PROBLEM SOLVING DISPOSITIONS IN RURAL COMMUNITIES

Frederick A. Peck
University of Montana
frederick.peck@umontana.edu

Mary Alice Carlson
Montana State University
mary.carlson5@montana.edu

Adewale Adeolu
Montana State University
adewaleadeolu@montana.edu

Sara Killeen
University of Montana
sara.killeen@umontana.edu

Katherine McWalters
Montana State University
katherine.mcwalters@montana.edu

Even as the mathematics education field has highlighted the importance of community-based resources, most of the attention has focused on local knowledges and practices. There has been comparably less attention paid to community-based dispositions. In ethnographic fieldwork in rural communities, we identified 5 community-based problem solving dispositions.

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The mathematics education field has shown much interest in community-based, "everyday" practices (e.g., Civil, 2016). Research has documented the rich and varied ways that people understand and participate in the world (Lave, 1988). The field has also been interested in understanding disciplinary dispositions and advancing the notion that developing particular dispositions ought to be one goal of schooling (Gresalfi & Cobb, 2006). We bring these lines of inquiry together by sharing 5 community-based problem solving dispositions we found via ethnographic fieldwork in rural communities in the Rocky Mountain West.

Findings

We documented 5 CPSDs which were durable across data sources and communities: (1) *Self-reliance*: Community members were inclined to "do it themselves" or learn how to do it themselves. (2) *Resourcefulness*: Even as community members were disposed towards self-reliance, they were also inclined to seek out and use material and social resources to help them solve problems. (3) *Care/Helpfulness*: We found that community members were inclined to care for one another and accept care from others when faced with problems. (4) *Try something and iterate*: Community members were inclined to dive right in and "try" something. The notion of trying captures the willingness to attempt a particular approach, without full confidence that it will work. (5) *Practical wisdom*: Community member were inclined to use knowledge developed through experience, or which circulated and was taken for granted in the community.

Implications

We agree with scholars who argue that schools should not seek to replace community-based resources but rather should seek to *build with* and *strengthen* them. Our work has implications for this effort. For example, many classrooms are organized to purposefully restrict access to resources, especially during consequential activities such as testing. This seems to work against a community-based disposition of resourcefulness. Our work prompts us to wonder how schools might be reorganized to build with and strengthen this and other community-based dispositions.

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