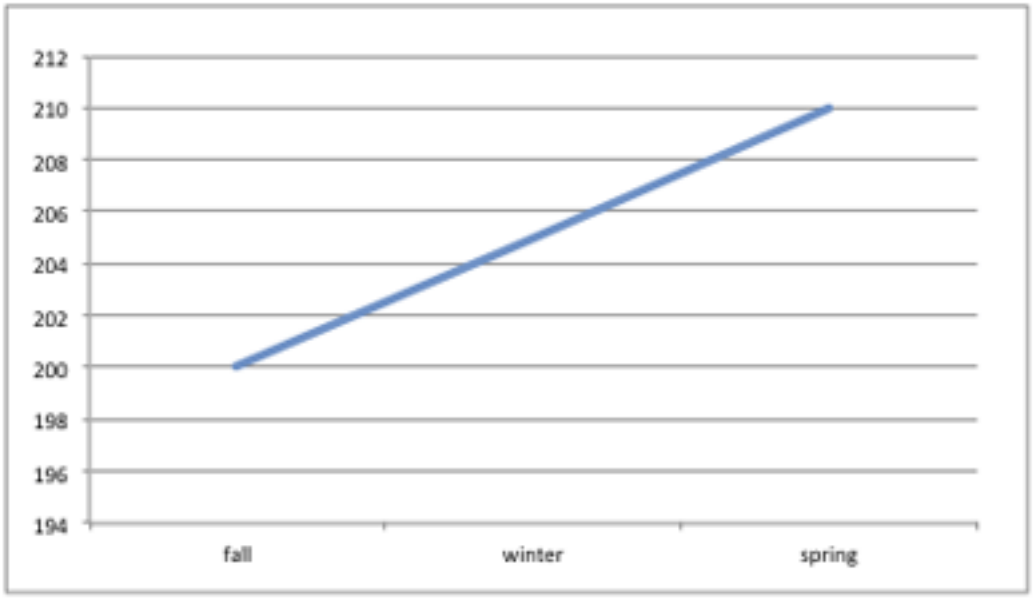
UNDERSTANDING NEGATIVE GROWTH

TYPICAL RESULTS

If we were to plot the fall, winter, and spring RIT scores for all of our students, most results would create a line graph similar to the one presented in *figure 1*. In this example, positive RIT growth is shown between each testing administration.

Figure 1



In these instances, **any movement upward on the RIT scale is considered evidence of student growth and an indicator of effective instruction**.

(NWEA does not consider winter assessments to be an official growth point due to the limited number of instructional weeks, but winter assessments are a useful barometer of student progress and should be viewed in this light.)

NEGATIVE GROWTH

In examining data throughout the year we may come across occasions when students produce seemingly random scores or potentially inaccurate test data. This is most commonly seen in winter due to the

limited number of instructional weeks but can occur in spring as well. If we were to plot the fall, winter, and spring RIT scores for these students, we may see graphs that show significant drops at some point in the year.

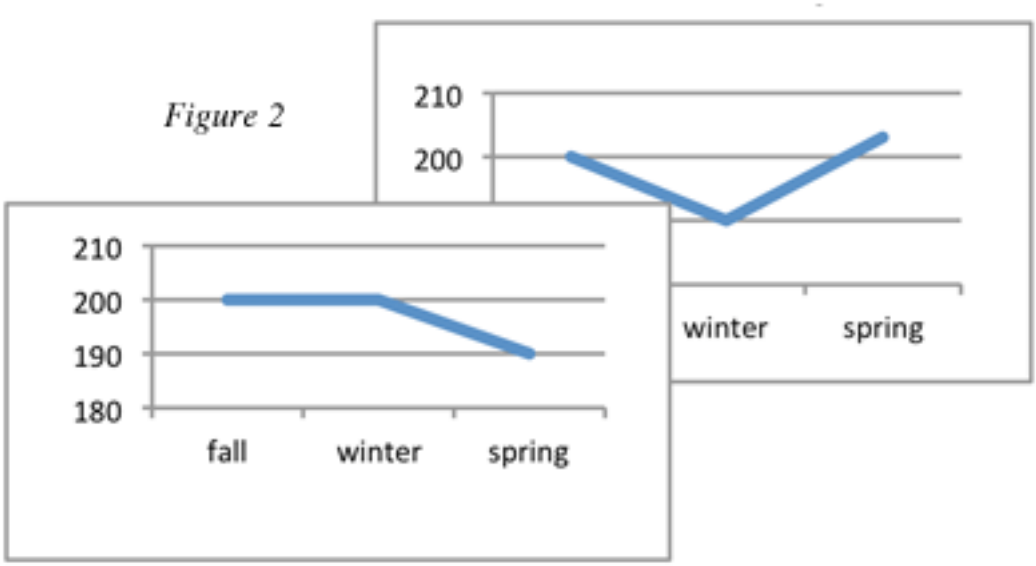


Figure 2

Why Does Negative Growth Occur?

There are actually **two very good reasons why negative growth occurs:** either students have an inaccurate test score which poorly reflects their abilities, or they have not demonstrated enough growth over the course of the school year to out-pace the standard error of measurement--the latter being the more common culprit for negative growth seen after winter testing.

We must remember that each assessment is only a snapshot of a single point in time. Negative growth does not necessarily mean a student is not learning, or that classroom instruction has not been effective, or that NWEA data is not reliable. Rather, negative growth allows for additional opportunities to change the way we discuss our students' learning. Instead of ignoring these instances as anomalies or assigning blame for their results, we should recognize negative growth as an important element in the culture of data driven

instruction. Simply put, for unexplained reasons student scores sometimes fall.

PUTTING STUDENT GROWTH IN CONTEXT

There can be many reasons for a drop in a student's score, but one important factor that must be considered is something known as **standard error of measurement**. This statistical term is used to indicate the error in a reported RIT score, providing a possible range of expected scores for the student generally known as a RIT Range.

Typically, this approximates to about plus or minus three RIT on any given test, so a RIT score of 200 would likely yield a RIT Range of 197-203. Let's look at the considerations of this a bit further.

Spotlight: Standard Error of Measurement and RIT Ranges

Consider a student with the following test data:

Fall RIT Score: 210 +/- 3 RIT Fall RIT Range: 207-213

Winter RIT Score: 203 +/- 3 RIT Winter RIT Range: 200-206

How much negative growth is seen for this student between fall and winter testing?

Is it 1, 7, or 13 RIT? The truth is that the amount of negative growth could be any of these amounts. The RIT Ranges imply that the spread of accurate scores could have fallen from an extreme high of 213 in the fall to an extreme low of 200 in the winter. They also could have minimally fallen from 207 in the fall to 206 in the winter or any combination within the parameters of the RIT Ranges. All that can truly be ascertained is that the score has fallen.