

# Use of Wikis and Blogs to promote collaborative learning in an Orthopaedic Manipulative Therapy MSc Programme

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# Introduction

Two year part time MSc OMT Programme at UCD

## Learning Issues:

- Collaboration and knowledge sharing outside classroom
- Reflection on their own practice and development of clinical reasoning
- Integration of programme learning (eg. evidence review) into clinical practice
- Driving deeper learning

# Introduction

Two recent educational innovations

(i) Blog (ii) Wiki

- Web log

Discussion / informational site published on www

Discrete entries 'posts'

- Single or multi author
- Encourages sharing learning experiences in real time
- Integration of groups of learners





Wiki is a web communication and collaboration tool

Used to engage students in group learning within a collaborative environment

Involves learners in their own construction of knowledge

Free cross platform editing and redistribution of original content

Jonassen DH, Peck KL, Wilson BG (1999)



# Pedagogy

- Sound pedagogy underlying curricular design choices (Rowe, 2012)
- Collaborative learning enhances learning through increasing student engagement (Schaffert et al, 2006)
- Educational environments in which students can learn to be collaborative and creative (Bruns and Humphreys, 2005)
- Wikis and group blogs support the collaborative and social constructivist learning paradigms (Parker and Chao, 2007; Bruns & Humphreys, 2005)
- User-created content software encourages deeper engagement with learning through the act of authoring - awareness of an audience encourages thoughtful writing construction (Jacobs, 2003)



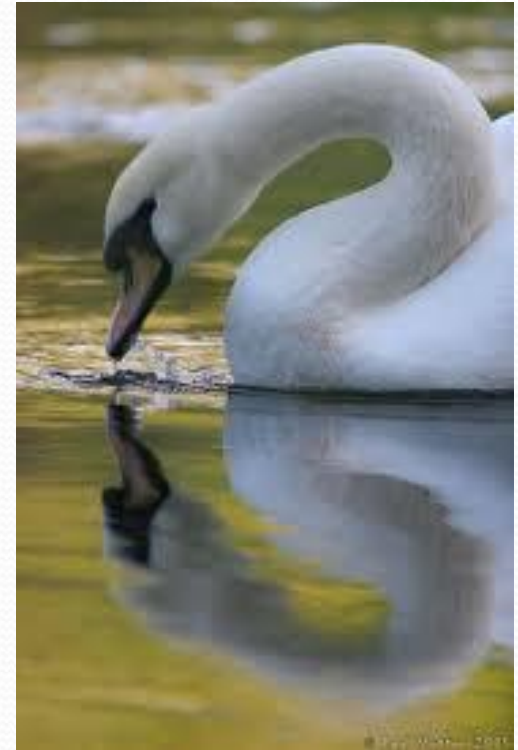
# BLOG – Reflection

- Reflection facilitates the integration of theory with practice and promotes the development of students' clinical reasoning processes

(Ladyskewsky and Gardner 2008)

- Reflection promotes changes to clinical practice in the light of learning gained from personal experiences

(Jasper 2007)



# Blog

The use of blogging to support development of reflective practice and clinical reasoning

Promote collaborative learning

Gain insight into the groups clinical reasoning processes





# Methods

- Blog during MSc NMP students' 3 week full time clinical placement
- Preparation
  - Reflective practice 1 hour lecture
  - Written Guidelines
  - Focus on specific learning experiences and development of clinical reasoning
  - Min 1 post + 1 comment/ week
  - Specific assessment criteria





# Methods

- Qualitative analyses of the Blog content to identify main themes
- Student evaluation via survey



# Qualitative Analysis

## Subjective Examination

Questions with a purpose

‘Use of questions with a purpose, and interpreting the answers . It will be what raises us all to MSc levels of diagnostic and therapeutic skills”

‘I realized that a lot of the reason I go around in circles is that I don’t have a specific question in my mind. I need to assimilate and process the information as I do the SE’



# Physical Examination

## Prioritisation and focus

‘My main problem was my lack of prioritization. I attempted a large number of tests and ended up confusing myself. Focus, specificity and prioritisation are crucial to forming a working hypothesis’

‘Focused PE cuts unnecessary testing and aggravating the patient or increasing irritability’

## What is the purpose of testing?

‘I’ve been using my favorite tests for years without thinking why I’m using them. Now I know what I’m actually looking for in each test’

‘PE should be more tailored and specific to test the main hypotheses. Why am I doing this test?’

