

Comments on Everyday Math at Melawati

Mathematics education is a subject of great interest among educators and parents. Over the course of the past decade, substantive debate has taken place about the positives and negatives of various mathematical programs including Everyday Math, the program chosen by ISKL. Math textbooks or math resources, however, are only one piece of high quality mathematics instruction. The teaching involved is critical. Even the very best curriculum will be limited in its effectiveness in the hands of an unskilled and unmotivated teacher. Success in mathematics also involves strong parental support, a fact we tend to overlook in an international school environment where parental interest and support are typically very strong.

For three major reasons, ISKL believes the Everyday Math program was a good choice for ISKL:

- 1) ISKL's selection process was recent, thorough and professional;
- 2) Everyday Math fits with the school's Mission and philosophy and objectives.
- 3) There is strong support for Everyday Math among a wide variety of outstanding international schools that have conditions similar to ISKL's and to which we are most appropriately benchmarked.

“The overriding premise of our work is that throughout the grades from pre-K through 8 all students can and should be mathematically proficient. That means they understand mathematical ideas, compute fluently, solve problems, and engage in logical reasoning. They believe they can make sense out of mathematics and can use it to make sense out of things in their world. For them mathematics is personal and is important to their future.”

Teacher's Reference Manual – Everyday Mathematics – The University of Chicago School Mathematics Project, p. 409

Selection Process

Everyday Math was selected by ISKL educators and parents only after a thorough and rigorous adoption process involving 18 months of research, review and testing. The process involved administrators, teachers and Board members. The program was developed by the highly regarded University of Chicago School of Education Department.

- In 2005-2006 a school-wide Leadership Council was formed and developed a general adoption criteria, an Elementary Math Team refined the criteria, our Curriculum Coordinator arranged for sample materials to be reviewed by faculty, an Elementary Math Committee rated sample

materials against the criteria and selected two for further consideration - one of them was Everyday Math. Then the Administrative Team - with teacher input - refined the adoption criteria still further.

- As part of this process, curriculum from the UK and New Zealand were referenced, and specifically, elementary numeracy standards were compared with two international schools, two school districts in the U.S. and NCTM (National Council of Teachers of Mathematics) standards.
- Two units of Everyday Math were piloted, one in 2005-2006 and one in 2006-2007;
- In 2006-2007 parent surveys took place as well as research and training by representatives of Everyday Math, and in-house training on best practices in mathematics instruction;
- In November 2006 there was a formal math presentation and rating with additional consultation and input from Tony Harduar, then the ES Principal elect, and the Admin. Council;
- In December 2006, the Educational Policy Committee recommended the change and the change was approved by the Board;
- A Math Coach was hired to assist with implementation and instruction.

Strong Fit with ISKL's Mission, Philosophy and Objectives

In 2008, after an intensive year of self-study the school hosted a CIS/WASC Accreditation Team. The Team consisted of over a dozen professional educators from around the world who were charged with critiquing the school and assessing the appropriateness of offering ISKL formal re-accreditation (WASC) and first time accreditation (CIS). Their report included the following commendation:

“The Visiting Team commends the elementary school administration and mathematics faculty for searching for, identifying and implementing a program that is largely in line with the school’s philosophy and objectives.”

At ISKL standards and benchmarks guide instruction. Resources are selected for a particular subject to support the teaching & learning needed to meet these standards & benchmarks. Resources must be in line with the mission of the school and the philosophy of the discipline.

“Mathematics is used by people for making sense of and communicating the meaning of events and phenomena around them. We believe children construct mathematical understanding and learn best when mathematics is directly connected to their own lives. Children enter school with a personal interpretation of the world. Through experience, brain maturation and

interaction with others they leave elementary school developing as logical – mathematical thinkers. Mathematical knowledge and understanding are gained in different ways and at different rates. Previous experience, cultural background and attitude all influence this journey of growth in mathematics.” – *ES Math Philosophy*

Everyday Math is based on research that shows children build understanding and develop skills as a result of many meaningful and connected learning experiences. Mastery of concepts and skills comes with repeated exposure and practice, enabling children to make new connections and build on what they already know. It is designed to allow children to gain a genuine understanding of mathematical concepts to ensure a solid mathematical foundation.

As instruction is based on standards & benchmarks, any resource used by the school is mapped to ensure these are met. Student learning needs are continually monitored. As a result professional decisions are made as to when & how to use or supplement a resource. EDM is rigorous and offers opportunities for differentiation. However, at times, decisions are made to adjust the learning taking place. For example:

Prep Senior has supplemented the math centers to give more opportunities for students to work with various concepts and skills identified as core.

2nd Grade students last year needed more exposure to and practice at problem solving related to addition & subtraction.

3rd Grade is compacting a unit on early multiplication concepts & skills that appear to already be in place and are adding time and frequency to basic fact practice.

4th & 5th Grades are selective as to the geometry concepts addressed in alignment with the standards & benchmarks and hence the middle school program.

Support from other International Schools

There are numerous international schools of outstanding quality – schools with a similar clientele and philosophy to ISKL – that have selected Everyday Math and are very pleased with the results of using it. Four out of five of our IASAS sister schools presently utilize Everyday Math – Taipei American School, Jakarta International School, Singapore American School and the International School of Manila.

Many schools believe that Everyday Math has needed some adjustments at certain levels and in certain ways. ISKL feels the same way and as noted above, the School has made several adjustments since initiating the program.

Some people indicated that the program can be difficult for parents – and teachers – to understand when they are first introduced to it. This suggests the need for regular teacher and parent training. ISKL has made concerted efforts to offer parent workshop sessions

during the course of each school year. It is also noteworthy that the program publishers have made improvements in the program since it was first developed. ISKL has benefited from using the latest edition (2007) from the start.

It makes sense that we keep an eye on a variety of different programs in the future. We have, however, just recently embarked on a new direction in our elementary mathematics instruction that features Everyday Math resources. A formal mathematics review process will begin again in 2011 as part of our Six Year Standards Review Cycle. If you wish more information about Everyday Math you may find the program's website helpful: <http://everydaymath.uchicago.edu/parents>.