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Science teacher as researcher through the research based program regarding to students' thinking skills

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Abstract

This program encouraging teachers as researcher to enhance students' learning and thinking included 3 years (2015-2017) with 39 science teachers and also approximately 1500 of their students. The project was conducted through the Khon Kaen Secondary Education Office, Office of Basic Education Commission, Ministry of Education, Thailand. The Research Based Training (RBT) consisted of four phases over the three years of the 'Teacher as Researcher' project. Year 1 (Phase 1) required teachers to learn and investigate current trends related to supporting students' thinking skills, and the associated teaching and learning processes. Year 2 (Phases 2 & 3) focused on developing the teachers as researchers, and consisted of (2.1) thinking skill and thinking research workshops, (2.2) inquiring and investigating minds workshops, (2.3) thinking research and evaluation tools workshop, and (2.4) the development of research proposal progressions undertaken via focus group procedures. Phase 3 involved the teachers seeking to improve and their students' thinking and learning skills in their own classrooms, and document their progress towards this goal. Phase 3.1 involved classroom observations, and in phase 3.2 involved the teachers' participation in a research seminar. In year 3, Phase 4 was undertaken. It focused on the teachers disseminating their research, which involved phase 4.1, a research writing workshop, and phase 4.2, attending and presenting at an international conference. The results revealed that can be promoted "Teacher Researcher" only 15 percent of all as well. By the way, as the "Researcher Practitioner" for 28 percent understanding the way to be researcher but that concepts weak on thinking characteristics. Most of all as "Knower Practitioner" about 50 percent understanding the way to be researcher but they were quiet. And the last as "Lower Practitioner" about 7 percent were nothing to do. For the researcher views, this research was involvement process that no direct knowledge of it, and the direct experience of. That teacher should have access to their own intentions and motives, thoughts and feelings. They ideally will usually have had long-term experience within the setting being studied and

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be motivated to keep practicing their classroom research. Doing research to enhance their students' thinking skills is useful for teachers to retain and apply new strategies, skills, and concepts. The evidence from this study also suggest student's developed improved thinking and learning with a deeper understanding.

Keywords: Science teacher, Teacher as researcher, Research