

Scientific Research and the Effectiveness of Presentations - The Student Inquiry and Research Program at IMSA

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Illinois Mathematics and Science Academy

Illinois Mathematics and Science Academy (IMSA)

- Residential academy for gifted students
- One hour west of Chicago, Illinois
- Approximately 650 students 10th-12th grade
- Approximately 50% female and 50% male

The Student Inquiry and Research Program (SIR)

- Open to 11th-12th grade students
- 2019-2020:
 - Off campus projects: 113 students
 - On campus projects: 116 students
 - On campus courses
 - On campus individual projects
- 2020-2021:
 - “Off campus” projects: 64 students (distance learning)
 - “On campus” projects: 120 students (distance learning)

Where our students do off-campus research (examples)

- Northwestern University Feinberg Medical School
- Northwestern University
- University of Chicago
- University of Illinois at Chicago
- University of Illinois Urbana-Champaign
- Fermi National Accelerator Laboratory
- Argonne National Laboratory
- Washington University, St. Louis
- Northern Illinois University
- Loyola University

Presentation of SIR Results

- Communication of research is critical!
- IMSAloquium (April 21, 2021)
 - All SIR students give oral presentation of results
 - Abstracts are in IMSA Digital Commons
https://digitalcommons.imsa.edu/sir_presentations/
- JSSF
- ISSF
- Publications in peer-reviewed journals

SIR- Sophomore Year

- Sophomores do not participate in SIR during sophomore year but can do scientific research starting the summer after sophomore year
- Sophomores can get ideas for research during Imsaloqium by looking at the posters and listening to the presentations

SIR - Junior Year

- Juniors can participate in SIR for the whole of junior year, and also the summer between junior and senior year, if so inclined
- Juniors in SIR returning from sophomore year summer usually continue with their research

SIR - Senior Year

- Some seniors usually are continuing their research from sophomore year, others from junior year or junior year summer
- Other seniors start new research projects in senior year

Effectiveness of Research Presentations

- Students encourage other students to join research projects
 - Residential, competitive, ambitious
- Students help each other find prospective mentors
 - Team work, collaboration
 - Good skills for future – college, life

Virtual SIR 2020-2021

- Great collaborative effort by all
- More faculty mentors on campus
- Research courses on campus
- New external (off campus) mentors recruited
- No student left behind – 100% placement

**Dave and Sowmya would like to
acknowledge the great work of
our SIR Administrative Assistant -
Ms. Cathy Cunz**

Thank you Cathy!

Questions?

- How can you implement science research in your school?
- How can you collaborate with other institutions from JSSF?
- What kind of projects would be relevant/possible at your institution?

Contact Us

We are always happy to help!
Thank you for listening!

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