2023-2024 SEED Administration

Research Analysis and Reporting

Analysis Plan

Upon completion of the SEED pilot administration, several analyses are planned to support the work of the interpretive panel. First, descriptive statistics and graphic displays will be produced to examine the raw student responses. Questions asked at this stage include: Are the data reasonable? Do response frequencies resemble results from similar student surveys? Are there categories that were under- or over-used? Have there been any errors in data processing or transfer?

Second, relationships among item responses will be examined. This step is similar to item analysis for achievement tests (e.g., proportion of responses by reporting category, point-biserial correlation coefficients, etc.). For items intended to measure the same construct, such as Sense of Belonging, the responses of each student are expected to be correlated. To the extent that "item to total construct" correlations are lower than usual, the question may be worded confusingly, vaguely (or too specifically), or use unfamiliar vocabulary and difficult syntax. This analysis phase is intended to identify flaws that may result in exclusion of the item from reporting.

Third, the "dimensionality" of the survey constructs will be confirmed (via confirmatory factor analysis [CFA] or item response theory [IRT]). Generally, it is desirable to form scales based on responses to several items that get at the same concept. The scaling process is intended to capture the general construct by combining answers to specific questions that students can answer objectively. The scaling process also increases the reliability and precision of the measure, compared to a single item. Of course, to the extent that an item is *intended* to elicit unique information, such as the opportunity to learn a specific skill, the scaling step may be unwarranted or undesirable.

Fourth, after the quality control and dimensionality steps are completed, items will be examined for possible fairness issues. Differential item functioning (DIF) examines differences in item response probabilities by different demographic groups (e.g., gender identity, racial/ethnic identity, English learner status, IEP status) conditioned on the same level of the underlying construct. Evidence of DIF does not necessarily mean an item is biased in favor of one group over another; rather, it serves as the starting point for thorough review of item wording from the perspective of the ODE fairness and sensitivity criteria cited earlier. Items may be dropped from the survey due to reviewer confirmation of a fairness issue.

Finally, Oregon's Technical Advisory Committee (TAC) will be asked to weigh in on the results of the analyses described above and suggest additional analyses and survey revisions. The SEED administration during 2023-24 will enable analysis with concurrent achievement measures as well as other meaningful outcome measures such as 9th Grade on Track. Additional feedback will be requested from focus groups of teachers, administrators, policymakers, and community members.

Reporting plan

As mentioned at the beginning, the primary purpose of the SEED Survey is to support instructional program improvement. The survey is intended for use by educators at the district level in a collegial manner to examine a broad array of factors that support student learning and determine the need for changes in instructional program resources and practices and to design strategies for supporting students and families.

To this end, the SEED data will be reported at a level of detail that conveys actionable information at the district level or higher. At this time, ODE is not able to report the SEED data disaggregated on the basis of racial/ethnic identity, IEP status, English learner status, economic disadvantage, or other demographic factors. ODE is working towards offering that reporting resource.

Constructs will <u>not</u> be combined into an overall "quality index" or similar summary.

Reporting from the 2023-24 Administration

- The SEED component of the Oregon Statewide Assessment System is designed to contextualize and describe the conditions of learning for the purpose of instructional program improvement. The SEED fits within a broader theory of action that privileges local capacity-building over public accountability.
- A robust technical report following the 2023-24 administration will incorporate additional achievement measures. House Bill 2656 requires all school districts to provide students with an opportunity to take the SEED Survey, which ODE expects will yield the highest level of state-wide participation.
- Concurrent relationships with other surveys (e.g., NAEP Educator Survey, Student Health Survey, possible district survey partnerships) will be used as a source of external validity information at the school level. The SEED data in combination with same-student achievement measures also will support internal validity analyses.
- Decisions about public reporting at the school and district level will depend on discussions with education and community partners.