[©] 3-2-1 BRIDGE

Thinking about the key concept or topic, identify:

INITIAL RESPONSE 3 Words 2 Questions 1 Metaphor/Simile NEW RESPONSE 3 Words 2 Questions 1 Metaphor/Simile

BRIDGE Identify how your new responses connect to or shifted from your initial response.

Teachers often begin the exploration of a new topic by trying to uncover students' prior knowledge of that topic. This routine came out of our interest in doing just that, but in a way that might push beyond revealing just the facts students might know. Instead, this routine focuses on the associations one has around the topic in terms of words, questions, and connections. The "bridging" part of the routine was designed to help students link their prior knowledge, questions, and understandings with the new ideas they develop as the unit progresses. This process helps them to understand themselves as learners.

Purpose

The first part of the 3-2-1 Bridge routine is all about activating prior knowledge before a learning experience begins. By starting with three words, the routine is very accessible in activating some basic ideas. The two questions push a bit further. Finally, the one metaphor or simile is a test of how one is understanding and framing a topic or issue.

After students' initial thoughts are generated, these ideas are set aside and not discussed. Instead, teachers begin the learning of the unit. The initial experience can be brief, a short reading or video, or it can more extended, a whole week of lab activity or other inquiry. After this initial period of learning, which should advance students' thinking on the topic and move it in new directions, students return and produce a second 3-2-1. At this stage, the key thinking done by learners is distilling their new ideas while assessing their current thoughts and understandings about the topic.

The purpose of the final part of this routine, the Bridge, is to help learners recognize and name their own learning and development. This helps to develop students' metacognitive ability, that is, the ability to step back and examine their own thoughts and learning. In the Bridge, students look at their initial responses (sometimes with a partner) and reflect on how those first impressions differ from their current take on things.

Selecting Appropriate Content

This routine works well when the topic or concept is one where all learners have some prior knowledge. There are many units in school that fit this requirement: planets, habitats, jazz, algebra, conservation, maps, erosion, fairy tales, and so on. If a topic is one that some students wouldn't recognize or know anything about it, it wouldn't be a good choice.

The selection of the instruction after the initial 3-2-1 is crucial in ensuring the effectiveness of the routine. Think about how your instruction will take students' thinking in a new and different direction that will extend it. If the routine were attempted on "fractions," this might not be effective if the instructional period is just a review of past knowledge and skills. Such instruction wouldn't change students' thinking about the topic of fractions. So, if the bridging instruction does not introduce any new ideas, it will have very little effect. It is instruction that is provocative, introduces new information, presents different perspectives, and challenges the learners' thinking that will serve to broaden and deepen understanding.

Steps

1. Set up. Decide how you will have students record their response. Since students will need to come back to their initial 3-2-1 after what might be an extended period of time, you want to make sure they won't lose their responses. Students might record their responses in a journal or on sheets you collect. Present the topic or concept to the learners in as simple and straightforward language as possible.

2. Ask for three words. Ask students to generate three words that quickly come to mind when they think of this topic. Encourage students not to overthink this; it isn't a test. You are just interested in some quick associations they are making with the topic.

3. Ask for two questions. Ask students to generate two questions that quickly come to mind regarding the topic. Again, remind them that these are questions that are pretty close to the surface for them and that don't need a lot of deep thought. Remind them that you are interested in merely uncovering their initial, surface ideas at this point.

4. Ask for one metaphor or simile. Ask the students to create a metaphor or simile for this topic. You may need to explain what a simile or metaphor is and use that language. For instance, "Planets are . . ." or "Planets are like . . ." You may need to provide a simple metaphor example as well. Remind students that metaphors and similes are nothing more than connections one is making, comparing one thing to another because they have important features in common.

5. *Provide an instructional period.* This may be a video, text, image, story, or experiment that conveys new information. There is no time limit on this instructional period. The main criterion is that it needs to be of sufficient substance to move students' thinking beyond their initial understandings.

6. Perform the second 3-2-1. Repeat steps 2-4 above. This time ask students to select words, questions, and metaphors prompted or encouraged by the instruction.

7. Share the thinking: Bridging. Invite learners to share with partners both their initial and new responses to the 3-2-1. In sharing, the partners should discuss what they are noticing about how their thinking on the topic shifted from the initial responses. Reiterate that their initial thinking is neither right nor wrong; it is simply a starting point. As a class or whole group, identify some of the new thinking and changes in thinking that have taken place. Try to capture these major shifts or changes. In some situations a more elaborate discussion of the metaphors might be worthwhile.

Uses and Variations

Bialik College teacher Tony Cavell incorporates 3-2-1 Bridge as a regular part of his sixth graders' book study. Beginning with just the book's title, Tony has students complete their first 3-2-1. Often students' initial questions are very general and are expressed as wonderings: "I'm wondering if it will be a mystery?" Their metaphors tend to be more basic connections and comparisons than true metaphors. For instance, "I think this book is going to be similar to..." Then, using each new chapter as the instructional period, students complete a 3-2-1 for each chapter. Students discuss the new connections they are making with the information in each new chapter and how they are currently understanding the novel.

Janis Kinda, a Jewish studies teacher at Bialik, was challenged in her teaching of the same religious festivals each year. She felt her students switched off and thought "Here we go again." Janis found the 3-2-1 Bridge routine provided a form of pretest by surfacing students' current understandings of the festivals and informed Janis of any previous teaching. She then searched for content that not only provided new information but

also was challenging and engaging, something that would take students' thinking in new directions. Using 3–2–1 Bridge in this way forced Janis to think about finding the new in her topics. Janis found that in doing so, she awakened renewed interest and curiosity in her students. As a result, there were marked changes in the thinking demonstrated in the thoughts, questions, and metaphors produced in the second round of the routine and discussed in the bridging. Janis also found students' metaphors gave her insights into whether they understood the heart and significance of a particular festival as apart from its traditions of celebration.

Assessment

Introducing the first 3–2–1 at the beginning of a topic provides an effective, minipreassessment. It provides an indication of where the learners' thinking is regarding the topic. Effective instruction should then build on this knowledge rather than repeat it. A secondary teacher in charge of a "Career Studies" module at his school decided to use the routine for the first time with his students. To his surprise he found that students' questions and metaphors were quite rich and advanced to begin with and that what he had planned for the module was likely to cover no new ground. Subsequently, he made the decision to rethink how he had organized the content of the course.

One caveat here about using 3-2-1 as a preasessment. Since the initial responses are meant to be quick, capturing what is close to the surface in students' minds, it would be unwise to read too much into weak or superficial responses, particularly in relation to the words and questions. A metaphor takes a bit more time and thought to develop, and therefore these often do reveal a layer of understanding or misunderstanding. For instance, Allison Fritscher at the International School of Brussels noticed her fifth graders initial metaphors on the digestive system were all linear in nature—a path, a road, a river, and so on. She noticed this when it happened initially and then attended closely to the shifts students made after three weeks of instruction. By that time the metaphors had become: like a watch, like a factory, like a vacation. These new metaphors were much more interactive and system-like in nature. The process of repeating the 3-2-1 steps after periods of new instruction enables teachers to see how readily learners are synthesizing and integrating new information into their thinking on the topic.

The routine can also elicit greater curiosity when used toward the end of a unit, when learners feel they have a good grasp of the topic and through the instruction can see that every topic can have new and surprising dimensions. In looking at students' new questions generated in the second or third iteration, look to see if the questions are