What the teacher could tell
U14, U15, U22 looked at not passing and could tell students doing really bad
U14 could tell students are doing bad by large number of hints
U14 tried to make hypothesis about why student couldn't pass a skill

What the teacher would do
U14 "go back and teach it again"
U15 "go back and discuss pythagorean theorem, later put it into some area problems"
U20 work on each of these (skills) by going back and assigning more questions. Start with the PSSA packets on internet and worksheet
U22 I guess i would concentrate on these areas (skills)

Sue: users didn’t figure out that these were not the main skills
U22 these don’t add up to 100
U22 not sure what these (skills) are
Sue: what a skill is is unclear

Class Skill Report

Teacher: Mary Marianna
Class: 8-A
School: Masstown Middle School

Reporting Category: Measurement

Assessment Projection for Class:
- Exceeding 25%
- Performance on skill
- Not Passing: 95%

<table>
<thead>
<tr>
<th>Skill Name</th>
<th>Standards</th>
<th>Performance on skill</th>
<th>Students Using Hints</th>
<th>Expected Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula: Area</td>
<td>8.M.2</td>
<td>20 ± 5%</td>
<td>4</td>
<td>Not Pass</td>
</tr>
<tr>
<td>Formula: Surface Area</td>
<td>8.M.3</td>
<td>52 ± 0%</td>
<td>3</td>
<td>Not Pass</td>
</tr>
<tr>
<td>Formula: Volume</td>
<td>8.M.3</td>
<td>45 ± 1%</td>
<td>8</td>
<td>Not Pass</td>
</tr>
<tr>
<td>Pythagoras’s Theorem</td>
<td>8.M.3</td>
<td>8 ± 3%</td>
<td>9</td>
<td>Not Pass</td>
</tr>
</tbody>
</table>
| Related skills in other categories:
  Picture/Graph Comprehension| 8.M.1     | 80 ± 2%              | 4                    | Pass                 |
  Operations with Fractions  | 8.M.2     | 90 ± 0%              | 4                    | Pass                 |
  Translation (Real World to Symbolic)| 8.M.2 | 95 ± 2%              | 5                    | Pass                 |
  Translation (Visualization to Formula)| 8.M.3 | 74 ± 2%              | 4                    | Pass                 |

Matt: on later protototypes users really liked that standards were written out
U22 what does performance mean? also, is this 20% passing, or 20% failing (U14)?
don’t know this means exactly U14, U15
U14 summary score and table doesn’t match
U16 were they introduced to these?
U14 passing but with lots of hints so need to address it again
U14 I like this because it tells me what standards will be addressed on exams. This would be useful to teacher. Gives us a good idea of what's covered. We mapped the NCTM standards to PSSA standards like this. Useful to know which standards we already covered and which we didn't. We prioritized what standards to teach and choose lesson topics based on the standards. Then added additional stuff kids would need.

U16: I like the skill table better than standards because its broken down more

U15, U20, U22: what does performance mean?
U16: Is the number doing well or poorly?

U20: need the description written out

U15: doesn't tell me who is passing or not

Sue: general confusion between skills and standards

U22: are these the other standards for English?

U20: what is this? oh i get it, it might be useful if i had time to piece it together

U22, U15: this is confusing.

U12: this would be useful to parents

U20: doesn't draw me to what needs to be worked on first

U15: doesn't tell me who is passing or not

U14, U15, U20: what does performance mean?

U20: need the description written out

U22: are these the other standards for English?
U14 I would give class the most missed question and ask them "why did you miss this, I don’t understand" and invariably the kid that misses it would explain how to do the problem, and other kids get worried and say "that's not right" I would do practical application problems (easy to get for me as a VoTech teacher) U20 would take the most missed problems and give it to students again

design idea: could allow teachers to specify if students should have mastered this skill
U14, U20: thought that mastery meant: "kids should master this skill." U15: this must be what is expected? but how do they know I’ve covered it? Students couldn’t have mastered it if its read

U15: this has a lot of stuff all over the place
U15, Is this the # problems students saw?
U15, What does color mean?
U14, U20 The terms here almost match the PSSA reporting terms which is nice, e.g. basic, below basic

U16 most of the students have mastered the (black) concepts

U14, U20: want descriptions
U22: is this the date the mastered it by?
U15 at beginning of year would use to plan topics, in middle of year decide which to go back to.

U22: "are [probs on next page] sample problems?" didn’t understand what "operation," label mean

U22: don’t understand this
U14 like most missed questions. U20 Like having the questions right there, like the most missed, least missed

