

There is evidence that curriculums that are designed to provide reading materials *after* students have gained some experiences can improve reading, language arts, and other skills.

(Source: Lowery, L.F. 1998. *How New Science Curriculums Reflect Brain Research*. Educational Leadership. November. p.26-30)

Students in issue-oriented science classrooms learn to understand scientific evidence and its limitations, assess risks and benefits, ask questions, and make decisions based on evidence rather than on pure emotion.

(Source: Their, H and Nagle. B. STS Education: International Perspectives on Reform. 1991. *Developing a Model for Issue-Oriented Science*. Ed: Solomon, J and G. Aikenhead. New York, NY.: Teachers College Press, p.76)

Teachers in issue-oriented classrooms create situations where understanding can grow, where issues can be explored, and where students can interact. The teacher is willing to say, “I don’t know, let’s find out” and “Science cannot answer that question, it’s a public policy issue.”

(Source: Their, H and Nagle. B. STS Education: International Perspectives on Reform. 1991. *Developing a Model for Issue-Oriented Science*. Ed: Solomon, J and G. Aikenhead. New York, NY.: Teachers College Press, p.77)

To use inquiry to answer a question, you have to become good at knowing what you don’t know. I would argue that that’s exactly the opposite of what happens in schools. Classrooms focus on what you do know or are supposed to know and leave you unprepared to deal with things you don’t know.

(Source: National Science Foundation. 1999. *Inquiry; Thoughts, Views, and Strategies for the K-5 Classroom*. Foundations, Volume 2. Arlington, VA: Division of Elementary, Secondary, and Information Education, National Science Foundation, p.109)

One critical aspect of science education is to help children develop the skills they need to think like scientists in their pursuit of understanding.

(Source: National Science Foundation. 1999. *Inquiry; Thoughts, Views, and Strategies for the K-5 Classroom*. Foundations, Volume 2. Arlington, VA:

Division of Elementary, Secondary, and Information Education, National Science Foundation, p.1)

All hands-on is not inquiry; all inquiry is not hands-on.

(Source: National Science Foundation. 1999. Inquiry; Thoughts, Views, and Strategies for the K-5 Classroom. Foundations, Volume 2. Arlington, VA: Division of Elementary, Secondary, and Information Education, national Science Foundation, p.34)

The attainment of process skills developed by programs that emphasize hands-on manipulative experience are positively correlated with the development of reading readiness.

(Source: Science Process Skills paper-Nicodemus, 1968; Ritz, 1969; Rowe1968; and Stafford, 1969)

Research has shown that science can enhance the language development of children of limited English proficiency, of children from different ethnic backgrounds, and of physically handicapped children.

(Source: Science Process Skills paper - Kral)