The Complexity of Learning and Teaching

A Complexity of Learning and Teaching Graphic

To address the diverse needs of all learners, educators consider varied components of instruction to refine their practice. Recent research (e.g., Leithwood, 2013; Hattie, 2012) investigating the learning and teaching process makes frequent reference to the importance of each of the components illustrated in the graphic below. Responsive, effective and coherent practice includes all of the following components:

**REFLECTIVE STANCE** that includes:
- Evidence-informed thinking about the current state, the ideal state, how to bridge the gap, and how to gauge progress along the way
- Seeking feedback on impact of teaching to inform next steps

**LEARNING ENVIRONMENT** that is culturally responsive and based on:
- A belief that all students can learn
- An understanding of ‘how we learn’
- Our needs as we learn: affirmation, relationships, challenge, contribution, power and autonomy, purpose, student voice

**PEDAGOGICAL CONTENT KNOWLEDGE**
Knowledge of the learner, curriculum and program within and across subject disciplines: content and pedagogy (e.g., organizing and connecting content, cognitive and metacognitive skills), and related learning skills and work habits

**DIFFERENTIATED RESPONSE** that addresses the needs of different learners:
- Know the Learner – assess to gather information about student readiness, interests and/or learning preferences, and
- Respond to the particular needs of different groups of learners by differentiating ways of learning and ways to demonstrate learning

**ASSESSMENT** to inform instruction and learning by identifying learning goals and success criteria, providing effective feedback as part of assessing for, as and of learning, and making thinking and learning visible

**EVALUATION** based on a variety of evidence (e.g., observations, conversations and products) documented over time and focusing on the achievement of overall expectations

**INSTRUCTIONAL STRATEGIES** that are engaging and strategic — based on where learning needs to go and targeted to the level of support required
- Educators use a repertoire of instructional strategies that are responsive to student learning interests, preferences and assessed needs
- Practice is adaptive — selecting and fine-tuning strategies based on what works — for the student, the context and the intended area of learning
- Educators ask themselves: Why this learning, with this student at this time, in this way? What is the impact?

**DESIGN FOR LEARNING** that is based on the concepts of universal design for learning and an understanding of how learning happens:
- Focus and engage students by activating prior knowledge and experience, helping generate questions and discussing current understandings related to the learning goals
- Engage in learning opportunities that are relevant, authentic and appropriate to needs, monitor progress, adapt or extend the learning with opportunities for shared, guided and independent practice
- Consolidate, connect and reflect on the process as well as the new learning and understandings
Differentiated Response – Planned and Adaptive

by using conversations, observations and products to find out about:

- **INTERESTS** including goals and assets
- **READINESS** prior learning
- **LEARNING PREFERENCES** ways of learning and demonstrating learning

one or more of:

- **THE WAY STUDENTS LEARN** (e.g., guided practice, collaborative talk)
- **THE WAY STUDENTS DEMONSTRATE LEARNING** (e.g., writing, speaking)
- **THE CONDITIONS FOR LEARNING** (e.g., working alone or small groups)
- **ENTRY POINTS FOR LEARNING or TOPIC** (e.g., open ended or parallel tasks, choice of novel)

INCLUDE the KEY FEATURES Of DI

- **Flexible Learning Groups** (e.g., based on interests, readiness – varied over time)
- **Opportunities for Choice and Personal Response** (e.g., choice of topic; personalized approach to solving a problem)
- **Shared Responsibility for Learning** (e.g., enabled by student voice and student self-assessment)
- **Respectful Tasks** (e.g., tasks that are equally engaging)