



Professional Development Webinar

(Term 2, 2016)

Advances in Student Assessment
It Just Got Interesting!

Student Assessment

Current Perspective

Information about Student Performance

- Assessment Tasks
- Individual vs Group
- Variety of Assessment Methods

Traditional Assessments

- Multiple-choice, true-false, matching, completion, and short-answer

Alternative Assessments

- Portfolios, student self-assessment, observations, cognitive assessment, and other performance-based assessments etc

Student Assessment

Teacher Responsibilities

Responsibilities

- Decisions: what and how student learn
- Integrated assessment



Classroom Assessment

- Measure learning
- Report learning
- Promote learning



Teachers facilitate Learning

- Feedback on learning progress
- Identify learning problems and opportunities



Assessment Approaches

Collecting data in meaningful ways

Three Opportunities

Collecting and using student information in meaningful ways

**Before
Instruction**

**Pre-instructional
or diagnostic
assessment**

**During
Instruction**

**Formative
assessment or
assessment for
learning**

After Instruction

**Summative
assessment or
assessment of
learning**

Assessment Approaches

Collecting data in meaningful ways

Pre-instructional or
diagnostic assessment



**Before
Instruction**

- Deep insights
- Tailored support and instruction
- Improved learning, behavioural engagement and academic results
- Applicable to struggling, striving or excelling students

Assessment Approaches

Collecting data in meaningful ways

**Formative assessment or
assessment for learning**



**During
Instruction**

- Status of student learning
- Progression in learning
- Responsiveness within teaching process
- Directly serves learning itself
- Feedback is key - timely, specific, understandable to the receiver, and allow for student self-adjustment

Assessment Approaches

Collecting data in meaningful ways

**Summative assessment or
assessment of learning**



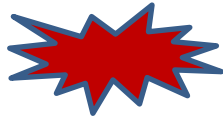
After Instruction

- Evaluate student learning, skill acquisition, and academic achievement
- Compared against some standard or benchmark
- High stakes assessment -> consequences
- Dual purposes: Certification and Accountability

Revisiting Assessment

New thinking on classroom assessment

Moment-to-moment decisions



- Greater supplementary assessments
- Use of alternative assessments
- Relevant, accurate and timely information

Aligning knowledge and skills during assessment



- Thinking skills, cognitive processes, collaborative skills
- Learning mindfully and cooperatively with others

Student involvement in all aspects of assessment



- Students active in designing tasks and questions
- Self evaluation
- Feedback to fellow students
- Deeper understanding of learning content and process

Formative Assessment

Greater emphasis on assessment for learning

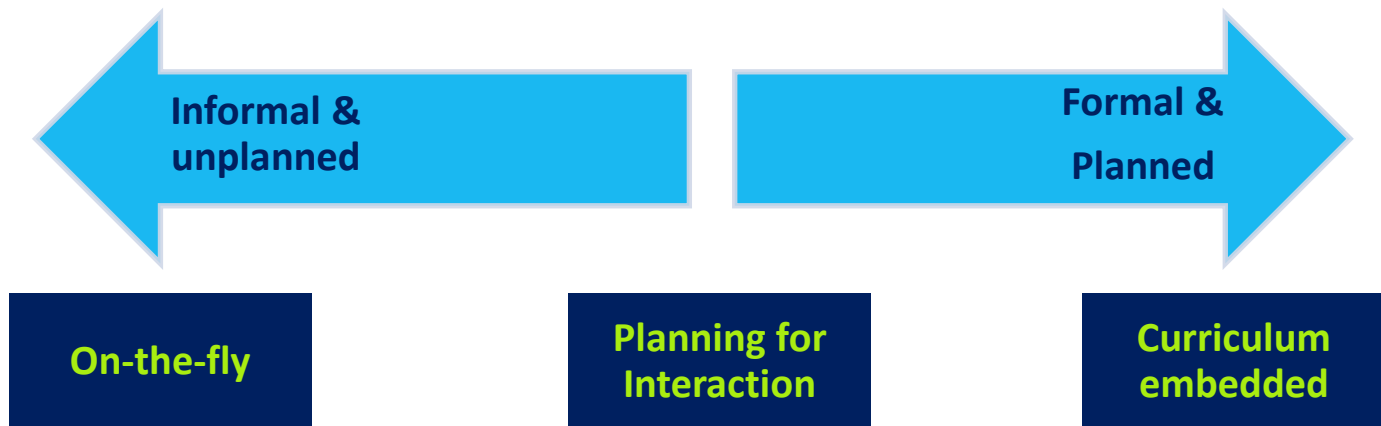
Enhanced structure of formative assessment

