

# We Made the Change – Can You?

A Narrative of Experiences  
in Programme Design



# Researchers



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Te Kura o Waikato

# Explanatory Information

- Tamariki is the Maori word for children
- Post graduate students are registered nurses with the majority working full time in practice
- Time and geographical constraints pose challenges for both students and educational providers



# Advanced Assessment and Clinical Reasoning – Children/Tamariki

This course teaches 30 credits of a 120 credit  
Post Graduate Diploma

## **It includes:**

- 2 x 3 day block sessions
- 60 hours of online study
- 60 hours clinical skill development
- 132 hours of independent learning



# Content Delivery

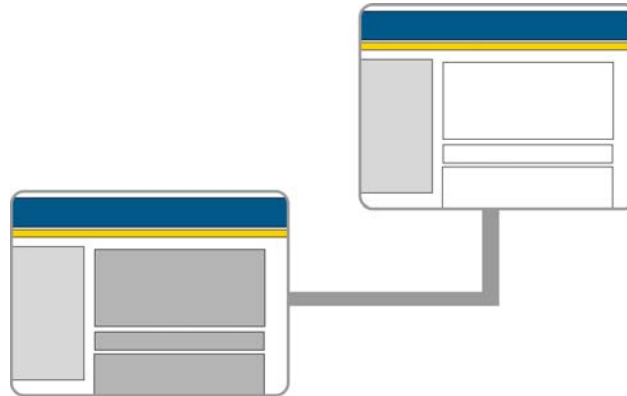
The initial course design included:

- Extensive learning objectives
- Delivery of content
- A heavy work load
- Students = passive receivers of information



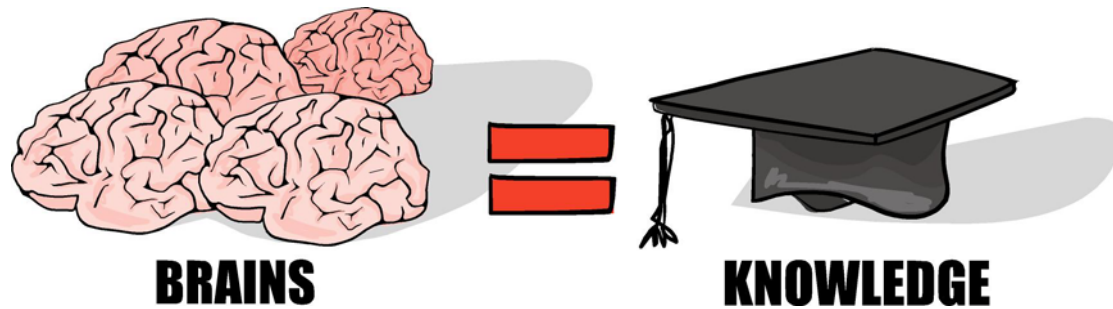
# Online teaching

The lecturers agree that the preparation and curriculum development of an online course will require an adaptation of the lecturer's philosophy of teaching and learning.



# Theory Based Changes

After much discussion we decided that it required a change of approach. The changes we made are based on Vygotsky's theory of social constructivism.



# Learner Capabilities

Weigel (2005) advocates LMS that utilize a particular approach to learning, which is based on what he terms “learner capabilities”.

- a critical thinking capability
- a self-confidence capability
- a peer-learning capability, and
- a knowledge management capability





# Student Preparation

## Three hour *Introduction to Moodle*

- Theory of social constructivism introduced
- Hands-on experience of interactive discussions
- Student to student forum
- Technological support
- Hand-out on “What is an eLearner?”



# Integrating Hard knowledge & Soft knowledge (Neumann, 2001)

## Science

**Hard knowledge = learning facts**

hard knowledge covered  
scientific reasoning skills developed

## Health

**Soft knowledge = developing critical thinking skills**

clinical reasoning related to children/tamariki  
metacognitive skills which relate to critical  
reasoning and clinical reasoning



