Case Closed: Studies in Developing Reflective Explorers and Innovators

Discover how school librarians support knowledge creation by developing curious, innovative, collaborative, and reflective learners. Each case study connects to relevant scenarios and activities contained in the *Developing Reflective Explorers and Innovators Activity Guide*. Visit **standards.aasl.org/project/explorers**.

NATIONAL SCHOOL LIBRARY STANDARDS

Ponder and Wonder

SUMMARY
When learners are curious, they explore. This 2018 article, from *Science & Education*, provides a conceptual model for K–12 science educators on methods to promote learner curiosity in their instruction. By maximizing learners' natural curiosity, school librarians can engage them in authentic ways.
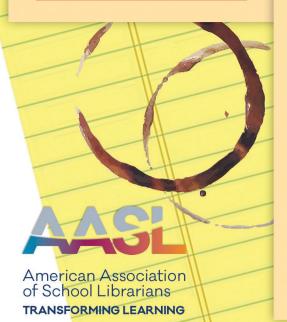
Lindholm, M. 2018. "Promoting Curiosity? Possibilities and Pitfalls in Science Education." *Science & Education* 27 (9–10): 998.

Lindhom said it best, **"Deep curiosity is an essential factor** as a driving force for societal and scientific growth, **and to maintain its development and wellbeing throughout childhood** in science education **is an urgent task."**

"Curiosity is a wonder of the human mind."

SUGGESTED ACTIVITIES
Learner/Create Activity 3: Moving Beyond the Page

Learner/Share Activity 2: Creating a Teen Conference

Learner/Grow Scenario: The Science Fair

Uncover to Discover

SUMMARY
Inquiry-based approaches can help learners explore. This 2019 *District Administration* article explains that when instruction focuses on observation of natural phenomena, learners' curiosity is heightened. When taking on an inquiry approach, learners take the lead by asking questions and discovering the answers themselves.

Bendici, Ray. 2019. "Curiosity Drives Phenomena-Based Learning, Which Stresses Investigation, Collaboration and Discovery." *District Administration*. (Mar.)

"Educators know most students brim with natural curiosity and a desire to make sense of the world around them."

"I like to think of phenomena as breadcrumbs that teachers are going to use to guide students along learning paths," says Ted Willard, assistant director for science standards for the National Science Teachers Association. **"Unlike in a traditional teacher-led lesson, students lead by asking questions, collaborating, discovering connections, designing models, and ultimately, making sense of what they observe."**

SUGGESTED ACTIVITIES
Learner/Think Scenario: Exploring Career Opportunities

School Librarians/Think Activity 2: Finding and Using Evidence to Investigate Questions

School Libraries/Think Activity 3: Inquiry Models and Tools For Explorers

Create to Innovate

SUMMARY
A school library's focus on providing student access to technology makes it a great place for learners to explore. This 2019 *Knowledge Quest* article details one school librarian's experience as she used the Shared Foundation of Explore to advocate for the inclusion of a 3-D printer in her school library for her learners.

Osborne, Amanda T. 2019. "Create in 3-D: Building a Maker Mindset One Print at a Time." *Knowledge Quest* 48 (1): 48–53.

SUGGESTED ACTIVITIES
School Library/Create Scenario: Effectively Growing a Makerspace.

School Library/Share Activity 2: Promoting Professional Networks to Strengthen Competencies

School Librarian/Create Activity 3: Scavenger Improvement Lab

"**Investing in technology for the school library ensures that all students**, regardless of their achievement on standardized tests, will have **access to innovative tools to learn digital skills necessary to thrive** in 21st-century college and career environments."

"In a 2019 case study, a makerspace with a 3-D printer helped **bridge the digital divide** and **significantly improved students' ability** to narrate their own story."

Free to Lead

SUMMARY
Learners who develop personal integrity, efficacy, and agency are empowered to explore. This 2017 *Knowledge Quest* article details how school librarians can enable learner agency through a variety of strategies and structures including providing reflective feedback, affirming learners' personal integrity, and encouraging choice in recreational reading.

Williams, P. 2017. "Student Agency for Powerful Learning." *Knowledge Quest* 45 (4): 8–15.

SUGGESTED ACTIVITIES
School Librarian/Create Scenario: The Reading Adventure Continues

School Librarian/Share Activity 1: Organize a Group-Think Committee

School Library/Grow Activity 3: Develop a Growth Mindset

"**Students with agency are POWERFUL LEARNERS who are prepared to engage with the world with sustained, COURAGEOUS CURIOSITY"** (Claxton 2013).

"**School libraries play a powerful role in enabling, informing, and sustaining student agency**, and **nothing engages and motivates students more deeply than enabling them to become the active agents in the process of learning**."

"**Our task as educators is not to tell [learners] what to think but to help reveal their thinking** by **reflecting back** to them what we are **observing and noticing**, and naming their acts of **problem solving**."

Through instructional design and their commitment to access for all students, school librarians play an essential role in encouraging their learners' curiosity and helping learners develop a sense of agency.

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