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**Guershon Harel\*** ([harel@math.ucsd.edu](mailto:harel@math.ucsd.edu)), 9500 Gilman Drive, Department of Mathematics, La Jolla, CA 92093. *Developing and Sustaining Professional Communities of Teachers around Mathematical Content and Student Intellectual Need.*

In this talk we discuss our effort to create and sustain a community of teachers organized around a shared purpose and coordinated effort to improve student learning. The collective actions carried out by the community are oriented within a conceptual framework, called DNR-based instruction in mathematics. The hallmark of DNR is that it puts the mathematical integrity of the content taught and the intellectual need of the student at the center of the instructional effort. As an example, we present the community's effort to implement a DNR-based geometry unit, whose main objective is to help teachers effectively deal with questions such as: How do we intellectually necessitate the abstract nature of geometric objects? How do we intellectually necessitate attention to precise definitions and proofs? How do we intellectually necessitate deductive geometry without attention to axioms and postulates, for which there is little or no place in high-school mathematics? How do we do so and still achieve the ultimate goals expressed in the Common Core State Standards for geometry? (Received September 24, 2012)