Who said manipulatives were overrated?

Over the last eight weeks we have used a number of manipulates to enrich our understanding of mathematical concepts. Whether it be, basic base ten blocks, 2D geometric shapes or pumpkins I have learned first hand the importance of using manipulative to make sense of math problems. Reflecting on my elementary education I have no recollection of frequently using or having access to manipulatives but this is just part of the movement to accommodate the learning needs of all the students in a classroom. I have decided to write a journal entry on this topic because after spending a couple of days in a classroom I have a better understanding of how to use manipulatives effectively, and why they are important.

Going in for my first observation day in a grade two class I went in with very few expectations. Little did I know, but the majority of the students' classroom time was dedicated to mathematics; this is when I realized how hard it is for students to understand math. Without even knowing it, I have been taking for granted my knowledge of number sense. Manipulatives are pivotal in teaching students how to count! Sure children could memorize the order in which numbers appear, but that will do them no good in upper elementary when they are expected to understand numbers up to 10 000. Although it would not be practical to count out 10 000 interlocking cubes to understand this number, this is why students progressively learn number sense.

Like I mentioned previously, I am doing my internship in a grade 2 classroom. The students have just started working with numbers 1-100, and are really struggling with the concept of skip counting by 2's, 5's and 10's. The student's

biggest challenge at this point is understanding the order of the numbers. It would be productive to do a number line with feet or something like we did in the beginning of the semester to help students overcome this misunderstanding. Their teacher encourages them to use a 100's chart to practice; other manipulatives such as the base 10 models would be a second valuable resource to use to help students master this concept. Furthermore, students may be able to relate to money more easily (nickels and dimes) which is another advantageous manipulative to use.

In conclusion, manipulatives are a valuable resource for teachers to apply to in their instruction. Learning math is extremely challenging to the majority of students; it does not come easily for most students. One thing that I am going to take away from this class is the notion that manipulatives should be used creatively, frequently and productively. Just having base 10 models set out on the desks isn't enough. As a teacher I have to be aware of students mathematical strengths and weakness while taking into account their interests to make this subject fun. Math doesn't have to be activity sheets and tests. It can be hands on activities, problem-solving games, and projects. To answer the initial question about whether or not manipulatives are overrated, the answer is a definite no. Studies illustrate how using manipulatives not only make math more interactive, but it also accommodates different learning styles as is outlined in Bloom's taxonomy.