MINUTES OF THE MEETING OF THE
FACULTY TEACHING AND LEARNING COMMITTEE
held in Room 1.58, First Floor, Physics Building
on Monday 3 November 2008

Present:
Professor Geoff Hammond (Chair)
Dr Nancy Longnecker (CATLyst)

Representatives from Schools:
Dr Jan Meyer (Anatomy and Human Biology)
Professor Don Robertson (Biomedical, Biomolecular and Chemical Sciences)
Dr Peter Whipp (Sport Science, Exercise and Health)
Associate Professor Ian McArthur (Physics)
Dr Vance Locke (Psychology)

Other Representatives:
Associate Professor Les Jennings (Head, School of Mathematics and Statistics)
Dr Ralph James (Physics)
Dr Thomas Martin (Senior Lecturer/Faculty Offshore Programs Director)
Dr Jane Emerson (Academic Student Advisor)
Ms Marjan Heibloem (Representative from FNAS)
Mr David Enright (Senior Administrative Officer, Faculty Offshore Programs)
Ms Felicity Renner (Biological Sciences Library)

Apologies
Ms Jenny Gamble (Faculty Manager)
Ms Jacqueline McNally (Postgraduate Student Representative)
Miss Matilda Oke (Undergraduate Student Representative)

Mrs Kath Williams (Executive Officer)

1. MINUTES

RESOLVED – 14

that the minutes of the meeting of Teaching and Learning Committee held on Tuesday 14 October 2008
be confirmed subject to the following corrections.

- In the list of those present “Active Chair” be changed to “Acting Chair”.
- Item 5. Chairs Report “Active Chair” be changed to “Chair”.
- Item 6. Education for Tomorrows World: Course of Action” needed to be documented in a pathological manner being both constructive and focused” be changed to “needed to be documented”.

2. DECLARATIONS OF POTENTIAL FOR CONFLICT OR PERCEIVED CONFLICTS OF INTEREST

No conflicts were declared.
3. ITEMS/BUSINESS IN PROGRESS FOR NOTING SINCE PREVIOUS MEETING

<table>
<thead>
<tr>
<th>Item/Business in Progress</th>
<th>Progress Update</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching and Learning Guide for Faculty Staff.</td>
<td>Draft to be checked by Faculty Student Advisor and Faculty Manager prepared by Ms Heather Morton</td>
<td>On hold.</td>
</tr>
<tr>
<td>Formal request to SIMS for standardised marks. Request has been submitted for the position in cohort (percentage) which is easier to calculate.</td>
<td>Chair and Faculty Manager to report</td>
<td>In progress</td>
</tr>
<tr>
<td>Breakdowns of the destinations of students who do not complete their course from the Institutional Research Unit.</td>
<td>There is no reliable data.</td>
<td>Completed</td>
</tr>
<tr>
<td>The specification of learning outcomes for courses and majors offered in the Faculty.</td>
<td>Audit to be undertaken. School to recommend major/s sequence</td>
<td>In progress</td>
</tr>
<tr>
<td>Audit of each major sequence to determine whether English Language Competency Skills are shown in at least one unit in each year level.</td>
<td>Audit to be undertaken. School to recommend major/s sequence</td>
<td>In progress</td>
</tr>
<tr>
<td>Faculty Operational Priorities Plan (OPP) implementation strategies and targets</td>
<td>Faculty Manager has updated implementation strategies and targets and distributed them to members for consideration</td>
<td>In progress</td>
</tr>
<tr>
<td>Should students at PSB be offered a 1) BSc Science and Technology or 2) BSc with selected majors</td>
<td>Academic Student Advisor to report</td>
<td>In progress</td>
</tr>
<tr>
<td>New grade for failed component (FC)</td>
<td>Academic Student Advisor to set up small group to discuss the implications</td>
<td>Members wishing to volunteer to be in group should email Academic Student Advisor</td>
</tr>
</tbody>
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5. CHAIR’S REPORT

Before commencing report the Chair on behalf of the Committee welcomed Dr Thomas Martin and Mr David Enright.

The Chair reported as follows:

- Geoff Stewart had asked to see the ‘Teaching and Learning Guide for Faculty Staff’ and would give feedback. The CATLyst commented that this was a very useful document for someone who is new to teaching at UWA.

- On behalf of the Dean the Chair had been to the Annual General Meeting of the Australian Council of Deans of Science in Sydney. Half of the Agenda items had been devoted to Teaching and Learning issues. Richard Johnstone (from the Australian Learning and Teaching Council) had noted that the Council would welcome proposals for research on
Research Training and Research Supervision. Members were asked to advertise this in their school and to look on the ALTC website for more information at:

http://www.altc.edu.au/carrick/go/home/grants

- The BBCS representative had been to a workshop which covered simple ways of guiding group work in undergraduates. The notes from this workshop were distributed (Attachment A).

- At the last PSB Board of Examiners meeting it emerged that one school had been incrementing final marks that ended in ‘9’ by one. Members noted that this was accepted practice only for final marks of 49.

