

4-18-2008

2008 Sonia Kovalevsky Math for Girls Day Report

Association for Women in Mathematics, Lincoln University of Missouri

Donna L. Stallings
stalling@lincolnu.edu

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Recommended Citation

Association for Women in Mathematics, Lincoln University of Missouri and Stallings, Donna L., "2008 Sonia Kovalevsky Math for Girls Day Report" (2008). *Math for Girls Day Documents*. 5.
<https://bluetigercommons.lincolnu.edu/mathday4girls/5>

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Sonia Kovalevsky Math for Girls Day Report 2008

The Third annual Lincoln University Sonia Kovalevsky (LUSK) Math for Girls Day was held April 18th, 2008 from 8:30am to 2:00pm on the campus of Lincoln University in Jefferson City, MO.

Prior to the event, Lincoln University created a web page where parents & teachers could register and gather information regarding the day's events. Teachers and parents registered online, printed their registration forms, and then faxed or emailed them to the mathematics department office. Registration ended on April 1, 2008 with 114 students and 13 parents/teachers registered from the following schools:

- Jefferson City, MO – Helias High School,
- Jefferson City, MO – Thomas Jefferson Middle,
- Fulton, MO – Homeschooled Students
- St. Louis, MO – Hazelwood East Middle,
- Jefferson City, MO – Simonsen 9th Grade Center
- Jefferson City, MO – Lewis and Clark Middle
- Wardsville, MO – Blair Oaks High,
- Jefferson City, MO – Homeschooled students,
- Linn, MO – Linn High

After each registration was received, confirmation letters were mailed to confirm attendance and provide driving directions and information regarding workshops and the problem solving competition. We had hoped to host a student poster session, however none of the students were interested in participating. After talking to participating teachers and parents, Dr. Balakumar and Mrs. Stallings decided to host a second session at the fourth annual Math day. Faculty discussed hosting a training session for teachers to help them prepare students for a poster session and discuss what acceptable posters would include.

Our initial goal was to register 100 young ladies and their teachers and we were excited that we met and exceeded that goal long before April 18th. Helias High School requested that we increase the number of attendees per school. We were unable to accommodate them, but informed them that we would continue to seek additional funding in the future. The last two years, we have placed no limitations on the number of students a school could bring. This year, per previous evaluations, we limited the number of students to 20 from each school. This was done to allow more schools to participate. On the day of the event, 96 young ladies arrived along with their teachers and parents. 100% of the students completed surveys and provided comments throughout the day that will help us in planning for future Math Days.

Student Attendance Information

Grade	Total	Race	Total
6	6	Black	20
7	2	Asian	3
8	41	Hispanic	1
9	14	White	71
10	10	African American	1
11	12		
12	10	Grand Total	96
NR	1		
Grand Total	96		

School	Total
Home-schooled	6
Simonsen Ninth Grade Center	1
Thomas Jefferson Middle	20
Linn High	16
Lewis and Clark	1
Helias High	19
Hazelwood East Middle	19
Blair Oaks High	15
Grand Total	96

Teacher/Parent attendance Information

Race	Total
African American	2
White/Caucasian	10
Hispanic	1
Grand Total	13

Mrs. Donna Stallings, Program Co-Coordinator, and Dr. Ruthi Sturdevant, LU Computer Science, Technology, & Mathematics Department Head, provided a welcome on April 18th, 2008 to kick off the third annual Sonia Kovalevsky Math for Girls Day. The 2008 LUSK Day theme was Mathematical Modeling. The day began with a light continental breakfast and registration, which included meeting with Lincoln University mathematics majors and professional math tutors. The mathematics tutors and LU students helped program participants sign up for workshops, complete surveys, and obtain giveaway bags. Each participant received a LUSK Day program, LUSK Day T-shirt, LUSK Day backpack, a pen from Ameren Union Electric, and information about a free summer engineering program held at Lincoln University in conjunction with the Missouri Department of Transportation.

At the close of registration, LU student volunteers directed students to the appropriate competition classrooms. Many of the teachers attended the competition with their students. This year many of the teachers suggested having a teacher session while participants were engaged in the competition. We removed the teacher workshop from this year's program per evaluation comments. However, comments this year indicated that many of the teachers would prefer we reinstate the teacher workshop. The LU faculty agreed that having a workshop for teachers was important for professional development and would allow teachers to discuss and share new ideas for improving the teaching of mathematics.

