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Kimberly M Vincent* (vincent.kimberly@gmail.com), 100 Dairy Rd, Dept. of Mathematics, WSU, Pullman, WA 99164-3113. *Teaching For Transfer And High Cognitive Demand Through The Use Of Discourse In Algebra.*

According to Sfard (2008, pp9) "The most common widespread failure in more advanced school-type mathematics is its highly abstract character. Abstracting, the specialty of scientists at large and of mathematicians in particular, has always been a widely valued activity, appreciated for its power to produce useful generalizations."

Vincent asked pre- and in-service teachers to examine the cognitive demand of both mathematical tasks and questions posed during discourse, using Stein, Smith, Henningsen, and Silver's (2000) *The Task Analysis Guide* (p.16). Analysis of the data revealed that transfer of learning did not occur when learners are presented questions and tasks with low cognitive demand. Vincent also found both the in-service and pre-service teachers were not adept at asking questions in the abstract or general but instead asked questions specific to the context of the task at hand. From this data it appears that both pre-service and in-service teachers need a deeper understanding of and practice in the development of appropriate mathematical tasks and questions in order to elicit high levels of cognitive demand and to encourage transfer of learning. Vincent will share some promising strategies to improve teachers' ability to ask questions that encourage transfer. (Received September 22, 2009)