

**"Case Studies and Institutional Analysis of the Implementation of a Pedagogical Reform in Introductory Physics"** (Chandra Turpen presenting)

The poster contains elements of all four quadrants in that the four quadrants are stages of evolution. Projects like this poster that have a curriculum or policy classification are related to Van de Wen's concept of cycles and "running bases" in that these **MUST** already have undergone reflection by individuals to determine a need and a shared vision to initiate either curriculum or policy. The poster of CU-Boulder's reform began with reflective teachers elsewhere. Change is probably always initiated at the level of reflective teachers. Developing reflective teachers is important to enhance change initiatives. Many reflective teachers create shared visions.

Networks as presented by Noshir Contractor are important. They vary in scale from departmental networks through professional networks, international and cross-disciplinary networks. A future version of a tool like *CIKnow* may extend this kind of literature research because it can use researchers by name who are involved in faculty development and education research as key words to possibly pull out the related work from the learning outcomes literature under "assessment." Faculty development has a heavy emphasis on helping instructors in all fields to meet learning outcomes. All regional accreditation agencies make student learning outcomes the primary concern of accreditation review. In STEM, this often translates into students knowing what science is and how it works.