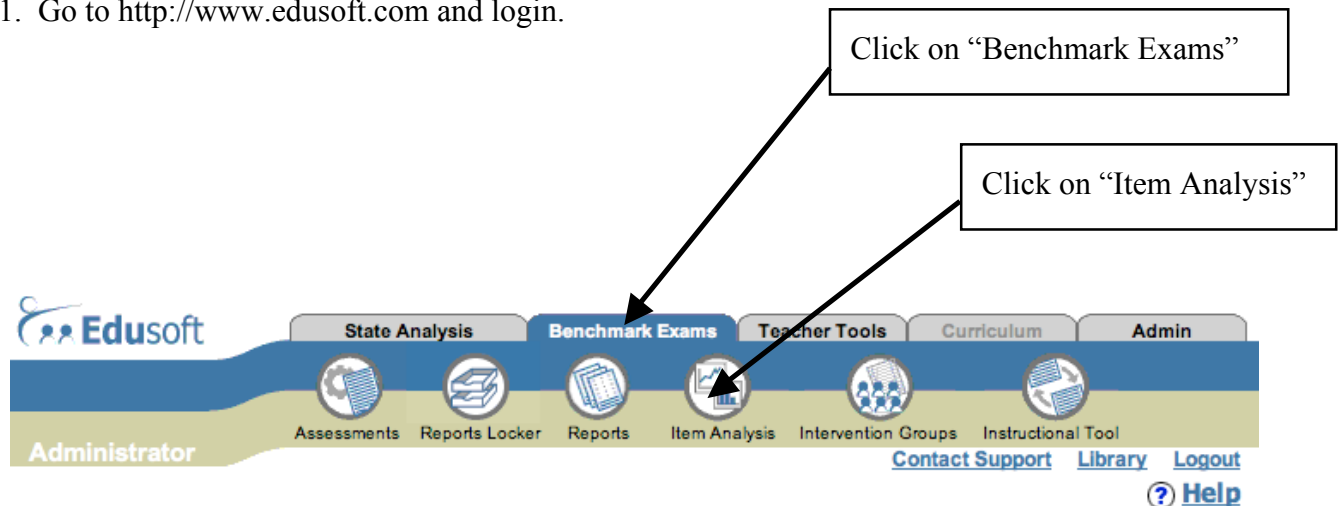


# West Contra Costa Unified School District Mathematics Center Item Analysis User Guide for Benchmark Assessments

1. Go to <http://www.edusoft.com> and login.



[Learn more about new Edusoft features](#)

## West Contra Costa Unified School District - CA



### Assessments

- Align questions on existing benchmark assessment to standards.
- Print answer sheets for tests in the system.



### Reports Locker

- Organize reports that were run on benchmark assessments.
- View and download reports.



### Reports

- Generate and print PDF score reports at the class, school or district level.
- See student performance on standards, customizable question groups, and individual questions.



### Item Analysis

- Analyze benchmark assessment items for difficulty, discrimination, and KR-20 values.
- See list of students based on item responses.



### Intervention Groups


- List students for targeted interventions based upon customizable performance criteria.
- Compare performance on two tests.









### Instructional Tool

- Generate standards-based instructional materials for students based on their performance on tests.
- Instructional materials can include missed exam questions, resource materials, and additional standards-aligned questions.

## 2. Select Item Analysis Report



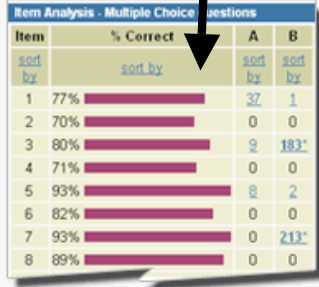
[State Analysis](#)
[Benchmark Exams](#)
[Teacher Tools](#)
[Curriculum](#)
[Admin](#)

**Administrator**
[Contact Support](#)
[Library](#)
[Logout](#)
[Help](#)

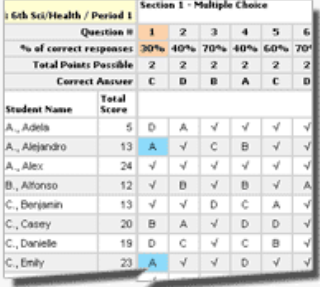
### Item Analysis

**Choose a report:**



**Item Analysis Report**

Item Analysis Reports show you information about the validity of an assessment. They also let you analyze incorrect answers to identify why students struggled with concepts or misunderstood them.



**Item Response Report**

Item Response Reports show you individual students' responses to assessment items as well as the most commonly selected distracters for each class. They also show how each assessment item aligns to specific state standards or question groups.

3. Choose the grade level and benchmark you want to see. Click Continue.

The screenshot shows the Edusoft web application interface. At the top, there is a navigation bar with tabs for State Analysis, Benchmark Exams, Teacher Tools, Curriculum, and Admin. Below this is a sub-navigation bar with icons and labels for Assessments, Reports Locker, Reports, Item Analysis, Intervention Groups, and Instructional Tool. The main header area includes the Edusoft logo, the role 'Administrator', and links for Contact Support, Library, Logout, and Help.

