

Welcome to How-To Session 1:
Structure of Directed Reading Programs

Pros, cons and issues surrounding:

1. Term-time vs. summer implementation
2. Compensation for participants
3. Oversight and strategies for continuity
4. Publicity and recruitment
5. Selecting participants

1. Term-time vs. summer

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Grad students

- ▶ Summer DRP can be used as a source of stipends (if available)
- ▶ Term-time can conflict with teaching/courses

Undergrads

- ▶ Students may not be available in summer, program may not be accessible to those who need to work in summer (see also: compensation)
- ▶ Summer program may be a good substitute for REU, especially for international students

2. Compensation

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Options and issues surrounding them

1. Buying books for participants (very common)
2. Payment
 - ▶ how much?
 - ▶ mentors and/or mentees?
 - ▶ how structured? (salary/scholarship/prize/honorarium/etc)
 - ▶ how funded?
3. Course credit
4. Nothing

3. Roles of faculty mentor and grad student committee

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“We have a DRP at my current institution, my sense is that it is run with far too much oversight by faculty.

My previous DRP experience was a program by students, for students. That was quite empowering, particularly for the mentors. It also covered an aspect of academic preparation that is not really covered in grad school – you are prepared to do research, prepared to teach, but not prepared to advise.

Indeed, having grad students now, I think some of the most valuable lessons I learned about mentorship came from my experience on the DRP”

3. Roles of faculty mentor and grad student committee

Specific roles

- ▶ Framing goals of program
- ▶ Keeping program running on time
- ▶ Selection, especially if competitive
- ▶ Troubleshooting (mentor/mentee issues)
- ▶ Continuity
- ▶ Reporting / data collection
- ▶ Preparing final presentation

4. Publicity and recruitment

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Advertising

- ▶ Make sure DRP is **accurately** represented in the minds of undergrads
- ▶ Broadening participation by reaching out to students who don't (yet) have strong math identity
- ▶ Recruiting mentors from other departments? (e.g. stats)

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Common problems

- ▶ Recruitment: reaching/serving limited groups of undergrads; skewed towards the ones who have the most classroom success anyway and most opportunities
- ▶ Not enough grad student mentors (sometimes by a factor of 5)

4. Publicity and recruitment

Thinking about target audience of undergrads:

“The DRP helped show me that graduate level mathematics wasn’t completely out of my reach”

“The guided self-learning approach that DRP creates an environment for helped in bolstering my confidence that I can be successful. Each semester I participated, I became more open to the idea that while there is still quite a bit of mathematics that I don’t know yet, I have the ability to learn it with enough self-motivation and some help.”

5. Selecting participants

Selection

- ▶ Structure of undergrad application process– what materials to request, how to weigh
 - ▶ Courses/grades
 - ▶ References
 - ▶ Open-ended questions
- ▶ Selecting students who will benefit, as opposed to only those with the strongest math background
- ▶ Various kinds of balance: topics, demographics, ages