Stronger and Clearer Each Time

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This routine is adapted from Stanford's UL/SCALE [Mathematical Language Routines.](#)

Purpose of the routine

To provide a structured and interactive opportunity for students to revise and refine both their ideas and their verbal and written output (Zwiers, 2014). This routine also provides a purpose for student conversation through the use of a discussion-worthy and iteration-worthy prompt. The main idea is to have students think and write individually about a question, use a structured pairing strategy to have multiple opportunities to refine and clarify their response through conversation, and then finally revise their original written response. Subsequent conversations and second drafts should naturally show evidence of incorporating or addressing new ideas and language. They should also show evidence of refinement in precision, communication, expression, examples, and reasoning about mathematical concepts.

Prepare for the Routine

Select and Reflect on the Prompt

Stronger and Clearer Each Time begins by providing a thought-provoking question or prompt. The prompt should guide students to think about a concept or big idea connected to the content goal of the lesson and should be answerable in a format that is connected with the activity's primary disciplinary language function. Determine the big ideas of your lesson and select a prompt that will allow students to reflect on and discuss those big ideas.

Preview and reflect on the mathematical thinking involved in the conversation you want students to have. Identify the language, both mathematical and specific to the context of expressing the mathematical understandings being discussed, that may be challenging for multilingual learners, and prioritize those that are critical to learners expressing the concepts or big ideas at play in the prompt.

Prepare language supports

After identifying the language demands of the prompt, pre-plan/pre-create images, gestures, etc. to use when introducing the prompt. This will cut down on the time needed to explain the prompt. Select up to three key terms that need a direct explanation or check and briefly define each with a picture or representation. Identify sentence starters and a word bank to support students in communicating during the structured pair conversations.

Launch the Routine

Introduce the Routine

Articulate the purpose and flow of the routine to students, including introducing the question or prompt for discussion. The first time you introduce the routine, think about how you will refer to different pieces of the routine ("response – first draft" or "structured pair meetings") and be consistent with these naming conventions. Prepare a chart or slides to guide students through the steps and use the same visuals each time you do the routine.

Response – First Draft

The first draft of a response is a student's opportunity to write or draw their initial thoughts in response to the prompt.

Individual Think Time

Students draft an initial response to the prompt by writing or drawing their initial thoughts in a first draft. Responses should attempt to align with the activity's primary language function. It is not necessary that students finish this draft before moving to the structured pair meetings step. However, students should be encouraged to write or draw something before meeting with a partner. This encouragement can come over time as class culture is developed, strategies and supports for getting started are shared, and students become more comfortable with the low stakes of this routine. (2–3 min)

Structured Pair Meetings

Use a structured pair strategy to facilitate students having 2-3 meetings with different partners.

Pair Meetings (2-3 times)

Each meeting gives each partner an opportunity to be the speaker and an opportunity to be the listener. As the speaker, each student shares their ideas (without looking at their first draft, when possible). As a listener, each student should (a) ask questions for clarity and reasoning, (b) press for details and examples, and (c) give feedback that is relevant for the language goal. (1–2 min each meeting)

Support students in finding pairs for their pair meetings, and in keeping time for pair conversations, letting students know when to rotate and reminding them of expectations for these conversations. Circulate to listen in to students, providing support in giving feedback and sharing ideas where necessary. Consider strategically pairing students with different levels of proficiency in English.

Following the conversation, prompt students to jot down 1-2 new ideas they got from their partner.

Response – Second Draft

Finally, after meeting with 2–3 different partners, students write a second draft. This draft should naturally reflect borrowed ideas from partners, as well as refinement of initial ideas through repeated communication with partners.

Revision of Thinking

Give students time to independently draft a second response – without referring directly to their first draft. This second draft will be stronger (with more or better evidence of mathematical content understanding) and clearer (more precision, organization, and features of disciplinary language function).

After students are finished, their first and second drafts can be compared. Encourage students to reflect on differences between the two drafts.

Full Group Share

The whole group share can be used to confirm understanding of the big idea, share reflections on what changed in student thinking, or reflect on the process overall.

Variations

Translating the routine to a synchronous virtual setting

Consider how to set up breakout rooms as expectations that support pair meetings.

Translating the routine to an asynchronous setting

Identify the most critical aspects of the routine for your students, and set up opportunities for them to view and comment on each other's thinking, using video (e.g. Flipgrid) or written comments (e.g. Google Docs).

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