‘I have learned another key question from the tutor to ask myself is ‘what do you expect to change’, and link this with the SE and PE’



# Treatment

## Specificity and justification

‘My prior thinking was to treat every level... This week I have been encouraged to treat only 1 level using 1 technique and REASSESS. I didn’t believe this could ever be effective...until now’

‘The tutors challenged me to justify every treatment technique I choose and encouraged me to think of ten more techniques that would achieve the same outcome’

# Clinical Reasoning

## Assumptions and interpretations

'Don't assume! Have clear evidence to support or negate your hypotheses. If it walks talks and looks like a duck but has a few white feathers don't assume it's a duck. It could be a swan!'

'Sometimes even when you have all the information it can be interpreted incorrectly'



# Pain

## Pain and manual therapy

‘I realized I was resistant to accepting that central sensitization could be the driving factor.. as a manual therapist my automatic response was to get my hands on the patient..’

‘.. her pain mechanisms were for cognitive affective and central sensitization. I realized manual therapy was probably not the best course of action’

‘I have learned that pain education plays a key role in treatment. We practice our handling skills for hours, but how do we practice pain education?’”

# Students' evaluation

- Blog a useful means to communicate with classmates when on placement  
100% strongly agree/agree
- Participating in group discussion enhanced my learning  
100% agree
- Facilitated learning from real clinical experiences  
80% agree/ strongly agree, 20% not sure
- Sharing useful learning resources  
80% agree, 20% not sure
- Overall satisfaction with blog as learning tool  
100% strongly agree/ agree



# Discussion

Good student engagement with learning tool

Group dialogue

Facilitation collaborative learning practices in part-time students situated in different locations

Themes identified may help to guide / aid clinical teaching

# Wiki

## Wiki Group Assignment (2 x 6 students)

To produce a Wiki regarding MSK topic:

- which will act as a resource for peers/ MSK physiotherapy practitioners

Online Platform [wikispaces.com](https://www.wikispaces.com)

## Assessment

Assessment rubric co-created-to help students internalise what's expected of them

Peer Assessment



# Wikis

- SIJ/Lateral Hips Pain
- Good links to evidence based resources
- More novel materials
- Good learning resource
- How much collaboration or worked on separate sections? Integration could be better
- Differential diagnosis-need more re supporting/negating factors rather than just lists of signs and symptoms

# Questionnaire Survey

- Week 1 and Week 12

To explore student experience using wikis for first time

- Series open ended questions
- Data transcribed and analysed for common themes





# Results-Week One- Feb 16

**Learning:** 'good idea, could learn more, good for knowledge sharing, group work helpful, may use in future'

**Anxiety re learning new technology/workload:** 'don't know what a wiki is'; Blog easier to manage,' 'why not group presentation on power point'?

'Worried about workload'

**Group work:** challenges-prefer individual

**Topic concern:** 'don't see much SIJ'

Lateral hip pain more prevalent! Choose own topic



# Results: Week 12-April 16

- **Time demands:** ‘Too time consuming’, ‘learning wiki process not helpful’
- **Learning Resource:** ‘yes’ 100%, ‘other class wiki useful’ ‘makes you read more/learn more’, ‘looked at research more’, ‘encouraged more in depth research’
- **Group Learning:** ‘ good for team building’ , ‘knowledge sharing good’



# Wikis versus Blogs

## **Blogs**

- 'more straight forward',
- 'Blog easier for sharing'
- 'Blogs useful for reflection'

## **Wikis**

- 'layout easy to navigate and information in easy to use format'
- 'Better for learning than blog but more work'
- 'Group work beneficial'

# Discussion

- Lack of familiarity with social media as learning tool/Workload introduce earlier, even greater orientation, more classtime
- Working towards end product-need to value process encourage collaboration rather than delegation of sections
- Value of learning on line collaborative skills/ virtual community of practice  
Add to module / programme learning objectives and outcomes
- Drive desired synthesis of evidence more prompts, template for differential diagnosis, greater academic online presence



# Discussion

- Enhancement of learning of clinically related knowledge and skills
- Facilitation of Group dialogue and collaborative learning practices in part-time students situated in different locations
  - need to get accustomed to more online communication
  - collaboration not automatic

# Conclusion

- Wikis and Blogs useful in enhancing learning with each having unique benefits
- Positive for collaboration outside classroom but 'online' requires facilitation
- Need to plan carefully- orientation, support, timing
- In order to drive deep learning –online discussion, learning criteria, learning prompts, academic online presence