---

### Class Progress Report by MCAS Reporting Category

<table>
<thead>
<tr>
<th>Pattern, Relations, and Algebra</th>
<th>U1 Urgency</th>
<th>U1 Skill</th>
<th>Expected Level of Understanding</th>
<th># of Problems Encountered</th>
</tr>
</thead>
<tbody>
<tr>
<td>U2 Dependence Inequality</td>
<td>1632</td>
<td>Mastery</td>
<td>Dec 31</td>
<td>9</td>
</tr>
<tr>
<td>U3 Division (Symbol to English)</td>
<td>2032</td>
<td>Mastery</td>
<td>Feb 22</td>
<td>7 + 3</td>
</tr>
<tr>
<td>U4 Linear Equation</td>
<td>2031</td>
<td>Familiarity</td>
<td>Nov 12</td>
<td>5 + 1</td>
</tr>
<tr>
<td>U5 Translation (Visualization)</td>
<td>2232</td>
<td>Familiarity</td>
<td>Dec 22</td>
<td>7 + 2</td>
</tr>
<tr>
<td>U6 Translation (Visualization)</td>
<td>2232</td>
<td>Mastery</td>
<td>Feb 22</td>
<td>8</td>
</tr>
<tr>
<td>U7 Translation (Variables)</td>
<td>2530</td>
<td>Mastery</td>
<td>Nov 12</td>
<td>6 + 2</td>
</tr>
<tr>
<td>U8 Linear Equation</td>
<td>2832</td>
<td>Familiarity</td>
<td>Jan 12</td>
<td>12 + 2</td>
</tr>
<tr>
<td>U9 Linear Equation</td>
<td>3032</td>
<td>Familiarity</td>
<td>Jan 12</td>
<td>7 + 3</td>
</tr>
<tr>
<td>U10 Linear Equation</td>
<td>5/30p</td>
<td>Not yet encountered</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>U11 Linear Equation</td>
<td>2922</td>
<td>Mastery</td>
<td>Feb 22</td>
<td>7 + 3</td>
</tr>
<tr>
<td>U12 Linear Equation</td>
<td>3222</td>
<td>Mastery</td>
<td>Dec 31</td>
<td>8 + 2</td>
</tr>
</tbody>
</table>

### Number Sense and Operations

<table>
<thead>
<tr>
<th>Pattern, Relations, and Algebra</th>
<th>U1 Urgency</th>
<th>U1 Skill</th>
<th>Expected Level of Understanding</th>
<th># of Problems Encountered</th>
</tr>
</thead>
<tbody>
<tr>
<td>U2 Dependence Inequality</td>
<td>1632</td>
<td>Mastery</td>
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</tr>
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<td>U3 Division (Symbol to English)</td>
<td>2032</td>
<td>Mastery</td>
<td>Feb 22</td>
<td>7 + 3</td>
</tr>
<tr>
<td>U4 Linear Equation</td>
<td>2031</td>
<td>Familiarity</td>
<td>Nov 12</td>
<td>5 + 1</td>
</tr>
</tbody>
</table>

---

### Operation: Includes Variable (Patterns, Relations, and Algebra)

**Student Mastery:** 29/32  
**Expectation:** Mastered by Dec 17, 2032  
Below is a list of test items that include the skill

<table>
<thead>
<tr>
<th>Test Item</th>
<th>Student Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>23/30 (77%)</td>
</tr>
<tr>
<td>7</td>
<td>23/30 (77%)</td>
</tr>
<tr>
<td>11</td>
<td>23/30 (77%)</td>
</tr>
<tr>
<td>14</td>
<td>23/30 (77%)</td>
</tr>
<tr>
<td>17</td>
<td>23/30 (77%)</td>
</tr>
<tr>
<td>18</td>
<td>23/30 (77%)</td>
</tr>
<tr>
<td>20</td>
<td>23/30 (77%)</td>
</tr>
<tr>
<td>29</td>
<td>30/32 (93%)</td>
</tr>
</tbody>
</table>

---

### Operation: Includes Variable

What is the y-intercept of the graph represented by the equation below?

\[ y = \frac{4}{5} x + 2 \]

U15 like the color coding

---

### Operation: Includes Variable

If \( y = 4 \) is an integer, which of the following could be the value of \( y \)?

- A. -2
- B. -1
- C. 0
- D. 2

---

### Operation: Includes Variable

Which steps could be used to solve this equation?

U14 like most missed questions.
Prototype 4

Initial response:

This is a very practical report. Like this the best. This tells you which still needs to be reviewed. This is what I do, (e.g. 20 of the class missed #5) - U14

This says everything clear. Because tells me the big question: "what should I address next" and this does the job for me. Like it because don't have to figure out stuff or go find references (U15)

This does not give me %, rank, or where they are out (U15)

**note: the reason preferred might be more related to how the information is presented, not the information. (explanatory headers..)

What they would do in response: I wouldn't address questions, but address topic, and give applied problems. e.g. How much do you spend on cigarettes, or taxes. Then I would go back to test and go through. (U14)

A Summary is what I want. (U20)

I wouldn't address questions. I would address topic. (U14)

Don't understand what this means. Not useful. (U14,15,20)

Need to know degree of failure. 'Fail' is ambiguous. Are they close or very off? (U15)

Standards give good definition (U15, 20)

Want to know where in the standard the kids are stuck, but in a simple way that spells it out (U15)

What is this???? (U20)

Like color coding but incomprehensible (U20)

I wouldn't be worried about individual skill. Just want % of students that failed the question. (U14)

I like that I can see the problem given to students. Need information on whether this is the one they've been introduced to, whether we've covered it.. (U16)

These are great because this breaks down where the students are having trouble in the question. (U20)

Helpful but seeing the actual problem helps better(U20)

On the next page: want a note about what the problem is about and where the students are having trouble with. (U20)
U14 this seems to be telling me the problem, what steps they should follow, what they get suck on and what to practice.
U14 Sometimes I assume the kids know all the steps, I would use this to remind me what all the steps are. This breaks it down and this is what the kids need to do.
U15 visual is good rather than a bunch of #s
U15 I really like how it shows each skill
U15 this definitely tells me what skills are working and what aren’t
U20 I like the setup, if anyone breaks it down into how students should solve it I do want to know the route; would be good to have one of these for each section
(then I would assign a worksheet on the skill)

U15, U20 would be nice to see (percentages) for each skill