Systematic process

Continuous information about learning of students

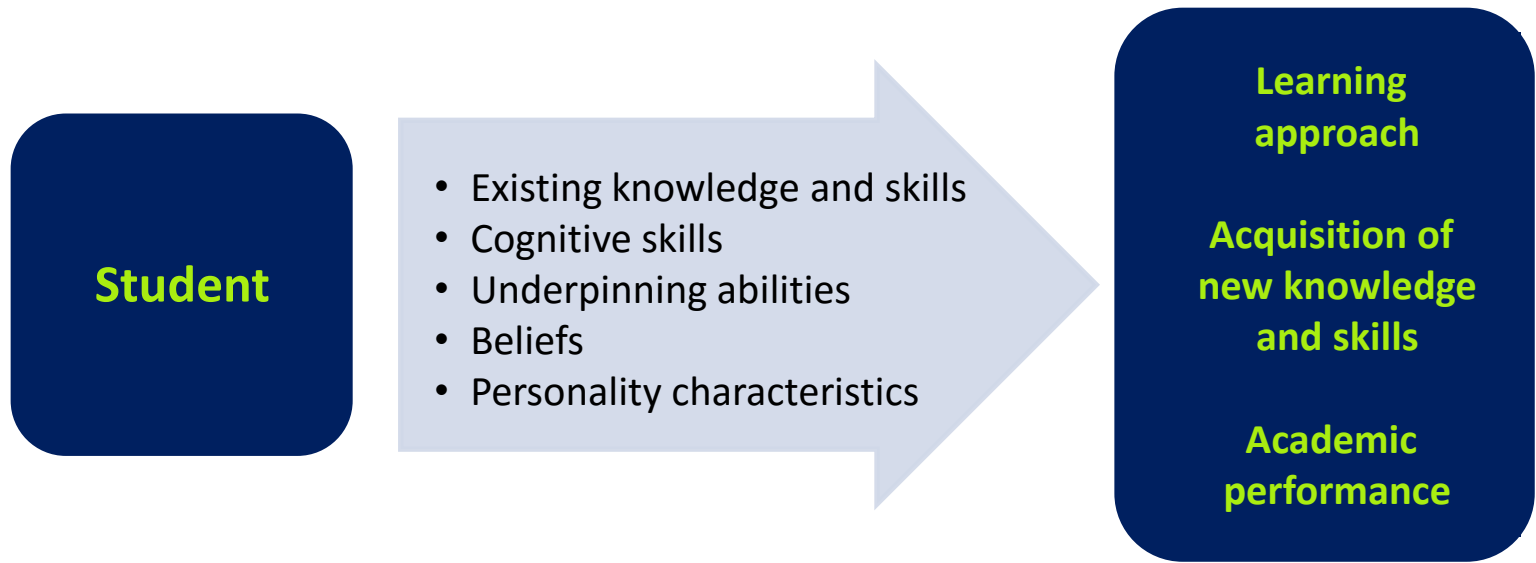
Evidenced-based methods

Integrate naturally



Instruction and Assessment

Blending and Blurring...



