

15th Annual
Hawker Brownlow
**Thinking &
Learning**
Conference

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BRIAN PETE

FRIDAY 18 MAY

Session 1

**Differentiation Revisited:
It's about Knowing Your Kids**

MELBOURNE

BRIAN PETE

Brian comes from a family of educators: college professors, school superintendents, teachers and teachers of teachers. Through his roles as producer of educational videos, publisher of educational resources, and trainer of teachers and leaders, Brian has a rich background in professional development. He brings both a depth of understanding about effective professional development experiences and a technical know-how for practical implementations.



Brian is currently the lead trainer in a major initiative in Singapore for the TILM Ignite Schools. He brings his humour, wit and charm to all of his professional development sessions.

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Hawker Brownlow Education
P.O. Box 580, Moorabbin, Victoria 3189, Australia
Phone: (03) 8558 2444 Fax: (03) 8558 2400
Website: www.hbe.com.au
Email: orders@hbe.com.au

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Brian Pete
Differentiation Revisited:
It's about Knowing Your Kids



We need a good idea
. . . Anybody got a
an idea of how to
come up with a good
idea?

The Three Story Intellect

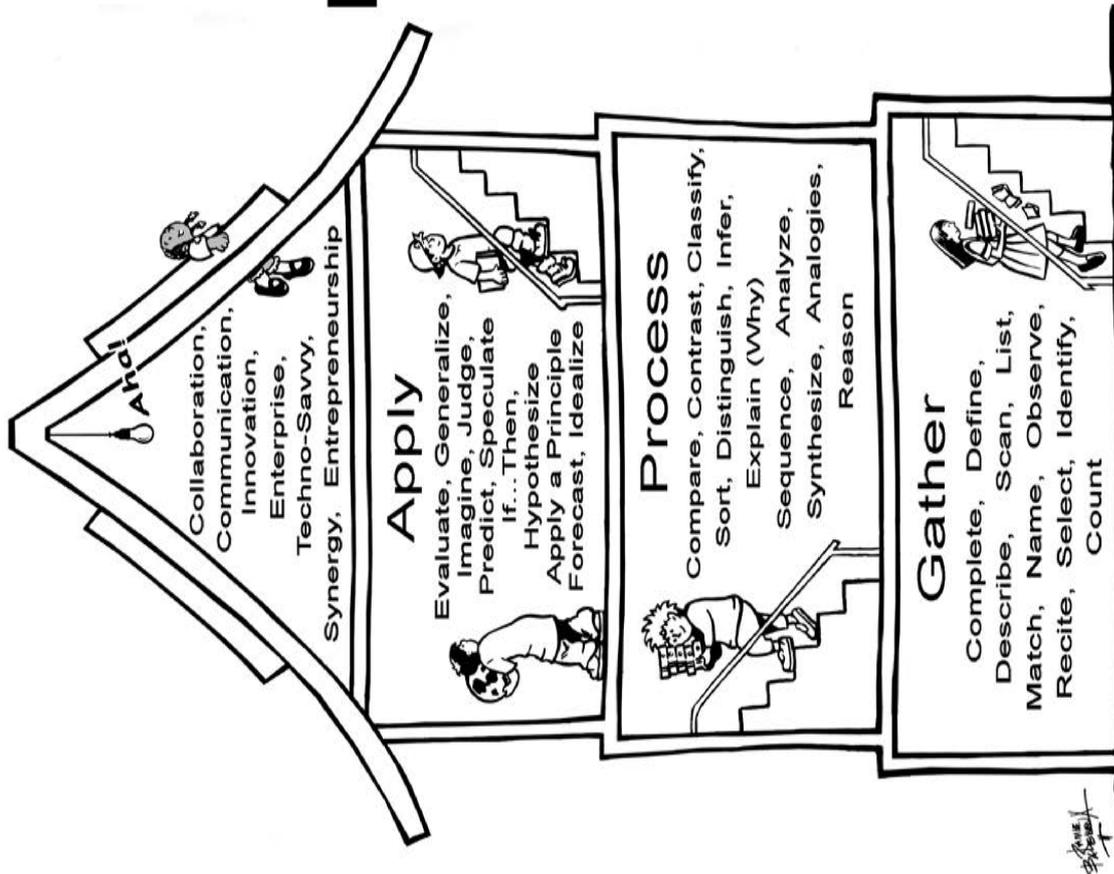
There are one-story intellects, two-story intellects, and three-story intellects with skylights.

