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K-20 is a BIG spread, from Kindergarten to PhD courses, from math-TEACHING to MATH-teaching. To form this expanse into a professional community demands a robust appreciation of and sensibility about math on the part of school-teachers and, more radically, a deeper and more sensitive understanding by academic mathematicians of the mathematical work of teaching. We see signs that such a community, of shared commitment and sensibility, is emerging, without infrastructure. There is one site in which the two communities structurally interact—the math content courses for teachers, in which the students are future teachers of children, and the teachers are often academic mathematicians. It is now understood that attending to mathematical integrity does not suffice for the mathematical needs of teaching. Teaching, even at elementary levels, involves special mathematical demands not familiar to most mathematicians, and not treated in academic math courses. Thus instructors in math content courses for teachers need to acquire a substantial knowledge of this specialized mathematical knowledge for teaching (MKT). I will briefly describe some useful sources of MKT, as well as an opportunity to see it deployed in live teaching, in the summer Elementary Math Lab at the University of Michigan. (Received September 23, 2012)