

Improving Education of Teachers: What can a Department do?

Q: Does your state require Elementary Education majors take Physics?

Most states do not require El Majors to take physics. Students take it because they are advised to do so.

Physics by Inquiry is commonly used.

General recognition that the needs of these students are different than those of student groups we serve.

A variety of different texts are used – bits and pieces from different texts.

Q: What do we really want El Ed majors to know?

Some programs cover a vast amount of material at a rather shallow depth. Some programs cover less but deeper. Assessment of learning outcomes may be an issue to look into.

Q: Where is the Scientific method taught?

This may be as important as the content knowledge.

Q: How can we impact K-12 teachers?

Invite teachers to campus to ask what they want from Physics Depts. Example – develop hands-on materials keyed to state standards that can be taken to K-12 classrooms. If your university offers credit for service learning opportunities for undergraduates, involve them as well.

Q: How can Physics Departments better interact with schools/colleges of education?

Some Ed colleges teach physics content (U. Michigan, for example).

Other models – faculty with joint appointments in College of Science and College of Education.

RET (Research Experience for Teachers – NSF) programs are well received by teachers. Quarknet is well received as well.

Other programs to engage teachers. Discovery Nights at Hofstra. Research talks held on Thurs. night, once per month, in collaboration with School of Education. Many high school teachers attend. Teachers don't get in-service credits. No admission charged. Teachers encourage their students to attend.

Establish a presence at local AAPT meetings – host meeting in department.

Session Participants

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