



The TEACHER CENTER of Broome County
Teacher Study Group Grant Award
2003-2004

FINAL REPORT
DOCUMENT PROCESSES AND OUTCOMES

STUDY GROUP TOPIC: Russian Mathematics Curriculum

GROUP MEMBERS: Emily Singer, Sassa Letton, John Letton, Alexis Roggeman and Madison Brookshire

The final report must be word-processed and submitted both in print and on disk using this form. Include information under each of the following headings.

Describe the initial goal of the group noting any adjustments that had to be made as time passed.

With a new group of faculty employing the Russian mathematics curriculum in their classrooms, initially our group's goal was to enhance our usage of the Russian math. We were also interested in extending our use of it into the middle school grades. With this extension we wanted to ensure that the Russian math would dovetail with the public school Math A curriculum. While we did examine the later texts in the curriculum, specifically with an eye towards Public High School mathematics, we decided not to examine the Math A curriculum directly. As our sessions progressed we focused our time more on ensuring that the terminology and symbols that the Russian math uses would not mislead or confuse students when the encounter conventional mathematical terms and symbols.

Describe the ACTION PLAN that the group followed.

We began our sessions by sharing our individual concerns about the Russian math curriculum and how they correlate with the needs of children at different ages. During each subsequent

meeting we worked through sections of the Russian math texts. With each problem we discussed teaching strategies, each problem's role in the scope of the curriculum, and the differences between conventional American mathematical terms and symbols and those used in the Russian math. Sometimes an individual teacher would bring a particularly interesting or puzzling problem to the group that s/he was currently working on with her/his students. Other times we worked through the texts sequentially, often identifying problems that meet particular classroom needs.

Describe how the action plan was implemented.

We met in a classroom at The Susquehanna School after school every week except during weeks that we had school events. In our practice we mirrored a Russian math class with students, working on problems individually, proposing solutions and then discussing our solutions until we reached consensus.

How has participating in this study group changed you as a teacher? Have any of your teaching practices changed?

As a group we feel that we have a much richer knowledge of the entire scope of the curriculum because of our work in the study group. This awareness of how the Russian math we are teaching fits into the entire sequence of the program helps us to focus our student's work and teach more effectively. During our meeting we spent considerable time working with the teacher guides to the texts and we have noticed that we rely them more often in the classroom.

What evidence is there that student achievement is improving as a result of participating in this study group? What kind of differences are you observing in your students?

We have observed in our own classes that students are responding to more focused and

productive math classes. It is clear to us as a faculty that students who have participated in the Russian math curriculum are better mathematicians than those who have not. They are more adept at solving mathematical problems and have a much deeper understanding of mathematical laws. This is especially apparent in the observations of our middle school teacher as she evaluates the mathematical abilities of her students. She has commented that the Russian math students “think like mathematicians.” We are confident that enhancing our use of the Russian math curriculum is improving student achievement.

What evidence is there that the goals of the study group have/have not been met?

We all feel that we have a much richer engagement with the text because of our work together. Each teacher has a clear understanding of how individual topics in the text contribute to the 5-6 year program. We found that there is tremendous similarity in the issues surround teaching math in all the classes. We have extended our use of the Russian mathematics curriculum into our middle school grades. We have successfully adjusted the Russian math, and the way that we teach conventional math, in the middle school grades to guard against confusion over terms and symbols. We expected that the Russian math curriculum was an excellent way to help prepare our students for the public school Math A curriculum. Through our meetings in the study group we feel confident of this.

Comment on the value of the study group process? Did it work for you?

We enjoyed the study group process very much. It was wonderful for us as teachers to engage in a seminar about something so integral to our school curriculum. We were able to accomplish much more together than we would have been able to do separately. We feel that we have gained a commonality about mathematics that is invaluable.

How can we make the study group program better?

We were very pleased with the study group program, especially the freedom it afforded us to focus our study on what was important to us, and shift when need be. We would certainly appreciate more opportunities to participate in this wonderful program.