Professional Development Article Review

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Brinkerhoff, J.  (2006). Effects of a long-duration, professional development academy on technology skills, computer self-efficacy, and technology integration beliefs and practices. *Journal of Research on Technology in Education,* *39*(1), 22-43.Retrieved June 16, 2009, from Research Library database. (Document ID: 1145391431).

A special academy was developed and held at a large Southwestern university to provide professional development for teachers to aid them in more proficient technology skills, computer self-efficacy, and technology integration beliefs and practices. The academy’s program was developed in order to combat several barriers that were believed to cause a delay in technology integration. These barriers included resources, institutional and administrative issues, inadequate professional development, and teachers’ attitudes and perceptions toward technology (self efficacy). The 2 year staff development program was developed to address these barriers.

During the first year, the 25 participants met for five days during June 2002 and for five days during the academic year. The curriculum for this time period included focusing on the International Society for Technology in Education Standards (NETS) (2002) for teachers, skill development, research skills, peripheral use, and Web page design. Over the course of the year, these summer objectives were reviewed, as well as, how to successfully apply for grants, infuse technology into instruction, and create goals related to these criteria.

The second year (six participants were replaced) they met for five days again during the summer and five days during the school year. Four goals were set for the summer. They were to complete a hands-on project, a telecooperative and telcollaborative project, digital video activities, and create implementation requirements for the projects. During the school year the teachers were to use technology to support inquiry.

The research for this program was gathered through the use of surveys and interviews. The surveys were given at the beginning, middle, and end of the endeavor. The surveys included questions based on technology beliefs and competency and computer self-efficacy. The interviews were conducted with a selection of six participants. The analysis of this data was a one-way repeated-measures analysis of variance (ANOVA) and Mauchly’s Test with the Greenhouse Geisser adjustment. The interview data was transcribed and coded before it was evaluated.

Three themes emerged from the data analysis. The first showed an increase in the participants’ perception of an increase in technology skills. The second revealed less fear and more confidence with the use of technology. The final theme included the feeling of the participants’ teaching had been changed. The strength is not the actually change of technology use by the participant, but the change of the confidence and desire to alter their teaching.

The study was limited due to the collection was based on self-reported surveys. The results of the research showed changes in the participants’ beliefs and perceptions. When informal assessments were conducted the actual projects and instruction did not match the perceived result. Projects were minimal quality and failed to have a connection to content objectives. One possible conflict could have occurred due to differing definitions of technology integration. However, the results do confirm that a longer professional development period does improve technology use. It makes a few suggestions as to how to use the results to allow for better use in future staff development efforts, such as sharing, varying instruction, and the use of a trainer assessing the participants lesson plans.