The main content area is titled 'Item Analysis Report'. It contains a section 'Select the assessment you want to report on:' with two panels. The left panel, 'Assessment Folders:', shows a tree view of folders under 'District Assessments', including '00 Grade K 2011-12' through '07 Grade 7 2011-12'. The right panel, 'Assessments in Selected Folder:', shows a list of assessments available for printing and reporting, including 'WCC.Math.G4.Benchmark 1 - Nov. 1-18', 'WCC.RLA.G4.Benchmark 1 - Nov. 1-18', 'WCC.Science.G4.Benchmark 1 - Nov. 10-18', and 'WCC.Writing.G4.Benchmark1 - Nov. 1-18'.

Three black arrows are overlaid on the image: one points from the instruction text to the '04 Grade 4 2011-12' folder in the left panel; another points from the instruction text to the 'WCC.Math.G4.Benchmark 1 - Nov. 1-18' assessment in the right panel; and a third points from the instruction text to the 'Continue' button at the bottom right of the interface.

4. Run the report.

**Edusoft**

State Analysis    Benchmark Exams    Teacher Tools    Curriculum    Admin

Assessments    Reports Locker    Reports    Item Analysis    Intervention Groups    Instructional Tool

Administrator    [Contact Support](#)    [Library](#)    [Logout](#)    [Help](#)

### Item Analysis Report

**Selected exam:** WCC.Math.G4.Benchmark 1 (Nov. 1-18)

**Choose school groups:**

- ☒ All
- ☐ One: (choose...)
- ☐ Multiple: [View school groups](#)    [Select School Groups](#)

**Choose schools:**

- ☒ All
- ☐ One: (choose...)
- ☐ Multiple: [View schools](#)    [Select Schools](#)

**Choose periods:**

- ☒ All
- ☐ Specific: [View periods](#)    [Select Periods](#)

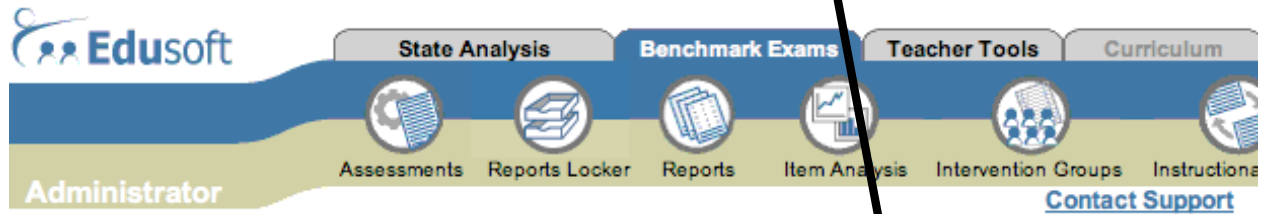
**Select Students Based on:** [Tell me more...](#)

<a href="#">Teachers:</a>	All
<a href="#">Grades:</a>	All
<a href="#">Ethnicities:</a>	All
<a href="#">Ed Programs:</a>	All
<a href="#">Custom Groups:</a>	All
<a href="#">Gender:</a>	All
<a href="#">Course:</a>	All
<a href="#">Test Delivery:</a>	All
<a href="#">Roster:</a>	2011-2012 Semester 1, Quarter 1, School Year

[Clear Options](#)

[Cancel](#)    [Run report now ►](#)    [Schedule report ►](#)    [Save report options ►](#)

- View the Item Analysis report. Change the display to percent.



**Currently Selected Options**

<b>Exam:</b>	WCC.Math.G4.Benchmark 1 (Nov. 1-18)	<b>Roster:</b>	2011-2012 Semester 1, Quarter 1, School Year
<b>School Group:</b>	All	<b>Schools:</b>	All
<b>Grades:</b>	All	<b>Teachers:</b>	All
<b>Ethnicities:</b>	All	<b>Ed Programs:</b>	All
<b>Custom Groups:</b>	All	<b>Genders:</b>	All
<b>Courses:</b>	All	<b>Test Delivery:</b>	All

[Clear Options](#)

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**Periods:** All

The Kuder-Richardson 20 reliability value for this exam with these student selections is .84

[What do these terms mean?](#)

Analyzing 306 students

Group by:


Item Analysis - Multiple Choice questions			Raw Number   Percent   P-Biserial				
Item	% Correct	Discrimination	A	B	C	D	OMITTED
<a href="#">sort by</a>	<a href="#">sort by</a>	<a href="#">sort by</a>	<a href="#">sort by</a>	<a href="#">sort by</a>	<a href="#">sort by</a>	<a href="#">sort by</a>	<a href="#">sort by</a>
Math: Grade 4, Benchmark 1 -> 1	86% <div></div>	0.24	<b>86.3*</b>	4.9	6.5	2.3	0
Math: Grade 4, Benchmark 1 -> 2	91% <div></div>	0.22	<b>90.5*</b>	1.6	6.5	0.3	1
Math: Grade 4, Benchmark 1 -> 3	67% <div></div>	0.37	13.7	10.8	<b>66.7*</b>	7.8	1
Math: Grade 4, Benchmark 1 -> 4	52% <div></div>	0.49	11.8	22.9	<b>51.6*</b>	12.7	1

\*The asterisk and bold font shows the percent for the correct answer.

