

Teaching Strategies: Graphic Organizers
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Recently my students were given the task of creating offset outlines around a complicated graphic in Illustrator, a vector based computer drawing software. The students were aware of how Bezier points are used to define curved and straight lines and how handles are used to alter curves. This situation required skillful control of the handles and a reduction of the number of Bezier points to a minimum to ensure a smooth cut when the design work was produced on a vinyl printer/cutter.

After letting the students try the task on their own, I realized that some students were becoming frustrated because they were trying to “finesse” the handles, keeping them as close as possible to the anchor point. Other students were seeking solutions that included adding points to the line to approximate curves. Both strategies had in common that the students were trying to keep their activities close and tight to the lines they were adjusting. I gathered the group back together and explained the process using the metaphor of trying to move a garden hose around. “If you are standing at a point and want the hose to move away from a tree, you have to make swing it hard and wide to get it where you want it to go.” I explained and demonstrated how the gesture could seem disproportionately large and somewhat unwieldy. If you missed the first time, you would try again – not from a different point but the same one, at least at first. The lesson included a little comedy and physicality – two things that relaxed the students. Still, the metaphor was sound, and it allowed slipping in the extra information that making too many points where the hose changed direction could lead to kinks.

While the metaphor relied on the similarity of the hose to the line and the person moving the hose to the point, I suspect that the real strength of it was more about how one approaches a challenging or frustrating situation. The students really felt the similarity because they could relate to the frustration of moving garden hoses.

Although the use of this metaphor was not pre-planned, it is consistent with the steps for creating metaphor discussed by Dean, Hubbell, Pitler and Stone (2012). In this case, the students were already aware of the elements with which they were working. They had the key vocabulary about points, lines, curves and handles. They also had the practical knowledge of the outcome they were seeking, as they have worked with both the cutting equipment and the vinyl material extensively. The metaphor replaced the words for “specific things with more general things” (Dean, et al., p.127). It also opened opportunities for extension of the pattern; once students could see the line as a pesky garden hose, it was no longer a daunting object and the control handles became more tool and less foe.

While this example was largely teacher directed, we as a class, have an environment in which metaphor is a regular means of communication. Often metaphor is used to name elements in artwork that would require tedious language to explain, allowing the conversation to more rapidly get to the issue regarding the element. Process, too, is discussed metaphorically. According to Dean et al., metaphoric teaching requires that students be taught about metaphors. As my students are in eleventh and twelfth grade, they have received this instruction. What extends the practice of the strategy in my classroom is that there is an ongoing modeling of and welcoming of the strategy which helps build it into the classroom culture.

Reference:

Dean, C. B., Hubbell, E. R., Pitler, H., & Stone, B. (2012). *Classroom instruction that works*. (2nd ed.). Denver: ASCD.