Successful Implementation

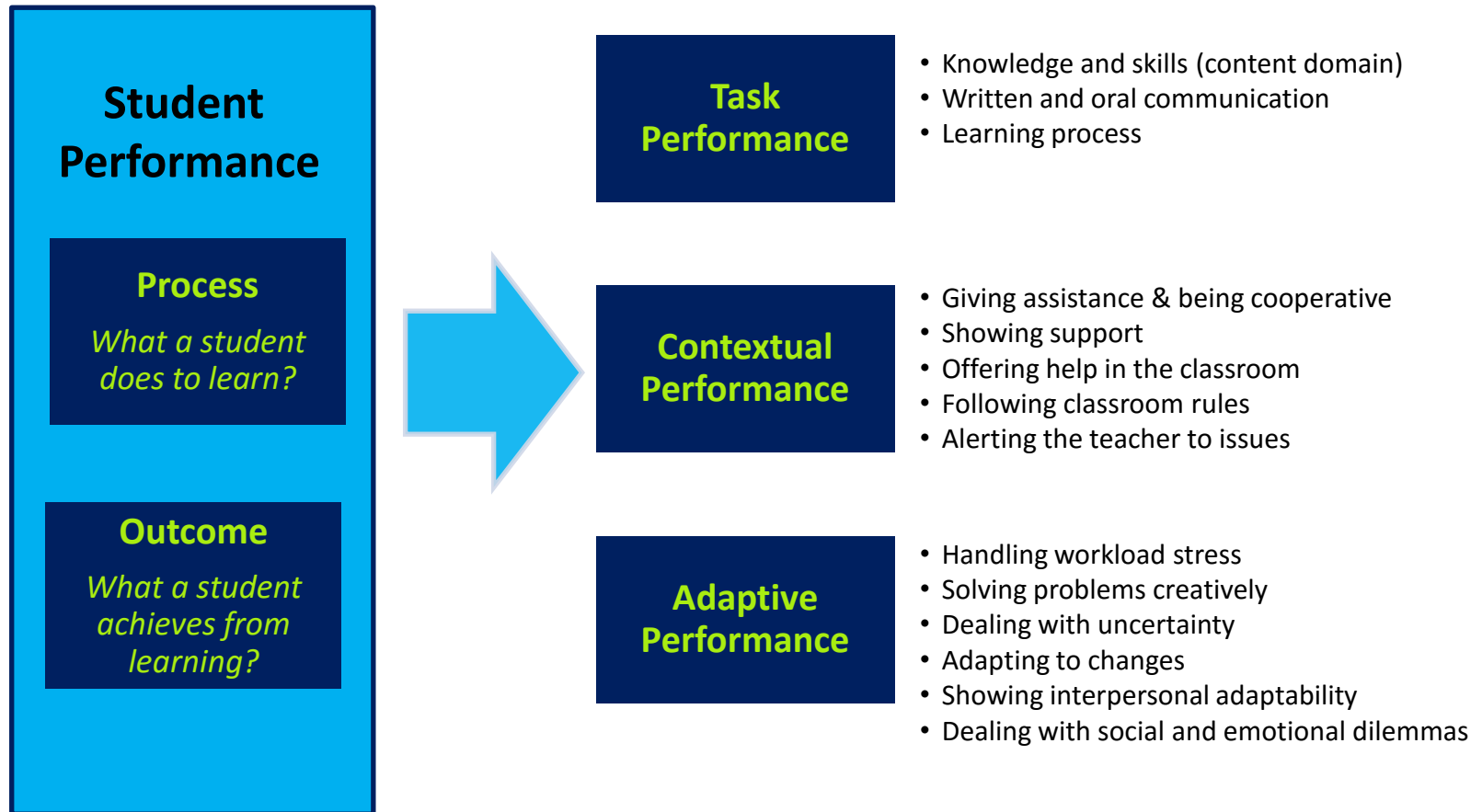
Classroom conditions for successful assessment

