

Alaska System of Academic Readiness (AK STAR)

AK STAR

In the 2021-2022 school year, the Alaska Department of Education and Early Development (DEED) administered a new assessment system for grades 3-9 in English language arts (ELA) and mathematics, the [Alaska System of Academic Readiness \(AK STAR\)](#). AK STAR brings together the best of interim and summative assessments to help inform instruction and provide information to students, families, educators, and leaders.

During the spring 2022 administration, 77,623 students across Alaska took both the MAP Growth interim assessment and the AK STAR summative assessment over the span of several weeks to ensure AK DEED and NWEA had the necessary information to report on the connections between MAP Growth and AK STAR.

OBSERVATION

DEED and NWEA reviewed how students performed on the MAP Growth assessment compared to how they

performed on the AK STAR summative assessment. [Table 1](#) illustrates the percentage of students that scored in each MAP Growth percentile ranking as either “Proficient or Advanced” or “Approaching Proficient or Needs Support” on AK STAR. [Table 2](#) provides an additional view, showing the percentage of students scoring at each AK STAR achievement level across all MAP Growth percentile rankings.

Based on student scores across the two assessments, as seen in [Table 1](#) and [Table 2](#) there was a high positive correlation of 0.84 between scores on these two assessments in spring 2022, meaning the vast majority of students demonstrated relatively consistent performance on MAP Growth and the AK STAR summative assessment in spring 2022. Students with higher scores on one assessment were much more likely to have higher scores on the other. This level of correlation is consistent with other comparisons where two tests measuring similar constructs administered in approximately the same time frame.

Table 1 ▶

“Proficient or Advanced” or “Approaching Proficient or Needs Support” scores in each percentile range on MAP Growth

| map GROWTH Student Percentile Ranking | AK STAR Proficient or Advanced | AK STAR Approaching Proficient or Needs Support |
|--|-----------------------------------|--|
| > 80th HIGH | 93% | 7% |
| 61-80th HIGH AVERAGE | 59% | 41% |
| 41-60th AVERAGE | 20% | 80% |
| 21-40th LOW AVERAGE | 4% | 96% |
| LOW < 21st | <1% | 99% |

Table 2 ▶

Percentage of students scoring at each AK STAR achievement level across MAP Growth percentile rankings

| AK STAR Achievement Levels | mapGROWTH Percentile Ranges | | | | |
|----------------------------|-----------------------------|-----------------------------------|-------------------------------|------------------------------------|--------------------------|
| | LOW <21st Percentile | LOW AVERAGE 21-40th Percentile | AVERAGE 41-60th Percentile | HIGH AVERAGE 61-80th Percentile | HIGH >80th Percentile |
| Needs Support | 92.51% (18,215) | 65.6% (9,994) | 30.45% (4,866) | 7.86% (1,198) | 0.81% (93) |
| Approaching Proficient | 7.25% (1,428) | 30.91% (4,716) | 49.09% (7,845) | 33.06% (5,040) | 6.1% (698) |
| Proficient | 0.23% (45) | 3.53% (538) | 19.81% (3,166) | 50.37% (7,679) | 41.07% (4,703) |
| Advanced | 0.01% (2) | 0.06% (9) | 0.66% (105) | 8.71% (1,327) | 52.02% (5,956) |

Variations observed in [Table 2](#):

- If we define score variations as students with “High” or “High Average” MAP Growth scores being classified as “Needs Support” on the AK STAR summative assessment or those with “Low” and “Low Average” MAP Growth scores being classified as “Advanced” in AK STAR, then 1,302 students (dark shaded cells) had score variations. Conversely, 76,321 students (light shaded cells) had relatively consistent performance between MAP Growth and the AK STAR summative assessment.
- The specifics on the score variations:
 - 93 students out of 77,623 students (0.81%) had percentile ranks on MAP Growth that were above the 80th percentile but were classified as “Needs Support” on AK STAR.
 - 1,198 students (7.86%) had percentile ranks on MAP Growth that were between the 61st and 80th percentile but were classified as “Needs Support” on AK STAR
 - Nine students (0.06%) had percentile ranks on MAP Growth that were between the 21st and 40th percentile but were classified as “Advanced” on AK STAR
 - Two students (0.01%) had percentile ranks that were less than the 21st percentile in MAP Growth but were classified as “Advanced” in the state summative.

Many factors could have impacted how a student performed across the two assessments, including:

- Timing of administrations: Assessments were administered over the span of several weeks.
- Different levels of test anxiety: MAP Growth is administered during regularly scheduled class periods while summative assessments are scheduled events taking up longer periods of the school day. These differences in administration could possibly lead to increased test anxiety for the summative assessment.
- MAP Growth assessments are norm referenced (how a student performs compared to other students) and measure a student’s knowledge at a point in time adapting to pinpoint student learning. Summative assessments are criterion referenced (how a student performed against grade-level standards) and based on grade-level standards to measure students’ accumulated knowledge. Some students may have had some knowledge loss or gaps for various reasons when taking a summative assessment.
- Other factors such as testing fatigue, illness, motivation or confidence, and testing environment.

POTENTIAL REASONS FOR VARIATIONS

The types of variations seen in [Table 1](#) and [Table 2](#) in student scores on two assessments, when a large number of students take the assessments, is expected.

Figure 1 ▶

Student scenario with high score in MAP Growth and Needs Support in AK STAR



To illustrate a potential reason for these score differences, imagine Student A, as seen in Figure 1. Student A took the MAP Growth assessment and ranked at the 90th percentile. The following week, Student A came to school and took the AK STAR assessment. During the assessment, Student A started to feel ill. Student A struggled to concentrate on the assessment. After the assessment, Student A's AK STAR results showed achievement at the "Needs Support" level.

This is just an example of what may have caused the differences across student scores on MAP Growth and the AK STAR summative assessment. In Spring 2023, students' RIT scores, percentile ranks, and achievement level scores will be produced by the single administration of the AK STAR summative assessment, and it is reasonable to expect that such score variations, despite already being very rare in spring 2022, happen to an even smaller percentage of test takers.



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