



Improving student experience of virtual teamwork in an online postgraduate coursework program in Veterinary Science

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Background

- Postgraduate program in Veterinary Public Health Management (VPHMgt)
- Articulated, distance postgraduate program, first offered in 2003
- Students located across Australia and around the world



Why ask these people to work in virtual teams?

- Management of animal and public health issues needs to be conducted across space, time, organisations and disciplines
- Graduate Attributes state that VPHMgt graduates will *Work effectively with others on an individual basis and in multidisciplinary team situations*



What sort of teams they work in

- Every unit of study contains a group project worth up to 40% of total unit mark
- Students are allocated to different groups for each unit
- Work asynchronously in Discussions in WebCT, increasingly supplemented by live chat
- They are typically activities that:
 - are authentic tasks which would typically be a team task in the workplace
 - require students to work towards a defined outcome, usually containing a problem to be solved, requiring a diverse range of knowledge, skills, research and experience



Differences between virtual and face to face teams

- Time issues
 - Time lag (asynchronicity)
 - Time zones (global classroom)
 - Time and task management (differences in personal styles, priorities and expectations are less visible)
 - Lower levels of control over and knowledge of group members
 - Communication towards developing a product under pressure without non-verbal cues
- All the typical characteristics of asynchronous online discussion are intensified in virtual group work*



Problems we have observed

Inception	<ul style="list-style-type: none"> • Starting the task before ensuring all team members are clear on what needs to be done
Role Allocation	<ul style="list-style-type: none"> • Role confusion in teams/ lack of clarity of responsibilities • Reluctance by some to take leadership role in group
Expectations	<ul style="list-style-type: none"> • Disappearing team members • Some members having higher expectations of regularity of interaction
Problem Solving	<ul style="list-style-type: none"> • Individuals' different levels of commitment not made explicit • Assumptions/ values not made explicit • Slowness of teams in identifying emerging problems
Decision Making	<ul style="list-style-type: none"> • Reaching consensus took too long • Many students shy of taking the lead
Execution	<ul style="list-style-type: none"> • Problems with document version control • Focus on task to the exclusion of 'people'
Time Management	<ul style="list-style-type: none"> • Inefficient task processes • Time wasted on inefficient admin tasks • Different perspectives. Likng to be organised well in advance vs. working at the last minute
Conflict Resolution	<ul style="list-style-type: none"> • Most conflict at stage of finalising product • Suppressed emotional responses • Cultural misunderstandings
Net-Etiquette	<ul style="list-style-type: none"> • A few students being critical before fully understanding the issue

Inception Example:
 Student A likes to be prepared early and posts a draft of one section of the assignment without any prior discussion with the group.
 This forms the basis for other students' substantial contributions.
 Two weeks later, student B points out that the approach will not address assessment criteria.

Conflict Example:
 Student X feels strongly that their argument in one section of an assignment is important. Anyway, for the last 3 weeks no one seems to have commented on their contribution.
 Student Y feels strongly that they have frequently pointed out a flaw in student X's argument over the last 3 weeks but feels their opinion is being ignored.
 Student Y, nervous about the approaching deadline, calls on students W and Z to support leaving out a section that student X has contributed.
 Student X, withdraws from the process and lets the group know they feel they have nothing of value to contribute.



What did the students think?

- A questionnaire was used to identify student perception of virtual group work, both positive and negative
- To assess what students say about their experiences in the following stages of group work:
 - Inception
 - Role allocation
 - Decision making
 - Problem Solving
 - Conflict resolution
 - Net-etiquette
 - Execution
 - Time management
- First year students completed identical questionnaires in 2003 and 2004 (and just completed for 2005).
- 2003 Results formed the basis for preparation for virtual group work with the 2004 cohort.