Informative and enabling feedback

Students assess their own learning

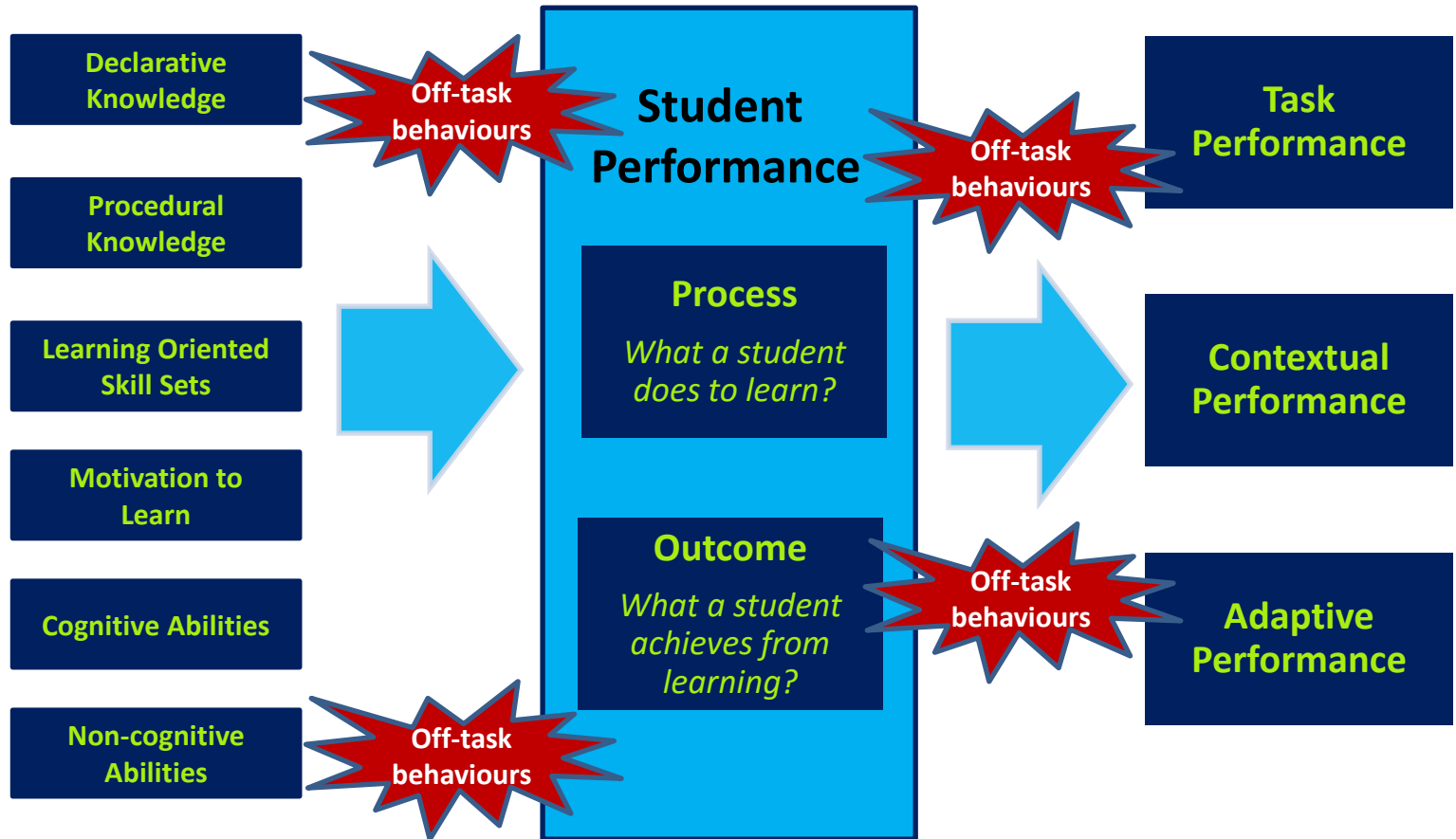
Student Performance

What is student performance?



