Use of Affinity Diagrams as Instructional Tools in Inclusive Classrooms

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The principles of Total Quality Management (TQM) have been increasingly detailed in the literature in recent years (Quong & Walker, 1996). This approach, though usually associated with business restructuring, has been adopted by many school systems as an effective educational intervention (Schmidt, 1998). Some of the characteristics that have been associated with the use of TQM in the classroom are the same characteristics indicative of effective special education delivery, including student-centered planning, student empowerment, short-term goals and achievements, and learning how to work cooperatively in a group or independently. As a result, the use of TQM in general education classes serving diverse learners and inclusive settings, has great promise.

Blunt (1993) described the effects of using quality tools in general education classrooms and drew a parallel with what is expected in special education classrooms in two areas:

- TQM tools focus on the student’s needs and not on specific teacher outcomes;
- TQM tools focus on small improvements in student processes rather than on large-scale change.

Both of these characteristics reflect the core of special education practices (i.e., individualization, continuous monitoring of progress). With teacher accountability at the forefront of educational planning and instructional delivery, the focus on student needs and outcomes also represents a strong incentive for using TQM tools in inclusive general education classrooms in which diverse learners are educated.

The need for changes in instruction and approaches to managing, learning, and teaching in inclusive settings is widespread (Glasser, 1990; Holt, 1993a, 1993b; Leigh, 1994; Ysseldyke, Algozzine, & Thurlow, 2000). Collectively, issues related to improving student outcomes and empowerment evolve again and again when looking at shifting educational delivery methods for diverse students in general education classrooms.

In this regard, TQM has been the answer in some educational settings. For example, Schmidt (1998) assessed four principles of using TQM (i.e., customer satisfaction, continuous improvement, empowerment, and teamwork) in the classroom at secondary and postsecondary levels. He illustrated how each principle was successfully implemented into each classroom with examples at both levels. Most important, in each case, individualized student improvement in outcomes and empowerment were evolving factors that supported the use of these tools in meeting the needs of diverse learners educated in general education settings.

Literature suggests that TQM tools have been used successfully as organizational tools and classroom management strategies for quite some time (McClanahan & Wicks, 1993). In most cases, the tools have been a way for teachers to organize and facilitate classroom management procedures, long-term projects, and individual assignments. In inclusive settings, they also have proven useful in assessing, analyzing, and providing behavior management guidelines. In these classrooms, strategies are also needed to promote the academic and social successes of diverse learners. Unfortunately, one strategy usually will not meet the needs of every student, but the affinity diagram is a powerful tool for addressing many problems.

The Affinity Diagram

The affinity diagram is a tool for gathering information and organizing it into natural groupings. Think of a board with note cards containing the names of “living things” randomly placed on it. Moving the cards into natural groupings that can be titled (e.g., animals, plants, fruits, vegetables, fish) provides a simple way (i.e., a diagram) to organize and analyze lots of “ideas” based on how they go together (i.e., reflecting an affinity or inherent or natural similarity). Affinity diagrams are tools used in classrooms primarily as organizational strategies, but they can have many other instructional uses (i.e., individualization tool, assessment and evaluation tool, planning tool).
Teaching students to use an affinity diagram. Affinity diagrams can be used in classrooms for completing and organizing large amounts of information and evaluating materials. Distinct steps should be taught to the students. First, the students should brainstorm. Second, the students should organize the information and add other relevant information as appropriate. Finally, the students should label the naturally formed categories. These steps ensure an orderly process for students to create “silent columns” and arrange what they have thought of into visual families. Several steps facilitate the process (see Figure 1):

- The students (individually or in groups) write short ideas, one to three words, on “notes” and place them on a desk, poster, or wall.
- Once all of the ideas have been posted, the students arrange them into natural groups that reflect a similarity or commonality (an affinity) that makes them go together.

* After the columns have been formed, the students discuss why they made the columns that they did and offer reasons why certain ideas belong together and work with others to identify a name and give reasons for the columns that were formed.