Preparation for virtual group work

- Preparation at 2003 orientation residential
 - Team building activities at first residential
 - Group assignment assessment criteria related to team effectiveness were specified and explained
 - WebCT training and netiquette discussion
 - Plus** Student online forum was established for socialisation mid-2003
- Preparation at 2004 orientation residential included this *and*:
 - Sessions focused on working in virtual teams
 - Presentation by educational designer on working in virtual teams
 - A group activity brain storming strategies for dealing with common problems in virtual group work
 - A sample teamwork agreement which student groups could choose to use was presented and discussed
 - Plus** more online socialisation was introduced via the student online forum from the start of 2004



Student perceptions

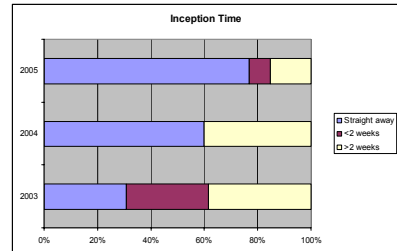
2003 – students given little preparation for online group work

- Inception a problem: 64% said it took up to or more than 2 weeks to understand the task
- 79% reported conflict resolution to be effective or very effective

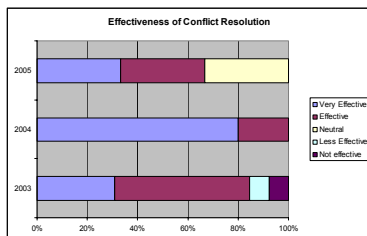
2004 – students given more preparation for online group work

- Inception improved: 60% said their group understood the task straight away
- Conflict resolution identified by students as a strength of the cohort – 100% reported effective or very effective

Comparison of 3 Cohorts - *Inception*



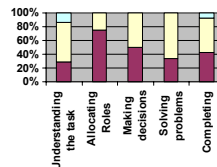
Comparison of 3 Cohorts – *Conflict resolution*



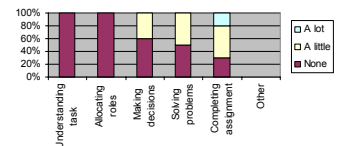
*In 2005, neutral was indicated by those who had not experienced conflict in groups (yet).

Other Results – where conflict arises

Stages where conflict arose 2003



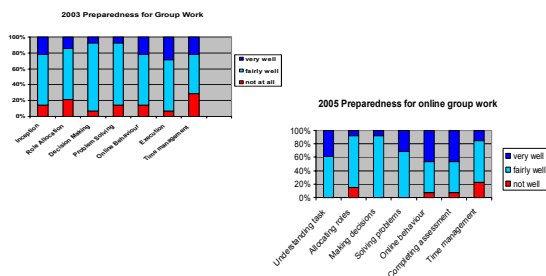
Stages where conflict arose 2004



Most conflict in online group work arises when the assignment is nearing completion

How are we going – Preparedness for online group work

Students were asked "how prepared do you think you were?" for various aspects of group work. They said:



Some useful strategies

Strategy	Benefit
1. Sessions - How people function in teams	•Understanding of working with different personality types
2. Sessions - Virtual team work and overcoming problems	•Highlights challenge of virtual teamwork and alternate strategies
3. Formal training – WebCT & net-etiquette	•Avoids technical problems and misunderstandings
4. Online student forum	•Develops relationships & cultural/social awareness
5. Group assignment agreement	•Makes expectations explicit & generates commitment
6. Assessment criteria – Team effectiveness in group assignments	•Motivates skill development & emphasises their importance
7. Anonymous discussion thread – Learning about virtual group work	•Makes skill development & reflection explicit



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Further responses in 2005

- Requirement for Student Contribution
 - Changed assessment policy (50% group mark for under-contribution, 0% for failure to contribute)
- Promoted use of live chat
 - Helps to facilitate inception (particularly role allocation), time management, conflict resolution



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Continuing Challenges – any suggestions?

- A few students continue to be absent
- A few students seem to forget what they learned about potential problems with virtual group work once they encounter the reality
- When stressed, net-etiquette can become a lower priority for a few students
- Some students show reluctance to contribute – insecurity?
- Identifying under-contribution in time to warn students is proving difficult