Student Performance

Determinants of student performance



Student Performance

Off-Task Behaviours



Withdrawal behaviours

Overt disruptive behaviours

Attentional issues

Distractibility

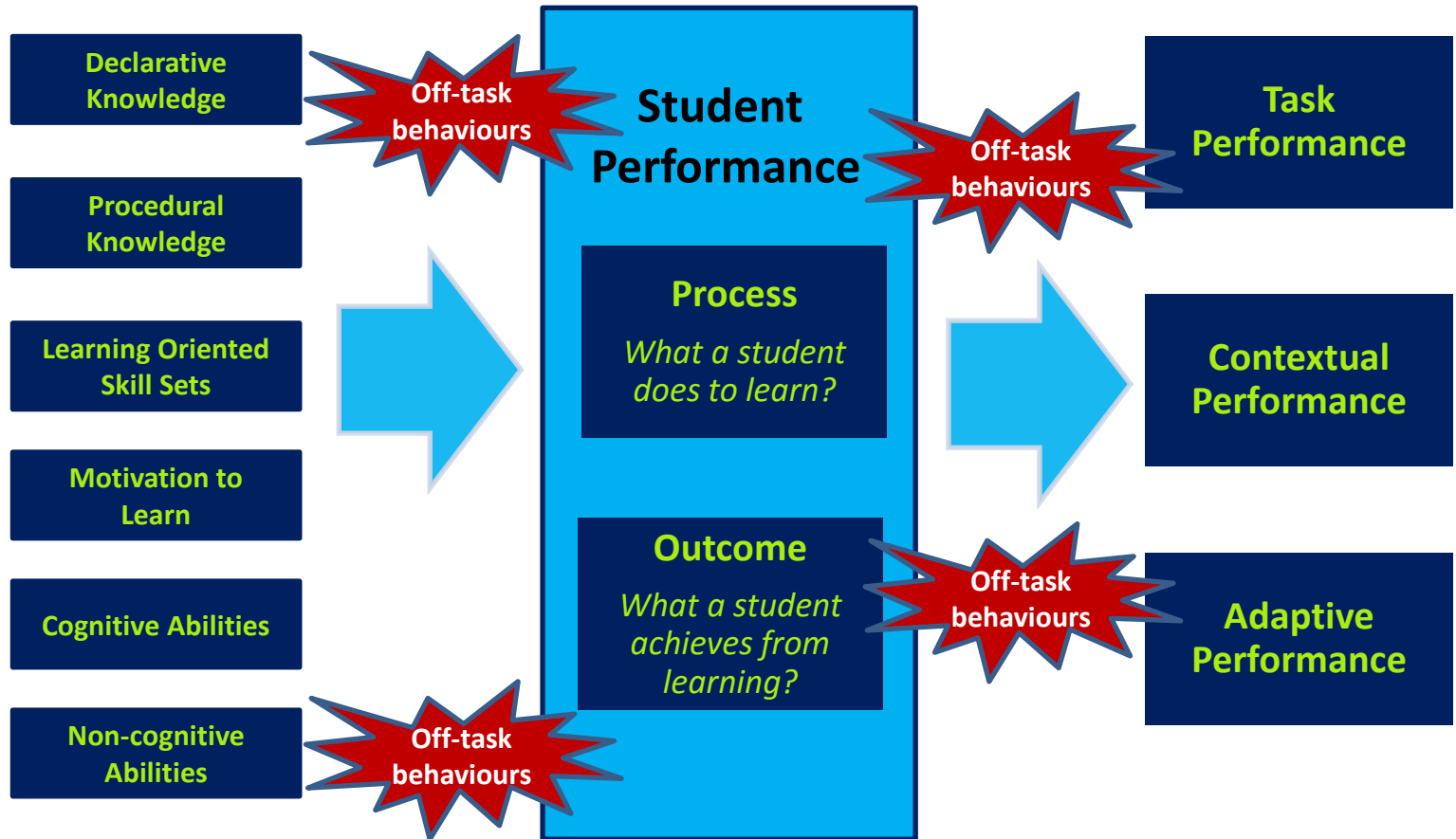
Emotional disruption

Poor motivation



Student Performance

Determinants of student performance



Evidence-based Assessment

Valid tests and use of teaching models

Cognitive Ability Tests

Primary School

Alertness, Spatial Attention, Sustained Attention, Visual Attention, Auditory Attention, Complex Attention, Impulse Control, Spatial Memory

Secondary School

Complex Attention, Spatial Memory, Divided Attention, Visual Memory, Planning, Verbal Memory, Long-Term Memory, Time Management, Impulse Control, Spatial Orientation, Critical Thinking

Non-Cognitive Tests

Confidence

Positive self regard, Self-esteem, Self-efficacy, Sense of accomplishment

Conscientiousness

Goal orientation, Pro-activity and initiative-taking, Planning skills, Diligence, Persistence, Self-control

