

**Promoting discourse between chemistry teachers
who teach Inquiry-type experiments in school laboratory**

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This is an era in which new standards are emerging regarding the way we professionalize the teachers. In Israel, high school chemistry teachers, begun to integrate inquiry-type experiments in their laboratory. An evidence-based continuous professional development model was developed in the Department of Science Teaching, at the Weizmann Institute, Israel, in order to support new teachers in implementing the inquiry program. The key objective of the continuous professional development model was to develop teachers' knowledge and pedagogy, so that they will be able to scaffold their students in acquiring the inquiry skills. The model has five components: A teacher's guide, a summer induction course, a workshop including forum on the web, an evidence-based portfolio, and videotape observations, which were designed and implemented throughout the period of three years. In this study we present some aspects of our research. Our main goal was to explore the contribution of the "Evidence" component. Seven high-school chemistry teachers participated in the inquiry program each year. They were novices in teaching the inquiry approach in the chemistry laboratory, but most of them had several years of experience in chemistry teaching. The teachers were interviewed and filled in several questionnaires. Based on our findings, we could conclude that presenting evidence is not a simple task, but it contributes to a profound discourse between teachers, deep meta-cognitive thinking and systematic reflection regarding the pedagogy and content knowledge of the inquiry approach and enhance their professional development. However, these results emphasize the need to create small teachers' groups who will be able to share their practice, by using pieces of evidence.