

The Nature of Science > Scientific World View

Research on Student Learning

Although most students believe that scientific knowledge changes, they typically think changes occur mainly in facts and mostly through the invention of improved technology for observation and measurement. They do not recognize that changed theories sometimes suggest new observations or reinterpretation of previous observations. [1] Some research indicates that it is difficult for middle-school students to understand the development of scientific knowledge through the interaction of theory and observation. [2] The lack of long-term teaching interventions to investigate the issue of student comprehension of the development of scientific knowledge through the interaction of theory and observation makes it difficult to conclude that students can or cannot gain that understanding at this grade level. [3]

References

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- [3] American Association for the Advancement of Science, Project 2061 (2007). *Atlas for Science Literacy*, 2, 4.