Resilience

Frustration tolerance, Anxiety management, Patience, Perseverance

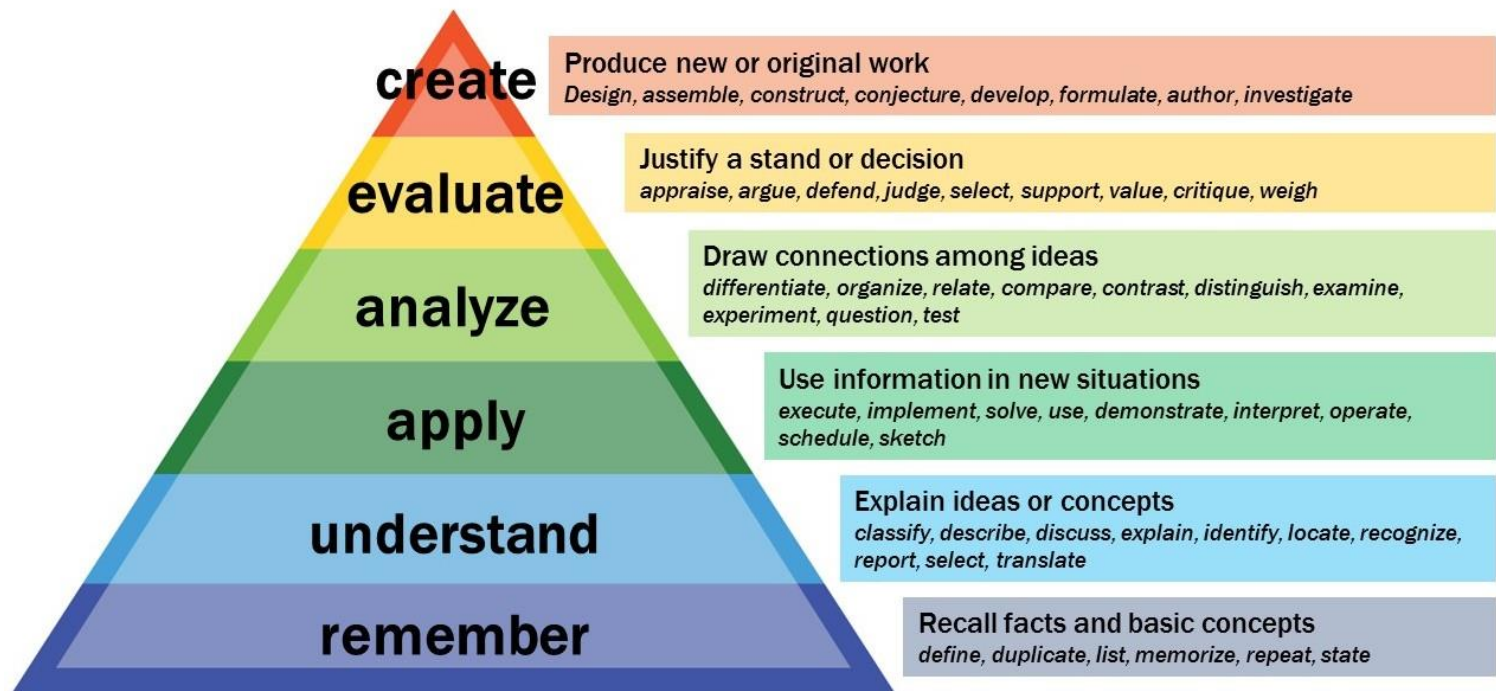
Mindset

Open-mindedness, Optimism, Openness to learning, Openness to feedback, Self-awareness

