Curriculum Differentiation:

The Maker Model

What is a Differentiated Curriculum?

A Differentiated Curriculum is like a game of "Boot – Bot" soccer.

What is a Differentiated Curriculum?

Differentiated Curriculum refers to teaching that is adapted to take into account the individual differences and needs of students in any one classroom.

(Tracey Riley, 2006)

Big Questions????

What are the conditions for ICT to be of value in the teaching and learning process of all / gifted students?

Big Questions????

How do we play with the idea that ICT is a potentially powerful tool for introducing cognitive challenge through explorations of new ways to manipulate information, enhance deep thinking, and facilitate connections between like-minded students?

What does Differentiation look like using ICT?

The Maker Model

June Maker - 1982

Differentiation requires modification of four primary areas of curriculum development:

- Content
- Process
- Product
- Learning Environment

Differentiating Content

Remove the ceiling on what is learned, and use the student's abilities to build a richer, more diverse and efficiently organised knowledge base.

Differentiating Content

Concepts or Big Ideas

More complex – different access to content using a range of ICT tools just in time……….

More varied, abstract, complex

Organised differently

Differentiating Content

 Needs to be taught at a faster pace with less repetition and possibly from a different starting point. Curriculum Compacting.

Differentiating Content

Content goals should include outcomes adapted or changed to suit the established knowledge base of the student/s.

Differentiating Process

Process is the way in which the content is presented to students:

– Questions

– Learning activities

Process can be differentiated by:

– Modifying the level of thinking (ie. Bloom's taxonomy)

– Changing the pace

– Changing the approach

Differentiating Process

Processing skills help students manipulate knowledge in meaningful ways.

Research has shown that gifted students benefit significantly from higher order thinking training – Habits of Mind.

Differentiating Process

Careful preparation of questions is essential.

Adopt a thinking model eg, deBono's Six Hats, Habits of Mind and use repeatedly to allow students to internalise it.

Product

Product is:
- What the students produce
- NOT a summation of content

Should involve:
- Higher-level reasoning skills
  Analysing
  Evaluating
  Creating

Differentiating Product

Gifted students require high but specific expectations and depth with product:

- Real world problems and products

- A real audience

- Realistic corrective feedback/feed forward

Differentiating Product

Variety of production requirements and alternatives.

Open-ended product alternatives that encourage creative responses.

A reason for sharing.

Learning Environment

Changes should also be made to the learning environment if successful modifications are to be made to the *content*, *process* and *product* of curriculum.

Learning Environment

Group able children together part of the time so they have the freedom to work at their own level (without modification).

Learning Environment

Students should be given authentic projects- inside and outside classroom with real audiences and ADDED VALUE.

NZ Research Jeanette Christensen

Learning Environment

They should be provided with a structured learning environment with open-ended tasks. Research shows that ability grouping for specific instruction is effective for all students including gifted students but only if the curriculum has been differentiated

It should be challenging!

Children should be introduced to materials and activities which would be beyond the capabilities of their age-peers of average ability.

Big Questions???

Teachers should ask:

- **Would** all students want to be involved in such ICT learning experiences?
- **Could** all students participate in such ICT learning experiences?

The NZ Curriculum

An exciting time……..
Key Competencies – Thinking

Learning Areas – Future Focus
sustainability, citizenship, enterprise
globalistaion

Why Differentiate?

All students should be given an opportunity to develop to their full potential.

Relevant ICT tasks, infused with thinking strategies based on authentic inquiry based learning.

Online resources

- Differentiating Instruction www.ascd.org/pdi/demo/diffinstr/differentiated1.html (accessed 1 April 2004)

- Elements Integrated into Curricula http://www.edu.gov.mb.ca/metks4/curricul/k-s4curr/elements.html (accessed 1 April 2004)

- Partners in Enrichment: Preparing teachers for multiple classrooms www.cec.sped.org/bk/martec.html (accessed 1 April 2004)

- Selected ERIC Abstracts on *Differentiated Instruction* http://www.ascd.org/educationnews/eric/differinstructionabs.html (accessed 1 April 2004)