

EXECUTIVE SUMMARY

Approaches to Evaluating Faculty Outreach, Part III:

Demonstration Project—Evaluation of Teacher Professional Development Workshops on Sound and Hearing Health

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We have studied the evaluation needs, opportunities, and interests of faculty who have received Faculty Outreach awards to carry their expertise to public audiences around the state. As part of this study, we conducted three “demonstration projects” to generate practical examples and to bring evaluation-related concerns, challenges, and possibilities to the fore.

One of these demo projects examined a workshop for K-12 educators on sound and hearing health (SHH) led by Associate Professor Kathryn Arehart of Speech, Language and Hearing Sciences and her colleagues. The workshop addresses the physics of sound, the physiological basis of hearing, sound-induced hearing damage, and ways to prevent it, aiming to help teachers teach these ideas to schoolchildren and prevent sound-induced hearing damage. We developed pre-, post-, and follow-up surveys and collected data at the March 2012 workshop; additional pre/post data were gathered from an October 2012 workshop led collaboratively by Arehart and the Biological Sciences Initiative (BSI). Using Guskey’s (2000) model of evaluating teacher professional development (TPD), the surveys explored several levels of outcomes from the workshop: teacher satisfaction (Level 1), teacher learning (Level 2), organizational barriers to implementation (Level 3), and classroom implementation (Level 4). Student learning (Level 5) was not assessed, due to the complexity of this task and the small sample size.

Analysis of these data indicates quite positive results at Levels 1 (teacher satisfaction) and 2 (teacher learning). Clearly the SHH workshop is well planned, well executed and well received by teachers. This is particularly noteworthy given the mixed teacher audience by subject and grade level. Moreover, the findings were useful as formative feedback. In particular, teachers’ advice to offer more hands-on activities was explicitly incorporated into the October 2012 BSI-cosponsored workshop, by adding several new demos and activities, providing take-home handouts and materials, and building in time for teachers to experience the activities first-hand.

At Levels 3 (organizational barriers) and 4 (classroom implementation), the results reveal some challenges that are typical of one-day TPD activities. The extent of implementation has been moderate so far. With most teachers’ implementation necessarily delayed to the subsequent academic year, it can be challenging for teachers to retain their interest, learning and ideas for implementation over several months before they can apply it in their own classroom.

Overall, the data and our discussions with the outreach team highlight several quite general tradeoffs related to the utility and value of evidence about outcomes of TPD projects on this scale. The Guskey framework helped to shape our thinking about gathering evidence, yet TPD projects of this scope will seldom be able to gather student-level data. With respect to using evidence to guide TPD design, this workshop borrowed effectively from a prior, tested model of hearing health education, but was less well aligned with system-level features of effective TPD that have been identified from educational research studies. In addition to reporting on the SHH workshops, the report details these broader issues for consideration by University Outreach.