

Supervising Research: Tips and Topics

**MAA Panel Presentation
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My Experience

- **McNair Scholars Program 1996-1999**
- **Independent Studies/Masters theses**
- **REU 2001-2002**

What is Math Research?

- **Problem Solving**
- **Course Projects/Competitions**
- **Independent Study**
- **Independent Solutions to Known Results**
- **Proving Special Cases of General Problems**
- **Generalizations/Extensions of Known Results**
- **Publishable Results**

Recruiting Students

- **Upper division courses**
 1. **Assign extra credit**
 2. **Mention research**
- **Math clubs**
- **Give talks for undergrads**
- **Use the students**

Suitable Topics

A problem is *suitable* if it is easily accessible and has guaranteed partial results.

- Personal Research
- Journal Articles
- Colleagues
- Poster Sessions
- REU websites
- Other websites

Completing Projects

- **Regular meetings**
- **Assignments**
- **Final paper**
- **Presentation**

Support from Dept

- **Tenure/Promotion**
- **University-wide recognition**
- **National recognition?**

Student Rewards

- **Course Credit**
- **Graduate with Honors**
- **Financial Rewards**
- **IT'S FUN**
- **Intellectually challenging/different**
- **More job-like than school**
- **Looks good on a resume**
- **Improves research skills**
- **Improves communication skills**
- **Foreshadowing for grad school**