All fact collectors who have no aim beyond their facts are one-story minds.

Two-story minds compare, reason, generalize, using the labor of fact collectors as their own.

Three-story minds idealize, imagine, predict, their best illumination comes from above, through the skylight.

Oliver Wendall Holmes
Adapted from the poem. At the Breakfast Table



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How to Teach Thinking Skills Within in the Common Core:

Seven Key Student Proficiencies of the New National Standards
Bellanca, Fogarty and Pete Solution Tree Press -

Unpack the Common Core State Standards (CCSS) in a balanced way, using rich content and rigorous thinking processes. The CCSS thread the skills of literacy and reading, writing, speaking and listening through narrative and informative text. The key to implementing the CCSS with relevancy, is to address them, with explicit teaching of the higher order thinking skills that are embedded in rich subject matter content. (ELA, Science, Math, Social Studies, History, Technology).

The focus is on the high frequency “thinking skills that students need to master. These skills teach kids how to process, analyze, evaluate, produce and present with rich content and relevant thinking. Here is the Syllabus of Seven Thinking Skill Sets and 21 Explicit Thinking Skills that thread across all content areas for student proficiency.

Seven Key Student Proficiencies of the New National Standards:

- Proficiency #1 - Critical Thinking - *Analyze, Evaluate, Problem Solve*
- Proficiency #2 - Creative Thinking - *Generate, Associate, Hypothesize*
- Proficiency #3 - Complex Thinking - *Clarify, Interpret, Determine*
- Proficiency #4 - Comprehensive Thinking - *Understand, Infer, Compare*
- Proficiency #5 - Collaborative Thinking - *Explain, Develop, Decide*
- Proficiency #6 - Communicative Thinking - *Reason, Connect, Represent*
- Proficiency #7 - Cognitive Transfer of Thinking - *Synthesize, Generalize, Apply*

Mapping the Thinking Skills

Based on the formative/summative data for your grade level, department or core team. Rate the top four thinking skills that you think your students can benefit from the most.

What thinking skill would you start with first, etc.?

1st Quarter _____

2nd Quarter _____

3rd Quarter _____

4th Quarter _____

Targeted Thinking Skills

- Analyze
- Evaluate
- Problem Solve
- Generate
- Associate
- Hypothesize
- Clarify
- Interpret
- Determine
- Understand
- Infer
- Compare
- Explain
- Develop
- Decide
- Reason
- Connect
- Represent
- Synthesize
- Generalize
- Apply

College and Career Ready

Specifically, College & Career Ready means, in the words of the CCSS, that students demonstrate independence.

Students can, without significant scaffolding, comprehend and evaluate complex texts across a range of types and disciplines, and they can construct effective arguments and convey intricate or multifaceted information. Likewise, students are able independently to discern a speaker's key points, request clarification, and ask relevant questions. They build on others' ideas, articulate their own ideas, and confirm they have been understood. Without prompting, they demonstrate command of standard English and acquire and use a wide-ranging vocabulary. More broadly, they become self-directed learners, effectively seeking out and using resources to assist them, including teachers, peers, and print and digital reference materials.

What Does It Look Like in the Workplace?

To succeed in the 21st Century, in college and in careers, to be self-reliant, self-directed and independent, students need to be able to do the kind of macro-skills noted explicitly and implicitly in the new national standards. Describe Specifics!

- Solve problems
- Manage oneself
- Adapt to change
- Analyze/conceptualize
- Reflect on /improve performance
- Communicate
- Work in teams
- Create / innovate / critique
- Engage in learning throughout life

Notes:

Differentiation Curriculum, Instruction and Assessment

The Rationale for Differentiation . . . Brain Science

Defining Differentiation: “Change doesn’t mean saying it louder and slower. . .”

