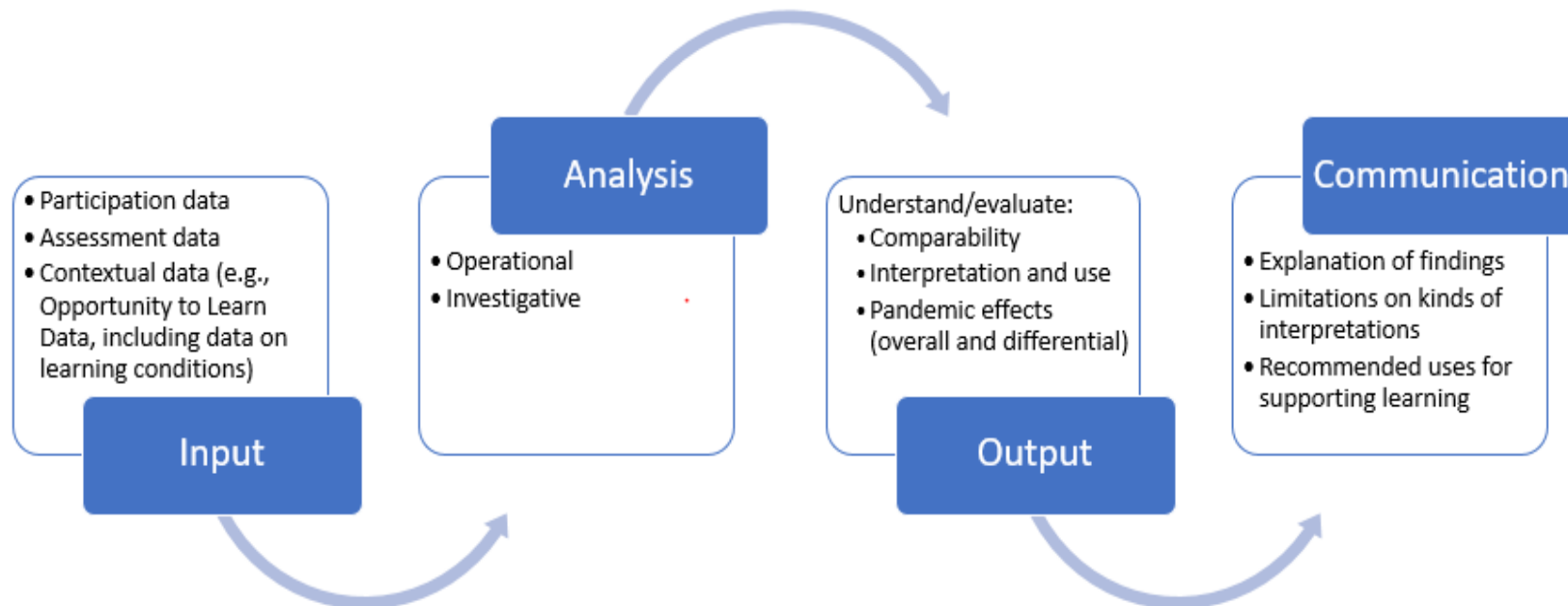
Some Guiding Principles

- Higher-level analyses are more trustworthy than lower level
- Clarify what/who is missing and (when possible) provide insights about the likely implications
- Context matters – explore comparisons and interactions when conditions support (adequate participation/representation)
- Whenever possible, validate potential findings with multiple sources of evidence

The Center's Analysis Framework

Two strands




- **Operational:** Procedures and analyses meant to support the technical quality, intended interpretations, and uses
- **Discovery:** Prioritized analysis aimed at understanding the effects of the pandemic on learning and performance



From Dadey, Keng, Boyer, & Marion 2021

The Center's Analysis Framework (2)

Key Questions:

- Who participated in the test in 2021? 
- What do the test scores mean in 2021?
- Are the individual and aggregate scores in 2021 comparable to those in previous years?
- What are appropriate (or inappropriate) uses of test scores in 2021? 
- Which schools and districts have the largest decreases in performance?
 - What characteristics explain, or at least associate with, these decreases?
- What subgroups display the largest decreases?
- Do students in remote learning conditions perform differently than those in in-person learning conditions? 
- Etc.

Andrew Ho's Three Recommended Test Score Metrics for 2021

- **Match Rate:** report percentage of students with comparable test scores from 2019 to 2021 and compare with similar percentage from 2017 to 2019.
- **Fair Trend:** report academic progress for matched groups from 2019 to 2021 and compare to matched group from 2017 to 2019.
- **Equity Check:** identify 'unmatched' students from 2019 to 2021; find their academic peers in 2017 and report progress to 2019. Estimates 'best case outcome' for missing students.

(Ho, A., 2021). *Three test-score metrics that all states should report in the COVID-19-affected spring of 2021.*

Retrieved from: <https://scholar.harvard.edu/files/andrewho/files/threemetrics.pdf>

Potential Analysis Plan (1)

Evaluate Completeness

- **To what extent are data complete?**
- Examples:
 - Compare participation rates by state, district, school, and student group for 2021
 - Compare participation rates by learning model
 - Describe demographic and achievement characteristics of 'missing students' by comparing 2019 to 2020

Produce Descriptive Comparisons

- **What are the performance differences within year for school and groups by selected factors?**
- Examples:
 - Report means and/or proficiency rates for schools and groups meeting participation thresholds
 - Compare results with factors such as learning model
 - List and describe schools/groups excluded from the analyses

Potential Analysis Plan (2)

Explore Performance Trends

- **What are the performance differences from 2019 to 2021 for schools and groups by selected factors?**
- Examples:
 - Compare changes in means or proficiency rates for matched samples (e.g. propensity score matching) for 2019 to 2021.
 - Compare with similar changes from 2017 to 2019.
 - Cross with selected factors, such as learning models.

Estimate Impact of Missing Data

- **What is the estimated performance of students not tested in 2021?**
- Examples:
 - Compare performance differences at the district and group level for participants vs. non-participants in 2019.
 - Compare performance changes for non-participants 2017 to 2019 to participants 2019 to 2021 (i.e. Ho's 'Equity check').

Questions for TAC

- What are the primary uses that can be supported (e.g. school improvement, program evaluation)? In that context:
 - What feedback do you have about the analysis recommendations?
 - What additional recommendations would you suggest?
 - What are the prioritized assessments and factors that should be explored and why (e.g. selected student groups such as SWD or EL, learning model, other)?