Adolescent learning: What's new?

Mr. Joe Ginotti, PLN Associate Director, reviews Adolescent research and findings that inform PLN practices and philosophy for secondary schools.

Key Findings in Brain-based Learning: How People Learn: Brain, Mind, Experience and School from the National Research Council:

Students come to the classroom with prior knowledge and preconceptions. If their initial understanding is not engaged (connection made), learning will be superficial or non-existent.

A metacognitive approach stressing regular formative assessments will help students better control, monitor and deepen their learning.

To develop competence in an area of inquiry or study, students must:

(a) Understand the larger context or conceptual framework,

(b) Develop a deep foundation of factual knowledge, skills or strategies,

(c) Organize and reconstruct knowledge in ways that facilitate retrieval and application of learning.

Implications for Educators:

Teachers must design classroom environments that are:

• Learner-centered: engaged and active classrooms that stress student collaboration and cooperative learning.
• Knowledge-centered: defining what is taught, why it is taught, and what competence looks like.
• Assessment-centered: built around ongoing and regular formative assessment making student thinking visible and accountable and leading to success on pre-designed summative assessments.

Organizing Instruction and Study to Improve Student Learning from The National Center for Educational Research and The institute of Education Sciences Key Findings and Recommendations:

• Space learning over time. (revisit, review, reapply learning over time. Learning needs a focus on big ideas and larger concepts.)
• Combine multiple modalities: graphics, visual auditory descriptions, readings and presentations.
• Interweave modeling and problem-solving- Alternate between teacher led and student centered learning emphasizing student centered work over time.
• Connect and integrate abstract and concrete representations: concrete examples need to be linked to the prior and experiences of the students and the classroom.

What we know:

• To engage students, we must help them see connections between their lives and their work in school.

• We must create responsive and inclusive learning environments that offer a choice of texts, opportunities for lively discussion, and many pathways for engagement.

• We know a variety of effective teaching and learning strategies: i.e. teacher modeling, teaching literacy skills in context, frequent assessment, and student collaboration.

• Enhancing integrated literacy skills will improve learning in the content areas.

• The success of any secondary reform initiative depends on leadership, vision, ongoing professional development and the strategic use of resources- time, people, space, and materials.