

Transcript – Comparison Summary Reports

Presenter: In this lesson, we will talk about comparing scores within a class over time. After accessing the ESTAR/MSTAR application, the teacher home page will appear. You will see a series of menu options on the left side of the page. These menu options will help you navigate through the ESTAR/MSTAR assessments, including the Universal Screener and the Diagnostic Assessments.

From within the ESTAR/MSTAR Universal Screener section or report, we want to select “Make Decision”. And then we will find “Reports”. You will see these two reports, the “Class Summary Report” and the “Comparison Summary Reports”. In a previous lesson, we discussed how to generate and interpret the “Class Summary Report”. Now we will review how to generate and interpret the “Comparison Summary Report”.

To begin, let's walk through how to create a report. When you first click into the “Comparison Summary Reports”, you will see that there are three menu options here. So first, you can make a “Comparison Over Time”. Second, you can make “Comparisons Across Classes”. And then the last option here is to “Print a Class Pack” and selecting this allows you to print the reports that you will find in these pages for an entire class or for one student.

So to begin, we will talk about the “Comparison Over Time Report”. So what you see on this report is first there is a description of what this report will allow you to do. You can compare individual students, classes, and grades over time from the fall, winter, and spring administrations within the ESTAR/MSTAR Universal Screener. We also see a link here on “How Do I Interpret This Graph?” This provides a link to a PDF of the interpretive guide.

You will also see that there are four selection boxes or drop down menus. First, are the “Assessments”. So if we select that, we notice that we can check any of the three assessments, so the fall, the winter, or the spring. We can also select any one of those combinations. But we will uncheck those for now.

We also notice that the “Classrooms” are available. So in this case, I have available to me two class periods. If I only taught one class period, I would only have one class show up in this drop down menu. If I taught more than two classes, I would have more classes show up in this menu.

Next, we will see “Students”. Currently there is no students in this box because we didn't select a classroom. But you will also still notice that you can “Check All” or you can “Uncheck” any of those. And then you will see that there are four display options as you are creating your chart, “Box and Whisker plot”, an “Average”, an “Average Across Classes”, and “Student Scores”.

Transcript – Generating a Report

Presenter: So now that we've kind of walked through what's available for these reports, let's create a report. So first I'm going to select all of the assessments that are administered. So I'm going to “Check

All". If I only wanted to see the fall to winter, I would either uncheck this spring here or I could just check the fall and the winter. But in this case, I'd like to see all three.

And then I'm going to select the "Classroom". I'd like to look at the first period class, scores in the first period. And then now that we have selected a class, we will notice that all of the students who are enrolled in this class appear here. You will also see that there's the student's name as well as the student's user name. So because I'm interested in the whole class, I will "Check All".

You also notice that we have our four display options. These are all checked. But what we would like to do is first talk about the "Box and Whisker plot".

So I've made my selections. And now I need to apply the filter. So as we see, we still have our four options available for us so that we can make any selection changes that we'd like. We also see that we can export to a PDF.

And now we see our box plot. In previous lessons, we've discussed how to interpret a box plot. But we'll go over that generally here.

You'll see that on the x-axis, we have "ESTAR/MSTAR Assessments" are selected on the x-axis. We have the three assessments that we selected, the fall, the winter, and the spring. And then we also notice that the y-axis is the "Scale Score". And these are the scale score for the students who participated in the ESTAR/MSTAR Universal Screener.

We also see that the "Report Key" is here, which we'll discuss in just a moment. And we'll also see that, again as occurs on all of the reports, the color coding is consistent with the interpretive guide for each of the tiers. One note is that if you hover over the Report Key, you will see that information from the interpretive guide becomes available in a hover over menu. So the information from the interpretive guide is available in several different ways here.

Transcript – Box & Whisker Plot

Presenter: So let's look at the box and whisker plot. Just to refresh your memory, the box and whisker plot indicates the distribution of students' scores across the range of scale scores. So the lower part of the box indicates the lower part of the distribution. And the upper part of the box indicates the upper part of the distribution. The dashed line in the middle indicates the median.

So in this case, if we look at the fall, we will notice that the minimum score is roughly 115. And the maximum score is roughly 320. We will also notice that the median score is roughly 235.

So again, we know that the lower whisker represents-- or the lower bar-- represents the 25th percentile, which means that the lower whisker represents 25% of the students who participated in this assessment. The upper line of the box represents the 75th percentile. So that means 25% of the students fall in the upper whisker. So the remaining 50% are in the box. Between the median and the

75th percentile, we know that there's 25% of the scores. And between the median and the 25th percentile, there's 25% of the scores.