Evidence-based Assessment

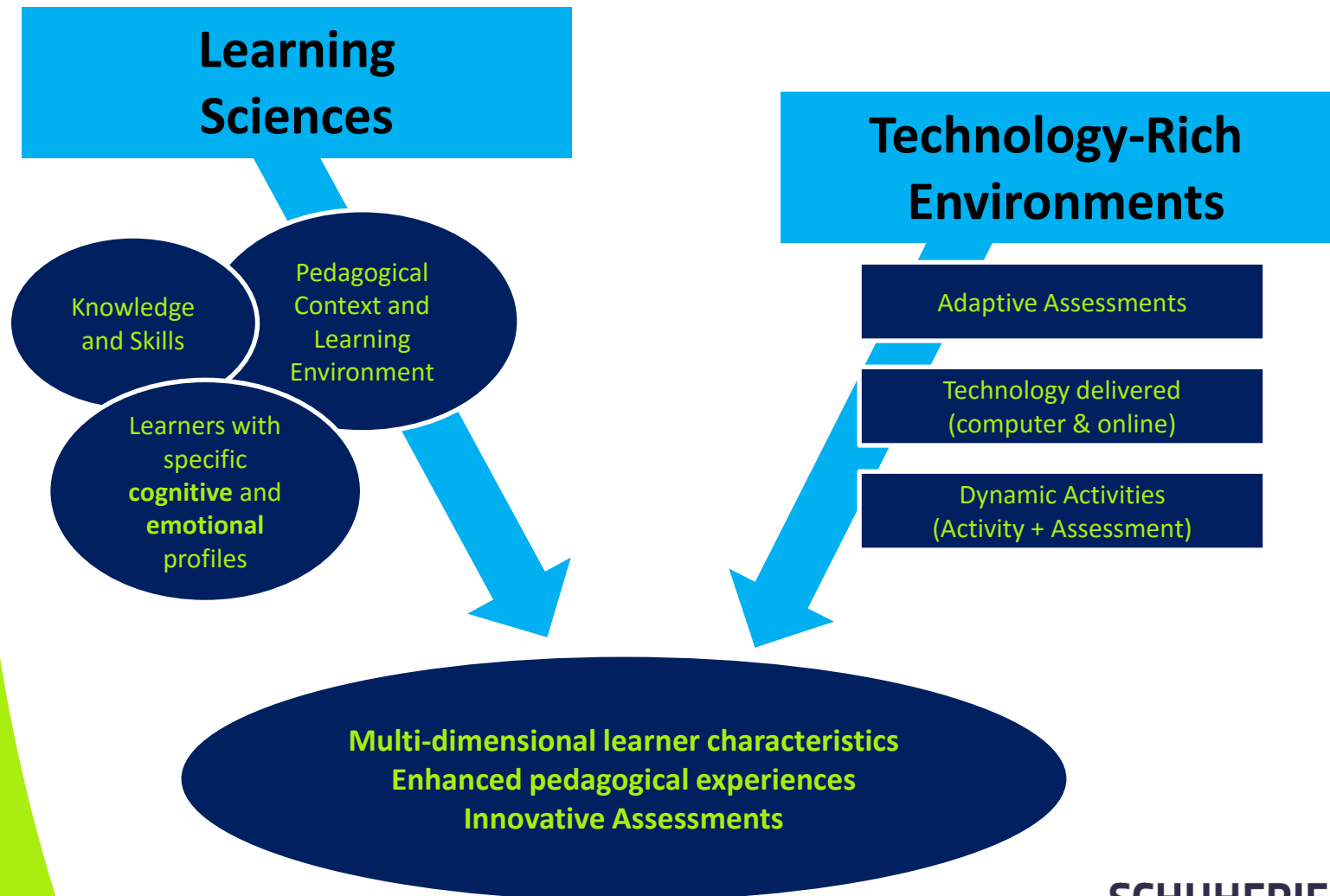
Valid tests and use of teaching models

Bloom's Taxonomy



Looking to the Future

New Perspective on Assessment



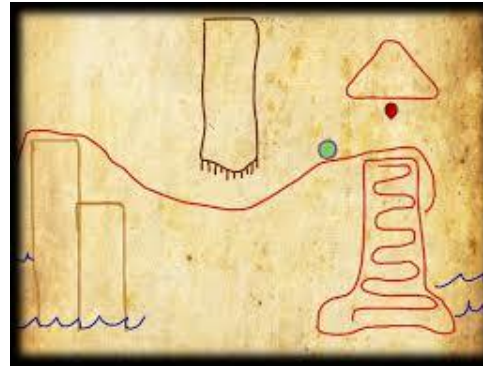
Looking to the Future

Technology Rich Learning and Assessment

Physics Playground

Teaches: Physics

Assesses: Creativity, persistence, organisation, and physics



Crystal Island

Teaches: Microbiology (middle school)

Assesses: Critical thinking, language skills, microbiology

BioWorld

Teaches: Medical diseases

Assesses: Communication, problem solving and knowledge of diseases



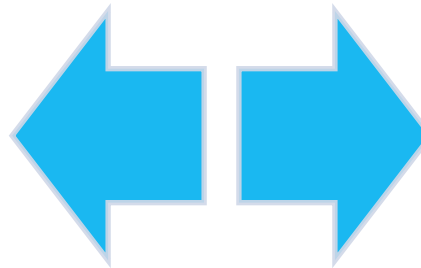
Looking to the Future

Focus of Assessments

Integrating past with the future

Traditional Assessment Items

Narrow
(knowledge & skill)
Paper-based
Multi-choice
Constructed Response



Technology Enhanced Items

Holistic
(knowledge and skill, plus
cognitive, non-cognitive)
Response variation
Interactivity
Immediate feedback
Adaptive

**Student's dynamic (or trending)
strengths and weaknesses**

**KEY TO UNDERSTANDING
Actual Learning Progression**



Looking to the Future

Learning Science
Technology Rich Environment
21st Century Skills

Free Resources

1. Webinars www.neuromite.com.au/webinars

- Professional Development
- NEUROMITE programs

2. NEUROMITE web site www.neuromite.com.au

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