Is it best for a teacher to look for ways to teach all of the intelligences in a given day or lesson?

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MULTIPLE INTELLIGENCES
in the SMALL CLASSROOM

*T*heories are most useful if they are applied, and the Theory of Multiple Intelligences is no exception. So this article will look at ways to implement that theory in small schools. Multigrade schools are unique because they typically have one to three teachers, no principal to do administrative work, no counselor to do special testing, and often insufficient funds to hire teachers' aides. Since multigrade teachers are so busy, they need strategies that lighten their work load, not add to it. How can that happen if they use some of Gardner's ideas?

Evaluation

Many teachers ask how to find a student's strong intelligences. This article will provide some suggestions. Two cautions to begin with: First, do not assume that children should work only in their strong areas. They should strengthen weak areas as they work in strong areas. Second, do not attempt to use all of the intelligences in a single class, lesson, or day. Some content areas do not lend themselves well to incorporating all seven intelligences.

To avoid labeling students, I suggest the use of a portfolio. Materials that provide evidence of a student's strengths may be placed in the portfolio by the teacher, the student, or a parent. These items can include poetry, stories, or essays; videos made by the student or ones that showcase the child's gifts in areas such as gymnastics or crafts; as well as sound tracks; photos of artwork or sculpture, needlework, carpentry, or models; test scores, and a host of other materials that show what the student is capable of doing. After the child evaluates his or her interests and skills, he or she can reflect on the contents of the portfolio. The teacher can evaluate the portfolio and make suggestions. Together, the teacher and student can discover what the student does best.

To find a student's strong and weak intelligences, it is best to watch the child over a period of time and collect a large amount of data.[1] Thomas Armstrong has developed a checklist to help the teacher assess students' intelli-

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gences, and an inventory to help adults discover the strengths of their intelligences.[2] Gardner and his colleagues have developed a battery of 15 tests, called Project Spectrum, to cover a broad range of domains. These use a variety of activities to discover what the child likes to do, is interested in, and can do well.

Teachers need to remember that finding their students' strong intelligences and designing the curriculum to fit those strengths is only the first step. Next, they must help students strengthen intelligences that are weak while giving them opportunity to work in areas where they are strong. For instance, if a student has very high aptitude in music, he or she should not learn *only* through the musical intelligence. That would be a disservice to any child in an industrial culture that values primarily logical/mathematical and verbal/linguistic intelligences. A musical student will have to function in his or her culture.

Implementation

Gardner suggests having an assessment specialist analyze individual strengths through observation and interaction with the student. In a small school, the classroom teacher can fill this role if he or she knows the students well and understands the Multiple Intelligences Theory. Great care must be taken to find each student's area of strength and then guide him or her to learn what is culturally important in individually appropriate ways. Individual strengths should not be assessed primarily through standardized tests because these tend to be largely linguistic or logical/mathematical. The assessment specialist should be sensitive to each student, making accurate observations and drawing appropriate conclusion.[3]

Gardner recommends a second specialist, the curriculum broker. This person uses the students' individual assessment profiles to recommend courses and methods for teaching to each child's strengths or for developing intelligences that are not strong.

A group of teachers in Indianapolis began using MI in their school under the direction of Patricia Bolanos. These teachers, the "Indianapolis 8,"[4] developed a multiple-intelligences program

for cross-age students. "One of its founding principles is the conviction that each child should have his or her multiple intelligences (MI) stimulated every day." Building on this premise, the teachers' program used "pods," an apprenticeship group in which students work together to learn a discipline or activity of interest. All of the activities and products of the students in these "pods" were as close to real-life experiences and products as possible.[5]

The multigrade teacher can also fill the role of curriculum broker. Here is how such an arrangement might work. Recently, I taught a course on curriculum for the gifted. My students (most of whom were teachers) developed simulations using the idea of the "pod." Each one wrote a unit that simulated real-life activities. Two teachers who live near the ocean wrote about oceanography. This unit included time spent with environmentalists who study whales, a trip

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on an environmental boat, and other real-life situations. Students learned oceanography through the kinesthetic intelligence by engaging in various action-oriented activities, the musical intelligence through singing songs about the sea and ocean creatures, logical/mathematical intelligence through calculating sea currents and tidal patterns, which was incorporated into the science curriculum.

Teachers must plan "pods" or units that are do-able in the area where they live and work. Portfolios can be used to assess these activities, with expectations being based on the skill and knowledge of each student.

Organizing the School Day

Gardner suggests dividing the day into two types of learning. In the morning, students can study traditional subjects in non-traditional ways.[6] In the afternoon, they can explore the community using their best intelligence. This does *not* mean field trips since the students repeatedly return to sites to work on projects, such as art activities at a museum, or science projects at an aquarium, lake, ocean, or mountains. In-class assignments are tied to the activities in the community.