So one thing that we can do is when we're looking at comparing student scores over time is we can make some general observations about the distribution as we look from fall to winter to spring. So there's a few things to note. One is that from fall to winter, the distribution of students' scores increased. So we had students who were scoring lower than they did in the fall as well as students who were scoring higher than they did in the fall.

We will also notice that the median increased. So it went from approximately 235 in the fall to about 250 in the winter. We will also notice a slight increase from the winter to the spring.

So by looking at just the box plots across the fall, winter, and spring administrations, we can make several generalized observations. But one thing that's very important is we want to keep in mind why we look at these generalizations or why we look at these comparisons over time and that is so we can see how students, on average, are responding to the instruction that they're receiving, if students are getting closer to reaching expectations in algebra and algebra readiness or if they're getting farther away.

Transcript – Individual Student

Presenter: So we only selected one of the display options. Let's add in the "Average". And we will click on the "Average" button and then apply the filter. What is important to note is this is the class average. So of all of the students who took the assessment across these administrations, this is the average of their scores.

There's a few things to notice. One is that the color coding of the circle, which indicates the average, aligns with the color coding in the "Report Key", which is consistent with the interpretive guide. So you will notice that the average for the fall is within Tier IB, the average for the winter is within Tier IA, and then the average for the spring is in Tier IB. Also what's helpful to notice is if you hover over the average, you will see the specific value that's reported. So this indicates that it was Fall 2012, what grade this is, and then the average score.

One thing you can also do is; again, make some general observations about the distribution of the scores. What you will notice in fall and winter is that the average and the median are similar values. However, you will notice that in the spring, the average is lower than the median. This gives you some information about how students are performing across the class.

So now we've added in these two reports. Let's add in students' scores. So in this case, we have selected all of the students. And they're all contributing to the information.

But what we'd like to do when we add in a student score is just see how the student's performance compares against the class distribution. So we will add in a student. So we've selected one student.

We're still using our three display options, the "Box and Whisker plot", the "Average", and the "Student Scores". And we will apply the filter.

So what you can see from this box and whisker plot is now we've added in a second line graph. This second line graph is for the one student, Fatima, that we selected. You will notice several things that our report key updated to indicate that the diamond is the student scale score. And also you will notice that the color coding of the diamond does represent the same color coding as the report key, which is consistent with the interpretive guide. Again, the same hover over feature applies where you can see the student's specific scale score for each of the administrations.

So you will notice you can use this information to, again, help you make some generalizations about how this student is responding to instruction. So we see in the fall, the student was in Tier IIA. So this student was identified as having some risk for not meeting our expectations in algebra.

Over the course of instruction from fall to winter, the student moved to Tier IB, indicating that they were on track and getting closer to reaching expectations in algebra. Yet as the material continued to increase in complexity, the student score in the spring fell to Tier IIA. So there's a number of explanatory factors we could look into about what caused this change. However, what's important to note is that we can use this information to make generalizations about how the student responded to instruction over time.

Transcript – Multiple Students

Presenter: So we've added one student into our visual display of the distribution of our scores. In some instances, we may want to add more than one student into our displays. This might be because we have included multiple students in an intervention. Or we've provided specific supports for a student. But we may want to add in additional students to see how those students compare.

So we come back up to our "Report Options". And we go to our "Student Selection". And we're going to select another student. So let's select this student. OK so we've selected three students. And we know that because it tells us here that we've selected three students. And we're going to apply our filter.

So again, we may have identified these three students and wanted to select these three students because they may have been receiving similar instructional interventions or additional supports. Or they may have been in a small group, similar small group. But we can see that from this display, we can identify how these students compare with each other as well as how they progress over time.

So what you'll notice is, again, we have the rollover feature, so we can see which line graph represents each student. And that is consistent, moves from fall to winter to spring.

So again, we may want to select specific groups of students. We can also select all students. And yet, as you will see, that may not be as useful in that there's a lot of information on this chart that may be difficult to interpret. So reducing the number of students that we select is often most helpful.

So again, this information allows us to compare classes over time as well as students' individual performance over time or small groups of students over time. So we will uncheck that and again get to one student.

So we will further discuss how to use the box and whisker plots to make additional instructional decisions to support the Response to Intervention framework within a classroom.