Participating teachers divided students into teams of two or three prior to arriving in preparation for the forty-five minute team problem solving competition (Grades 10 – 12 High School Level, Grade 8 & 9 Middle School Level). There was a significant amount of discussion regarding whether or not to allow teachers to have a copy of the exam at the close of the day. The faculty agreed that the goal of the program was not the competition, but rather to expose students to various careers and opportunities in mathematics and science. Some faculty expressed a concern that the competition would become similar to the ACT or other standardized tests where participating teachers would begin to teach to the test. The decision was supported by the Department Head to keep the exam private.

After the Team Competition, students had the opportunity to choose from six different seminars. Each seminar was limited to 18 students to allow speakers to provide individual attention and hands on activities.

Seminar Speaker Information

Student Seminars

Mrs. Bernadette Turner, Lincoln University Mathematics Professor
Leonardo's Paisleys
Female, Caucasian

LTC Mark Jordan, Lincoln University ROTC Instructor
Orienteering
Male, African American

Dr. Leon Stevens, LU Computer Science Faculty/Tech Club Sponsor
Relationships and Robots
Male, Caucasian

Mr. Patrick Daugherty, NASA Missouri Liaison
NASA has the Math Covered
Male, Caucasian

Kuan-Ling Chen, US-Women In Nuclear Organization
Exciting Radioactivity – The Nuclear Cloud Chamber
Female, Asian

Ms. Brenda Grosinsky, US EPA
The Use of Science & Math for Environmental Decisions within the US EPA
Female, Caucasian

Ms. Sarah Kovalski, Supervising Engineer Ameren UE
Radiation in Your Environment
Female, Caucasian

Nato'sha Campbell & Tobey Glavin, LU Math Education Majors
Triggin Trees
Female, Black – Male, Caucasian

Ms. Jill Verslues & Mr. Charles Britton, LU Math Education Majors
Abraca Algebra
Female, Caucasian – Male, Caucasian

During lunch, students were enlightened and encouraged by Ms. E. Hope Bradley of Ameren Union Electric – Callaway Nuclear Plant. Ms. Bradley provided encouragement to students as she discussed her position at the Ameren Nuclear Plant and the educational requirements needed to advance in the area of nuclear science. She shared a power point slideshow that included pictures of the current plant in Callaway County. Ms. Bradley described the many components of the nuclear plant including the water vapor towers that are often mistaken for pollution clouds.

After lunch, teachers participated in an open competition for prizes that included LUSK Day T-shirts, LU paraphernalia, and donated items. Question topics included Sonia Kovalevsky's life, the luncheon speakers' presentation, and the history of Lincoln University. 1st, 2nd, and 3rd place student teams received medals (gold, silver, bronze) for obtaining the higher scores in the problem solving competition. All Students received participation certificates. Prior to closing students visited various campus buildings and facilities.

Suggestions (for others)/Challenges of 2008 program:

Each year we have used Federal, State, and Local agencies as presenters. All of the government agencies are always looking to recruit students and have provided great giveaways. I also like to use persons within the community who are somewhat well known (TV weather personality). This is usually a good attraction for teachers to bring their students. I also believe it is important to highlight a teacher within a district to encourage that district to participate. This was especially important for us since we are in our infant stages of the program. Having other grants to help support the math day helped me sponsor a small group from outside the local area. (Ameren Union Electric provided two \$125 stipends to help sponsor young ladies from schools that are more than 30 miles from Jefferson City, MO.) I hope next year we can find other grants that will help us sponsor students who could not attend due to a lack of or limited district funding.

A week after the program, faculty and program organizers met to evaluate the program and suggest changes. Below is a short summary of the suggestions made by student participants, teachers, LU faculty and volunteers.

1. Purchase smaller t-shirts for participants
2. Post short history summary's about Sonia Kovalevsky throughout the building.
3. Print a short bio on Sonia Kovalevsky in the math day program.
4. Decrease the number of participants from each school from 20 to 12.
5. Increase the target number of participants from 100 to 120. (This change would decrease the chance of one school winning in the awards in all categories. This year one high school won first, second, and third place in the high school division.)
6. Include a campus tour at the end of the day.
7. Include a time for supporting agencies to display and provide information to students and teachers about summer camps, internships, and cooperative programs.

We look forward to providing an even better event next year.