Both teachers and students should prepare theme-based projects. I have used four or more themes during a year, one for each quarter. Teachers can adapt the scheduling to meet the needs of their classrooms. When completed, the projects should be presented to an audience such as students from other classrooms, parents, or church members. Or they can be published in a journal or newspaper, made into a video, or presented in some other public way. The projects should be tied to the theme of the "pod."

Although the projects are student-centered, this does not mean that students are left to struggle alone. They need guidance in developing their projects. They are often unable to develop a meaningful project because they don't know how to get started.[7]

Assessment

Because of the current emphasis on evaluation of the United States and elsewhere, the projects will be more academically credible if they are carefully assessed. One way to do this is to have each student develop a portfolio and a collection of artifacts from the unit, and do a self-evaluation. At the end of each unit, the teacher should also do an evaluation.

The following plan is suggested by Gardner:

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Individual profile. The question should be asked: What does this project reveal "about the specific cognitive strengths, weaknesses, and proclivities of this student?" The profile includes the student's attitude toward work (taking risks, persevering) as well as the student's intellectual inclinations (linguistic, logical, spatial, interpersonal, and the like).[8]

Mastery of facts, skills, and concepts. Just because a project is well done does not mean that the student acquired the skills needed to master facts and concepts. Therefore, assessment must ask about factual material and measure previously acquired skills.

Quality of work. Evaluation criteria will depend on the nature of the project. For instance, when evaluating a research paper, the criteria used in language courses should be applied in measuring the quality of the work. With an artistic or musical project, the standards appropriate to the age of the student and the quality of music can be used for evaluation. As students use the various kinds of skills and learn the quality required for success, they will learn to assess their own work and meet high standards.

Communication. As they develop their projects, students should learn to communicate with people who work in related fields. They also need to find ways to share their findings with other students, parents, and teachers.

Reflection. This important part of any project is often neglected. It is easy to give a grade and move on to something else. Students need to take time to reflect on how they processed information, how they organized their project, and to review with the teacher how the work went.[9]

These suggestions are only a starting point for a personal evaluation system. Gardner does not suggest that any one plan for implementation should be rigidly followed. An evaluation system should reveal something about the strengths and weaknesses of students, their interests, and skills, and their strongest intelligences.[10]

Avoiding Oversimplification

In using MI, teachers often use reductionist strategies. That is, they see the teaching of MI as discovering an art ac-

tivity they can use to teach art to the visual/spatial child, or a musical project for the child whose gifts lie in that area. It would be more appropriate to help the class develop projects based on a theme such as the environment. Within the projects, each student can then use all of the intelligences in different ways.

The teacher needs to help shape the focus chosen by each student so that it emphasizes the child's strong intelligences, while strengthening intelligences in which he or she is weak. A student who is gifted in mathematics may need help in making a video about whales since the activity will combine spatial intelligence with mathematical activities and scientific hypothesizing.

Teachers often ask if I include all subject areas when planning project-style education. My answer is "No." Typically, I do not include certain courses in a project. One of those is mathematics, which does not always fit well into projects. For instance, it is difficult in a story-writing assignment to include all the mathematics skills needed for a particular grade. Some subject skills will need to be taught specifically to provide a foundation for advanced concepts. A few can be incorporated in projects, but one must be careful to identify where they are appropriate and not distort the teaching of a content area just to fit in all the seven intelligences every day.

Conclusion

The use of multiple intelligences offers the small-school teacher an opportunity to plan subjects, projects, and units that cross grade levels. It allows students who are weak in verbal skills to work with pupils in other grades who are mastering the skills they need. Cooperative projects can group children with similar achievement levels who are in different grades.

As you look for ways to implement the Theory of Multiple Intelligences in your classroom, keep in mind that the methods should feel comfortable to you. If including all of the intelligences in a given project doesn't work logically, then leave out the ones that don't fit. Keep in mind that this is just another way to shape a good curriculum. It is not a rigidly prescribed system. Use your skills and training to make good

decisions about where and when to use new ideas. ✐

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RECOMMENDED RESOURCES

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1. Howard Gardner, *Multiple Intelligences: The Theory in Practice* (New York: Basic Books, 1993), p. 87.

2. Thomas Armstrong, *Multiple Intelligences in the Classroom* (Alexandria, Va.: Association for Supervision and Curriculum Development, 1994), pp. 29-31, 18-20.

3. Gardner, *Multiple Intelligences*, p. 71.

4. Ibid., p. 112.

5. Ibid., p. 113.

6. Ibid., p. 75.

7. Ibid., p. 117.

8. Ibid., p. 115.

9. Ibid., pp. 115, 116.

10. Ibid., p. 116.

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