The affinity diagram acts as a guide to give the students a visual framework for representing the ideas. In this regard, different students can use the TQM tool to complete different tasks (as in individualized and differentiated instruction).

Using affinity diagrams to reflect many voices. Brainstorming and allowing all students to be heard are central to the affinity process. Teachers use affinity diagrams to create mission statements or rules for what happens in their classroom (i.e., procedures for turning in papers, mission statement for second semester and how many course objectives should be mastered, procedures for transition activities, class activities for raising money for a trip, or ways to reach a desired objective). For example, individuals or small groups of students would brainstorm goals that they have for the class as well as activities and procedures (ideas to be organized) that will allow them to achieve those goals. They could use an affinity diagram to focus on a classroom mission. Also working in small groups, students could use another affinity diagram to identify what must happen to meet their classroom goals. This form of individualization is a hallmark of special education and is very important in working with diverse learners in inclusive settings.

Using affinity diagrams to assess or review information. A wonderful use of the affinity is for assessment and review purposes. This too can be done either individually, in small groups, or in whole class scenarios. For example, before introducing new material in an academic area, it would be a good idea to understand how much the students already know about the new material. Teachers can save valuable time by doing a quick assessment through the affinity process. Why start at the very beginning of a unit when the students already know more information than is presented at the beginning? Or, what if a teacher finds that the students have absolutely no concept.
or background of a new unit in science? Having students do individual affinities in these situations will allow teachers to know exactly how much review or instruction each child needs before moving on to new instructional content. This type of assessment and evaluation is essential to successful integration of diverse learners in general education classrooms.

Using affinity diagrams to plan class projects. Affinities are ideal tools for planning projects, especially for diverse learners. Brainstorming specific thoughts on pieces of paper when planning projects can create ideal conditions for answering discussion questions, writing paragraphs or papers, or preparing reports. Students just need to learn how to organize their ideas and learn specific steps of what to do in each circumstance. Because affinity diagrams can be individual, students can be taught to even tear up a piece of paper, dissect the question, and write short ideas of what can be remembered. The students can then align the pieces of paper into columns and name the columns. These categories would serve as the major sections of the discussion answer, or students can be taught to write a sentence for each idea listed on a piece of paper. When planning steps to projects or the order of sections in lengthy papers, students can be taught to line up the columns in order from left to right and write or plan in that order. Having categories sometimes makes lengthy assignments or projects less ominous for diverse learners. When dealing with shorter attention spans, educators can present one "brainstormed" column at a time. As a matter of fact, the affinity diagram can be used as a modification for students with learning difficulties, especially those in written expression. This strategy allows students to see long-term steps and goals and determine what is needed to make each step happen through the use of this visual diagram. This type of individualized planning, of course, would be specific to each student’s learning style and very helpful in helping students with special learning needs succeed in general education settings.

Developing an Affinity for Affinity Diagrams

Many teachers are adopting TQM tools as classroom management methods. I identified only one of the tools in this article, and there are others that are just as useful and that have been shown to work quite well. As with students, teachers will need to identify how the affinity diagram tool works best for them and whether it fits their needs in a given situation for some or all students. For example, individual affinity diagrams are usually more appropriate for older students, but many teachers have used them in elementary school classrooms. Small group affinities are appropriate for all levels of students, but whole class efforts are more suitable for younger students. Some students may not like using this organizational tool, and they would rather figure out projects without the use of the affinity. Other students need an organizational tool for completing assignments. Some teachers may not opt to use this tool and believe that it is too time consuming for the length of their classes. Other teachers may not be able to instruct without it. Regardless, the affinity diagram has been shown to be effective and gives teachers the opportunity to understand where a student is academically and provides both the students and teachers with a tool for celebrating small victories. As with anything in education, especially situations that include diverse learners, the most important decision is being able to determine what works for each teacher and every student. One size does not fit all, but affinity diagrams fit many.

REFERENCES