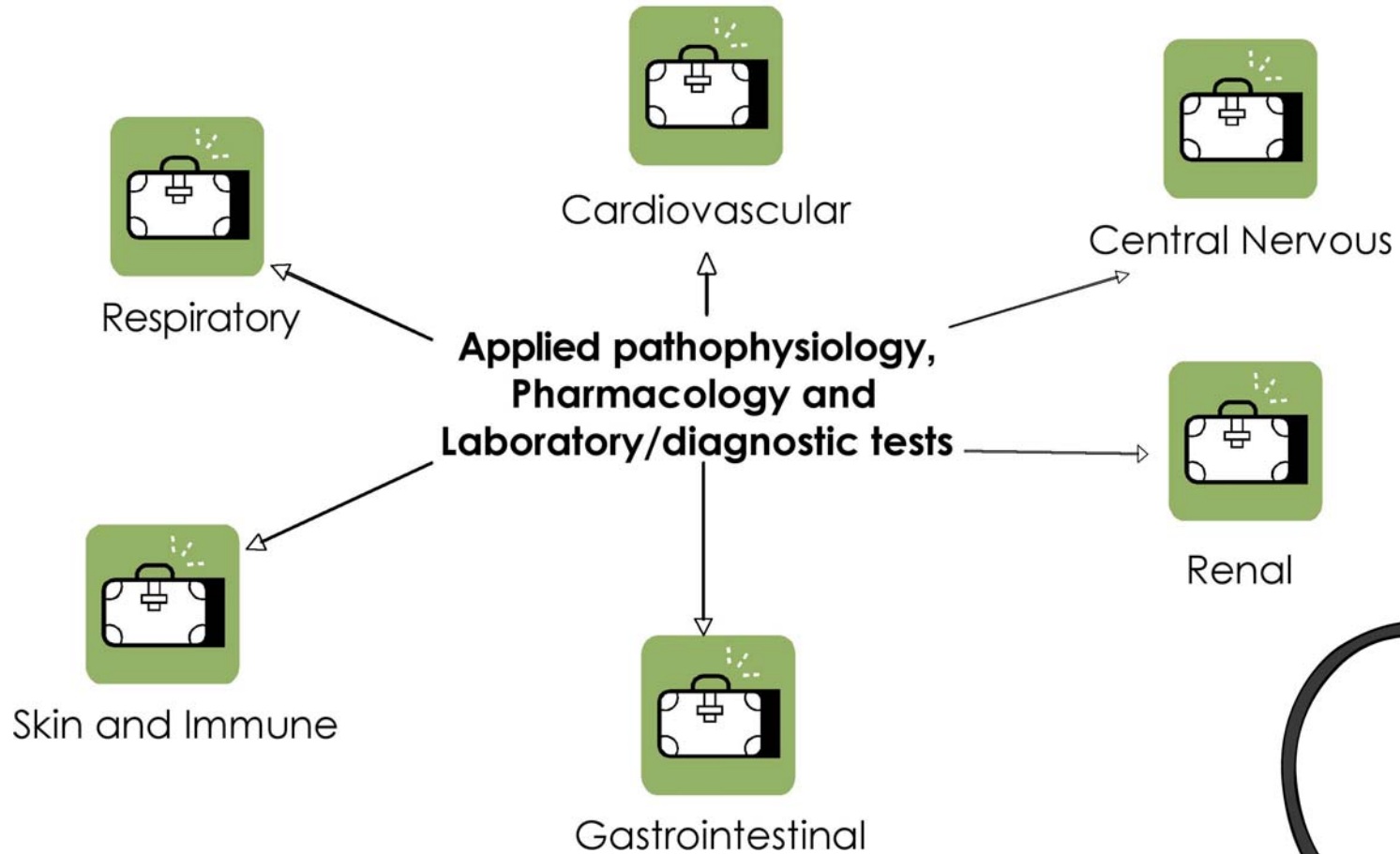
# Course Evolution

## A case study for each body system:

- linked the 'hard' and 'soft' information with analytical asynchronous discussions developing critical thinking.
- enabled development of knowledge management around pathophysiology, clinical reasoning, differential diagnosis and pharmacological interventions.



# Body Systems



# Evolutionary Process

Topic	Pathophysiology	Diagnostics	Clinical reason	Pharmacology
CVS	Matching	Discuss	Practice	Research
Resp.	Discuss	Reflective question	Practice	Cross-word
CNS				

# Evolutionary Process

The shift in pedagogy from delivery to process, challenged:

- traditional styles of delivery
- ingrained attitudes to classroom teaching
- work load
- student behaviour



# Example of a Discussion Topic

Explain why antiemetic and antidiarrheal drugs should not be used in infants and children.



# Example of student posting

Many antidiarrheal drugs act by decreasing intestinal motility. In acute infectious diarrhoea this can cause delay in the clearance of the infectious organism which increases the risk of systemic infection as well as local complications such as an ileus or toxic megacolon.

Antidiarrheals may also mask the clinical picture as the diarrhoea may decrease but there could still be fluid losses and dehydration occurring.

Antiemetics are not recommended as there is little research to show that there is any benefit that would out way the potential side effects. Potential side effects of some antiemetics, such as extrapyramidal effects, are more common in children and adults under 20years of age. Other potential side effects of antiemetics are gastrointestinal disturbances such as [diarrhoea](#) or constipation!!

## References

Hockenberry, M.J. (2003). *Wong's Nursing Care of Infants and Children*. (7th ed.). St.Louis: Mosby, Inc.





# Example of Lecturer Response

Hi Karen

Thanks for this concise posting in the use of antidiarrheals and antiemetic use with children. You suggest that children and young adults may be more susceptible to "extrapyramidal effects", I wonder if you or anybody else can share specifically what we as nurses should be looking for in such a situation.



# Skill Development

- Differential diagnosis activities developed critical thinking skills
- Therapeutic plan development with emphasis on the relevant pharmacology treatment
- Learning capability developed through peer discussion





# Reflections on Discussion Forums

- Management not as time consuming as initially thought
- Realisation that it is not necessary to respond to every posting
- Lecturers spent two hours x twice a week jointly responding to discussion postings
- Regular checking may be necessary to ensure the discussions are 'ontrack'



# Evaluation of the Course

- Informal peer review sessions during the course
- Standard Wintec evaluation of lecturer, course and programme.



# Online Study

**We believe the students:**

- Confidence increased
- Improved in their online discussion skills
- Successfully demonstrated critical thinking in the peer supported environment



# Evaluation Results

- Asynchronous discussions – later contributors found that their points had already been flagged.
- The volume of work was still high and extra time was allowed.
- All seventeen students successfully completed.



# Future Work

- Analysis of discussion forums
- Work load reduction
- Changes in the summative assessment
- Increased preparation for discussion participation





# The Challenge

“We made the change – can you?”

Thank you and farewell from  
Helen, Gudrun and Bev

