Criteria/Evaluation

When evaluating curriculum in the past I often looked at how the text presented material for the teacher (ease of presentation, completeness of content). Implementation is what I always considered most important. Looking at a curriculum from the perspective of social differences and other learning issues for the student has reinforced my belief that it takes a significant amount of time to properly implement any curriculum. The importance of the elements discussed below becomes very evident during implementation because without these criteria present it falls to the teacher to create the parts that are missing. I looked at five criteria, but combined the first two due to their related content and evaluations.

- How does the curriculum provide for individual social or cultural differences among learners?
- Do some of the planned goals relate to individual learners and their needs, purposes, interests and abilities?

The *Mathematics* text provides a large variety of alternate activities and materials depending on the student's abilities and needs, but it does not do much to address social and cultural issues. There are letters home in Spanish and English, but the worksheets are all in English. There are also a variety of "faces" within the curriculum, representing a variety of ethnic backgrounds, but all of the faces are contained within a middle income environment. As for addressing the students' interests, this is a very difficult task in a mathematics text. The text does bring in connections to other subject areas, traditional children's literature and sports activities, but it is a challenge to build in the flexibility of individual interests into the activities.

Although the curriculum does not specifically address social or cultural differences directly, it does contain elements that make the material more accessible to a variety of

students. The primary element for addressing differences in students is in the organization of the materials and supplemental resources. Students alternate between working individually, in pairs or small groups and also within large group discussions. This allows for different interaction levels of students. The supplemental worksheet also provide for differences in readiness by having 3 levels of difficulty (reteaching, practice, and enrichment). There are diagnostic tests and subsequent intervention suggestions as well as immediate interventions and error corrections within each lesson. Although this material is very helpful, it is not always practical to individualize each lesson and activity for each student, nor is it possible to assess each child's skill level and understanding in detail every day.

- Does the curriculum help learners acquire the problem solving skills they will need now and in the future?

The Scott Foresman-Addison Wesley *Mathematics* curriculum addresses problem solving consistently throughout the curriculum. There are problem solving strategies presented in each chapter, in addition the skills students are introduced to will help them in the future. Skills and strategies such as using a chart or data, finding patterns, ordering numbers, and estimation or mental math strategies are the key components to solving problems in math and other areas for the remainder of their school careers and even their lifetime. The instruction of reasoning or thinking skills is very difficult to teach to young students, it requires arguably more practice than even basic math facts because thinking has to be fluid and flexible to the situation or task at hand. The curriculum does have ample activities to help develop these thinking skills.

- Does the curriculum attempt to provide for earlier tasks inadequately achieved and for the maintenance when successfully achieved?

Reteaching of previously taught skills and the maintenance of acquired skills is addressed throughout this curriculum. There are a variety of avenues to address inadequately achieved skills in this curriculum, at the beginning of each section there are warm-up activities to connect to prior learning and reinforce necessary skills. In each section there are also spiral review pages that can be used as a full class review or an individual worksheet. The maintenance of skills is naturally reinforced within each unit as many of the skills and activities are built on prior learning and practice sections.

- Are instructional activities meaningful and authentic for students?

Defining "meaningful and authentic" for second graders is difficult in any content area, but particularly in math. The curriculum does a good job of using manipulatives to create a concreteness to the concepts, which helps create more meaning and authenticity to abstract concepts. In addition, this curriculum deals well with topics of time and money providing a solid connection to the real world. Throughout the text the curriculum strives to make connections with other content areas and the world around the student (keeping in mind that the world around them is presented as a middle class world). For this grade level I believe this curriculum does a good job of helping students connect to the math they are learning and attach meaning to the concepts presented.

Conclusion

The Scott Foresman-Addison Wesley second grade *Mathematics* curriculum is a reasonably balanced representation of an early elementary mathematics curriculum. There are issues with regard to the reading level of the curriculum and the expectation that students will be able to listen and comprehend while examples are read to them.