Research Part I:

Differentiation – Carol Ann Tomlinson

Change the Content		
Complexity Topic: Magnets Concrete - <i>Hands on</i> Representational – <i>Drawing</i> Abstract – <i>Reading</i>	Resources Topic: Elections <i>Non-Fictional Text</i> <i>Biography</i> <i>Website / News Article</i> <i>Political Cartoon</i> <i>Blog / Film/TV/DVD</i>	Environment Topic: Simple Machines <i>Read about Machines</i> <i>Go and do . . . Build Invention</i> <i>Work with Community Partner</i>
Change the Process:		
Direct Instruction Topic: Metric System <i>Anticipatory Set (riddle, cartoon, guest, video, interview, poem)</i> <i>Input: (lecture, problem solving, case study, debate, field trip)</i> <i>Practice: (focused/brief; intense/longer; homework)</i>	Cooperative Learning Topic: Expository Writing <i>Pairs . . . TTYPA Think/Pair/Share</i> <i>Trios . . . Partners/Observers</i> <i>Quads . . . Mixed Ability; Roles & Tasks</i>	Modes of Inquiry Topic: Stem Cell Research <i>PBL . . . You are . . . You will</i> <i>Case Studies . . . Moral Dilemmas</i> <i>Projects . . . Product/Performances</i>
Change the Product		
Entry Points Topic: Geography <i>Verbal - Report</i> <i>Visual - Map</i> <i>Interpersonal - Interview</i> <i>Intrapersonal – Journal Entry</i> <i>Mathematical – Data Chart</i> <i>Musical - Song</i> <i>Naturalist – Geological Surveys</i> <i>Bodily – Field Trip</i>	Expressive Modes Topic: Novel Study <i>Word Smart - Speech</i> <i>Picture Smart – Graphic Org.</i> <i>People Smart - Debate</i> <i>Self Smart - Reflection</i> <i>Number Smart – Time Line</i> <i>Music Smart - Rap</i> <i>Nature Smart – Man vs. Nature</i> <i>Body Smart – Role Play</i>	Accountability Topic: Cycles: Ending at the Start <i>Traditional . . . Grades/Rankings</i> <i>Portfolio . . . Work/Showcase</i> <i>Performance . . . Presentation/Product</i>

Research Part II:

Differentiation – Carol Ann Tomlinson

Identify Learner Needs

Readiness - *Academic Achievement / Ability / Effort*

Interests – *Student Hobbies, Activities, “Likes & Dislikes”, Pastimes*

Learning Profile – *Strengths & Weaknesses, Learning Preferences*

Strategies of Diverse Learners

Developing Learner

Identify and Make up Gaps
 Direct Instruction
 Structured Activities
 Concrete Activities
 Fewer Steps
 Close to Experience
 Simpler Reading
 Deliberate Pace

English Learner

Cooperative Buddy
 Translation Partner
 Visuals; Graphic Organizers
 Pictures, Drawings
 Hands-on; Bodily Kinesthetic
 Auditory Cues; Tapes
 Videotapes; DVDs
 Internet Activities / Self-correcting

Advanced Learner

Skip Practice of Mastered Material
 Complex Activity
 Open-ended Activity
 Abstract Activity
 Multifaceted Activity
 Advanced Reading
 Activity with Depth
 Compact Information

Special Needs Learner

Individual Education Plan
 Classroom Aide
 Peer Tutor; Cooperative Partner
 Specialists, Resource Teachers
 Software Feedback Tools
 Classroom Environment
 Customized Furniture
 Parent Involvement
 Facilities Modifications

Getting Started / Moving Along

Lo-Prep Differentiation

Choice of Materials
 Homework Options
 Flexible Seating
 Jigsaw
 Questioning Strategies
 Cooperative Learning
 Product Options
 Assessment Options

