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**Kenneth M. Levasseur\*** (Kenneth\_Levasseur@uml.edu), Mathematical Sciences, North Campus, UMass Lowell, Lowell, MA 01854. *A Collaborative Approach to Professional Development Through Problem Solving.*

Building Regional Capacity (BRC), a collaboration of Education Development Center (EDC) and UMass Lowell (UML), is a professional development program for mathematics department heads, lead teachers at 7–12, and professional developers. The goal is for the participants to increase their own mathematical activity and that of their colleagues in order to support learning. Participants reflect on how they, their students, and their colleagues approach mathematics. BRC participants attend two consecutive summer institutes at the UML where they engage in graduate level mathematics courses and prepare to deliver effective professional development programs to teachers of mathematics in their own districts. Summer activities include: \* As part of a course in problem solving, each participant works on a problem of his/her choice from a recent MAA journal. A poster session at the end of the institute is a culmination of their work. \* Participants learn how to organize and run inservice professional development programs in their districts, using student work and work done in the study group to explore mathematical thinking. \* A discrete mathematics course in the second summer builds on the problem solving course. Details on these and other activities will be discussed. (Received September 11, 2000)