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Assessing First Year Students' Epistemological Beliefs about Learning Physical Science

Epistemological beliefs individuals hold about the nature of knowledge and learning play a crucial role in understanding and engaging in the physical sciences. These beliefs influence how students, educators, and researchers perceive scientific concepts, theories, and methodologies. In the context of physical sciences, epistemological beliefs encompass views on the certainty and structure of scientific knowledge, the role of empirical evidence, the nature of scientific inquiry, and the evolution of theories over time. While some individuals may see scientific knowledge as absolute and unchanging, others recognize its dynamic and tentative nature, shaped by ongoing experimentation and revision. Research suggests that sophisticated epistemological beliefs, which acknowledge the complexity and evolving nature of scientific understanding, enhance critical thinking, problem-solving, and engagement in scientific discourse. The study shows a slight improvement in the sophistication of epistemological beliefs after intervention using inquiry-based approaches.

Apply for student award at which level:

None

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