

Launch of a Task Survey



Thanks for your interest in the Launch of a Task survey!

In this document, you'll find an annotated version of the launch survey, which includes the research informing the survey and information for use of the survey.

Please note that we are in the process of refining these surveys. It is important to us that we learn from those who are using them. We are currently operating under a Creative Commons license. As such, we ask that you track and share any revisions you make to the surveys.

If you'd like to read more about the survey, find the most recent version of this survey, or download other tools for instructional improvement, visit <http://pmr2.org>

A word of caution: This tool is intended to support inquiry about teaching and to inform instructional improvement efforts. It is not appropriate to use this tool to evaluate teachers' instruction.

Thank you!
The PMR2 Team



Directions: Think about what has happened in today's class up until now as you answer the questions below. For each question, select one response that best describes your experience.

1) Can you picture what is happening in the math problem(s)?

- Yes No

2) Do you understand what you're supposed to figure out?

- Yes No

3) Are you ready to get started?

- Yes No

4) List any words in the math problem(s) that you do not understand.

5) Are you curious about the math problem(s)?

- Yes No

Annotated Launch Survey

Intended Use:

This survey is intended to be paired with a cognitively-demanding task which has a problem-solving scenario (i.e., a student has to analyze the problem in order to figure out how to solve it). The task might ask students to identify patterns, form and justify generalizations, make conjectures and support them with mathematical evidence, or draw connections between representations, strategies, or mathematical concepts and procedures.

It is important to administer this survey right after the task has been launched, prior to students solving the task. The results from this survey can be analyzed (a) immediately after the introduction, or launch, of a task (i.e., right before students start to solve the task) so that teachers can determine which students might need additional support to get started; and/or (b) after the lesson, to reflect on how the introduction supported a range of students to get started on solving the task, and to therefore set improvement goals for a subsequent lesson.

As an example of the utility of analyzing results immediately after the launch, in one classroom, a teacher found that 4 out of 20 students in a class responded NO on items 1-3. The teacher then worked with each of these students individually at the beginning of the independent work time, and one of the students solved the problem using a unique strategy that he later shared with the class.

Aspects of the launch of a task that research indicates make a difference for students' learning opportunities <i>Items are assessing students' perceptions of ...</i>	Survey items	Sample adjustments & conversation starters
<p>Whether students have an "image" of what's happening in a problem.</p> <p>It is important that students can visualize what's happening mathematically in the problem-solving scenario (Jackson et al., 2013; Thompson, 1996). This requires ensuring that students understand key features of the context of the problem, which often may be familiar to some (if not all) students. It also requires ensuring that students have an "image" of what's happening, mathematically, in the problem (e.g., how quantities are accumulating, how one quantity changes in relation to another). Moreover, Jackson et al. found it was crucial that students have opportunities to describe key contextual features and key mathematical ideas and relationships in their own words.</p> <p>At the end of the launch, students should have a sense of</p>	<p>Item 1 Can you picture what is happening in the math problem(s)?</p> <p style="text-align: center;"> <input type="radio"/> Yes <input type="radio"/> No </p> <p>Item 2 Do you understand what you're supposed to figure out?</p> <p style="text-align: center;"> <input type="radio"/> Yes <input type="radio"/> No </p>	<p>Anticipating and addressing unfamiliar aspects of the problem context</p> <ul style="list-style-type: none"> What may be unfamiliar about this context? Therefore, what might we do to support these students to understand key features of the problem context? (e.g., discuss images, connect to students' experiences, ask students to retell the situation, act out parts of the scenario) What can we do to support students to describe key aspects of the context in their own words? <p>Supporting students to picture what's happening mathematically in the problem</p>



<p>what they are trying to figure out. Importantly, they do not need to know how to solve the task.</p>		<p>situation</p> <ul style="list-style-type: none"> • What are the key mathematical relationships in this problem? What might we do to support students to identify the key mathematical ideas and relationships in the task? (e.g., ask students to explain the meaning of specific numbers, ask students to describe what is happening in the situation) • What can we do to support students to describe key mathematical relationships in their own words? • What might we do to support students to make sense of the mathematical question they are working to solve? (see ideas above)
<p>Whether students feel ready to tackle the problem If students have been supported to make sense of the problem situation, at the end of the launch, students should feel ready to get started on the task at hand. This does not mean that they necessarily have a strategy to use to solve the problem. Rather, being ready to get started means they understand the situation well enough to start to reason mathematically about how they might <i>approach</i> solving the problem.</p>	<p>Item 3 Are you ready to get started?</p> <p><input type="radio"/> Yes <input type="radio"/> No</p>	<p>Note: This item is useful in identifying students who need additional support to get started on solving the task. Use students' responses to Items 1, 2, and 4 to investigate why the student(s) did not feel ready to get started.</p>



<p>Whether there is language in the task that students find unfamiliar or confusing</p> <p>A crucial aspect of launching a task is ensuring that common language is developed to describe contextual features, mathematical ideas and relationships, and any other vocabulary central to the problem that might be unfamiliar or confusing for students (Jackson, et al., 2013; Khisty & Chval, 2002; Moschkovich, 1999).</p>	<p>Item 4</p> <p>List any words in the math problem(s) that you do not understand.</p>	<p>Anticipating and addressing unfamiliar language</p> <ul style="list-style-type: none"> • What might we do to support students to develop common language to describe the aspects of the task that are unfamiliar or confusing? • How can we check that students understand key terms?
<p>Whether the task is of interest to students</p> <p>Another key aspect of launching a task involves piquing students' interest and curiosity in solving the problem at hand. Research indicates the importance of connecting the task to students' interests and lived experiences; and of inviting students to share their experiences during the lesson, including during the launch (Civil, 2007; Yeh et al., 2017).</p> <p><i>Note: in our cycles of development, we found that students responded "not curious" for two reasons: 1) they expressed a lack of connection between the problem context and their interests or lived experiences or 2) they expressed they were not curious about the mathematics they might use to solve the problem.</i></p>	<p>Item 5</p> <p>Are you curious about the math problem(s)?</p> <p><input type="radio"/> Yes <input type="radio"/> No</p>	<ul style="list-style-type: none"> • How might we make minor modifications to the task itself to reflect students' interests, experiences, and/or identities? • What can we do when launching the task to pique students' curiosity? • How can we invite students to share their interests and/or connections they are making to the task?

References

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