6. Look for questions with distributions of percents that indicate a pattern of students selecting “incorrect” answers.

For example:

- If some incorrect answer choices are selected more often than others, follow up by looking at the test question and discussing what misunderstanding might have caused students to select these incorrect answer choices.
- What instructional mitigations (i.e., best instructional practices) can teachers use to improve students’ understanding and achievement on this type of question?

Item Analysis - Multiple Choice questions				Raw Number   Percent   P-Biserial			
Item	% Correct	Discrimination	A	B	C	D	OMITTED
Math: Grade 4, Benchmark 1 -> 4	52% 	0.49	<a href="#">11.8</a>	<a href="#">22.9</a>	<a href="#">51.6*</a>	<a href="#">12.7</a>	<a href="#">1</a>

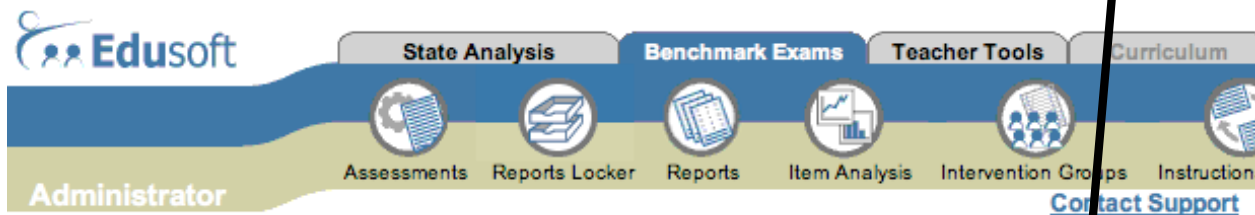
What misunderstanding caused students to select B more often than other incorrect answer choices?

What instructional mitigations can we use to help students improve their understanding and skill, and choose the correct answer?

## Grades K and 1

For Grades K and 1, the reports look different because the assessments are marked as “correct” or “incorrect” (i.e., they are not multiple choice). For these assessments, look for questions that show a larger number of students being marked “incorrect”. Discuss instructional mitigations (best practices) that can help students improve their understanding, skill, and performance.

What misunderstanding may have caused students to be marked incorrect on Question 3?



The navigation bar for the Edusoft Administrator interface. It features the Edusoft logo on the left. The main navigation tabs are State Analysis, Benchmark Exams, Teacher Tools, and Curriculum. Below these are icons for Assessments, Reports Locker, Reports, Item Analysis, Intervention Groups, and Instruction. A 'Contact Support' link is located on the right.

**Currently Selected Options**

<b>Exam:</b>	WCC.Math.G1.Benchmark 1 (Nov. 1-18)	<b>Roster:</b>	2011-2012 Semester 1, Quarter 1, School Year
<b>School Group:</b>	All	<b>Schools:</b>	All
<b>Grades:</b>	All	<b>Teachers:</b>	All
<b>Ethnicities:</b>	All	<b>Ed Programs:</b>	All
<b>Custom Groups:</b>	All	<b>Genders:</b>	All
<b>Courses:</b>	All	<b>Test Delivery:</b>	All

[Clear Options](#)

**Periods:** All

The Kuder-Richardson 20 reliability value cannot be calculated for this test.

[What do these terms mean?](#)

Analyzing 22 students

Group by:  [GO](#)

Item Analysis - Long answer - point scale		Raw Number   Percent	
Item	% Correct	0	1
<a href="#">sort by</a>	<a href="#">sort by</a>	<a href="#">sort by</a>	<a href="#">sort by</a>
Math: Grade 1, Benchmark 1 -> 1	64% <div></div>	16.4	63.6
Math: Grade 1, Benchmark 1 -> 2	59% <div></div>	10.9	59.1
Math: Grade 1, Benchmark 1 -> 3	23% <div></div>	77.3	22.7
Math: Grade 1, Benchmark 1 -> 4	82% <div></div>	18.2	81.8
Math: Grade 1, Benchmark 1 -> 5	73% <div></div>	27.3	72.7
Math: Grade 1, Benchmark 1 -> 6	82% <div></div>	18.2	81.8

## Additional background

These assessments:

- Have been developed by teacher teams within the district as part of long-term professional development.
- Are intended to help grade level teacher teams look at trends in results on specific items, in order to identify areas where students may need “instructional mitigations” or intensified use of best mathematical instructional practices that can transform teachers’ instruction and improve student understanding and achievement.
- Are not intended to be comprehensive.
- Are not intended to be used for grading students.
- Are not intended to be used for any evaluative purpose, but instead are to be used formatively to help teachers transform their instruction.