

## Continuum of Sociomathematical Norms

	<i>Less likely to promote mathematical learning</i>	←————→	<i>More likely to promote mathematical learning</i>
<b>Engaging in Tasks</b>	Goal is to get an answer or solution	Makes a mathematical argument to justify the solution and attempts to understand the solution, sometimes in relationship to other possible solutions	Interprets the solution in relationship to assumptions, makes a mathematical argument to justify the solution and considers it in relationship to generalizing beyond the context
<b>Sharing/Explanation</b>	Ideas and solutions are shared with minimal or no explanation	Thinking is described, often in procedural terms	Explanations consist of a mathematical argument
<b>Solution Strategies</b>	Emphasis is on one single solution or strategy	Multiple strategies and solutions are described	Emphasis is placed on the relationships among multiple solutions and/or strategies
<b>Confusion and Error</b>	Confusion and mistakes are avoided or ignored, or are corrected by the PD leader	Confusion and mistakes are acknowledged in hopes of causing disequilibrium and change in understanding	Confusion and errors are embraced as opportunities to compare ideas, reconceptualize problems, explore contradictions in solutions, or pursue alternative strategies
<b>Questioning</b>	The PD leader asks questions aimed at maintaining social order or eliciting specific responses	Both the PD leader and teachers raise procedural and/or factual questions about the mathematics	Both the PD leader and teachers raise questions that push on understanding of mathematics/mathematical reasoning
<b>Community</b>	Work is generally done individually or ideas are shared through PD leader explication	Teachers and PD leader collaborate to find solutions to problems	Mathematical argumentation forms the basis of a generative learning process where individuals take responsibility for their own and the group's progress