Meeting: 1003, Atlanta, Georgia, MAA CP G1, MAA Session on Drawing on Our Students' Thinking to Improve the Mathematical Education of Teachers, I

1003-G1-1207 **Michael Keynes*** (`keynes@calumet.purdue.edu`), Purdue University Calumet, Department of MCSS, 2200 169th Street, Hammond, IN 46323, and **Eileen Fernandez** (`fernandeze@mail.montclair.edu`), Department of Mathematical Sciences, Montclair State University, Montclair, NJ 07043. *Using teachers' mathematics questions as an opportunity to deepen their understanding.*

We describe how we use teacher questions (e.g., why the product of negative numbers is positive) to design content lessons for teacher preparation (grades 5-10). These lessons not only encourage investigations to answer the questions, they provide teachers opportunities to engage in problem solving and an appreciation of the differences between mathematical proofs and pedagogically persuasive arguments. (Received October 04, 2004)