High Prep Differentiation

Stations
 Centers
 Choice boards
 Entry points
 Tiered activities
 Learning contracts
 Simulations
 Rubrics

FAQ - Differentiation

1. How do you change content when you can't change the standards?
2. How do you change the assignment... keep dignity for the student?
3. How do you assess various assignments for the high school?
4. How do you prepare all students for the test at their level?
5. How do you do all this active engaged learning and keep pace?
6. How do you do cooperative learning in open concept classrooms?
7. How do you write a lesson for every kid?
8. How do you differentiate for 120-150 students in HS setting?
9. How do teachers co-teach effectively with no time to plan together?
10. How do teachers differentiate / address standards at the same time?

Howard Gardner's Theory of Multiple Intelligences

Verbal Linguistic intelligence involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. This intelligence includes the ability to effectively use language to express oneself rhetorically or poetically; and language as a means to remember information.

Visual Spatial intelligence involves the potential to recognize and use the patterns of wide space and more confined areas.

Interpersonal intelligence is concerned with the capacity to understand the intentions, motivations and desires of other people. It allows people to work effectively with others. Educators, salespeople, religious and political leaders and counselors all need a well-developed interpersonal intelligence.

Intrapersonal intelligence entails the capacity to understand oneself, to appreciate one's feelings, fears and motivations. It involves having an effective working model of ourselves, and to be able to use such information to regulate our lives.

Mathematical-Logical intelligence consists of the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically. In Howard Gardner's words, it entails the ability to detect patterns, reason deductively and think logically. This intelligence is most often associated with scientific and mathematical thinking.

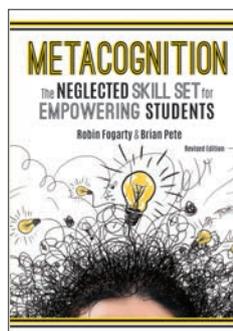
Musical Rhythmic intelligence involves skill in the performance, composition, and appreciation of musical patterns. It encompasses the capacity to recognize and compose musical pitches, tones, and rhythms.

Naturalist intelligence enables human beings to recognize, categorize and draw upon certain features of the environment. It 'combines a description of the core ability with a characterization of the role that many cultures value.

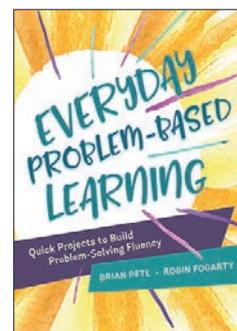
Bodily-kinesthetic intelligence entails the potential of using one's whole body or parts of the body to solve problems. It is the ability to use mental abilities to coordinate bodily movements.

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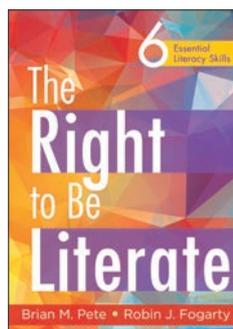
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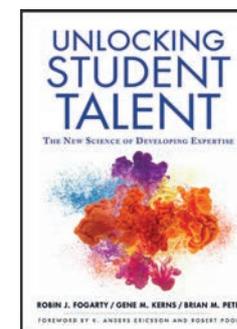
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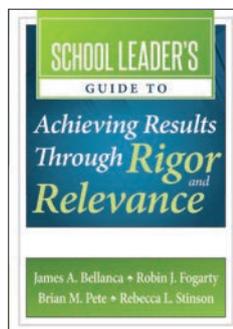
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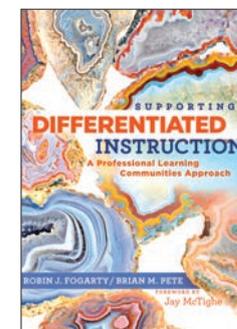
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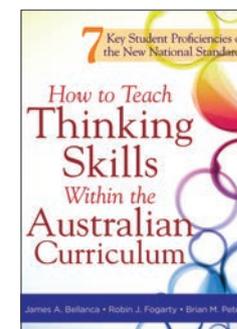
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