- The number of units offered by faculties for each EFTSL indicated that they fell into three bands: 0.8 – 0.9, 0.13 – 0.14, and 0.21 – 0.24. LPS fell in the middle band.

- School Teaching and Learning representatives were asked how much time was required by their position. Members found it difficult to define the workload exactly but agreed that it was more than two hours a week.

6. **TEACHING AND LEARNING OPERATIONAL PRIORITIES PLAN (OPP)**

The top Teaching and Learning priorities indentified by Schools at the July meeting had been circulated to members via email.

At the September meeting it was agreed that the top three objectives for the Faculty were:

- Sustainable and efficient teaching
- The Teaching-Research nexus
- Enhance the student experience.

The Faculty Manager had provided implementation strategies and targets for the three objectives and the first draft report was tabled at the October meeting. Members had been asked to consider the report and provide feedback to the Faculty Manager. Feedback provided by the SSEH representative was tabled at the meeting (Attachment B).

Member’s comments included:

- Why the “Improve CEQ Overall Satisfaction Index (OSI) by 1% each year” appeared twice under targets.
- The number of units must be reduced in a way that does not lose student numbers.
- The fourth-year SSEH programs should be included in the ‘To enhance the student experience’ objective.

Members sought further information on the Peer Assisted Learning (PAL) program. Members were informed that Matthew Kohler would book venues and that unit coordinators would not be responsible for training group leaders. Further information for PAL is available at:

http://www.science.uwa.edu.au/studentnet/PAL

Members were asked to forward any further comments for the OPP to the Faculty Manager.

7. **PSB ISSUES RELATING TO FAILING THE SAME UNIT TWICE AND SUBSTITUTE FOR DEAN’S CONGRATULATIONS**

The question whether students undertaking studies through PSB should be allowed to take a core unit for a third time within the BSc course had been raised at the September meeting. Members had agreed that the Science Rule precluding a third enrolment within the course, and hence the current practice of requiring students to complete these units on a ‘Not-for-Degree’ basis, must continue to be applied. Further related issues were now raised.
The Science Rules stated that a student who had failed the same unit twice would not be permitted to enrol in any unit of the same or higher level in the same subject. This was problematic for PSB students who had no feasible alternatives. For instance, a student had failed GENE2204 twice in the BSc (Biomedical Science) program. This program required GENE2230 and GENE3331/2. At Crawley, students were able to complete the BSc (Biomedical Science) without any genetics. Members noted that if a student had failed a unit twice they were unlikely to succeed and it was suggested that if the BSc with limited majors became available at PSB students could transfer into that. Alternatively they could transfer to Crawley, but at far greater cost. A further suggestion was that the rules could be amended to allow continuation in the same subject where there was no other alternative; but this could possibly bring up equity issues. It was provisionally agreed that the Academic Student Adviser and the PSB Board of Examiners should consider each case individually.

The University Rules allowed substitution of up to twelve points in any program. Where a student had failed a unit twice, and it was not a core unit, a substitution could be allowed. However, should the substitute unit be at the same level? At Crawley both the Biomedical Science and the Molecular Biology programs required forty-eight points at level three. Members were asked whether a student who failed CHEM3305 twice should be allowed to take a substitute at level two. Members agreed that the substitution should be at the same level if possible.

The Academic Student Adviser had raised the issue of a substitute letter for Dean’s congratulations. PSB students were never eligible for the Dean’s congratulations, because the rules required at least forty-eight points to be passed in a single year, with HD in all units; PSB students could only ever take forty-two points (thirty-six points for entrants from September 2008 onwards). A substitute letter had been written for 2004-2005, but none had been written since. Members were asked whether, for the university term B7 2008 (15/11/08 – 6/01/09), students who had HD in all units taken in the previous calendar year, regardless of the number of units, be sent a modified Dean’s letter. It was decided that a substitute letter should be issued to students who had enrolled full time the previous year and had attained HD in all units. Members also agreed that students, who in 2006 fell into this category, should receive a substitute letter.

8. TEACHING QUALITY INDICATORS (TQI) PROJECT

UWA is a partner in the Teaching Quality Indicators Project which is supported by the Australian Learning and Teaching Council. A copy of the draft framework for evaluating teaching quality was tabled at the August meeting. The purpose of the project is to develop indicators of good teaching which would help academics (particularly new appointees) develop and document their teaching. Following feedback received the TQI project team were now seeking further comment on the proposed “UWA Teaching Criteria Framework” and the final draft of the proposed framework was provided to members. Members made the following comments:

- the detail of the proposal would be easier to follow with an overview or executive summary
- grades achieved by Honours students were not valid indicators of supervision quality as some supervisors accepted only high-achieving students; a measure of ‘value adding’ was needed
- peer review would require a significant workload for it to be valid
- the document assumed that more experienced staff would necessarily have more teaching-related expertise

The Chair agreed to forward this feedback to the TQI working group.

9. LENGTH OF EXAMS

The question whether the maximum length of final exams should be reduced from three to two hours, now that virtually all units also had continuous assessment during semester, had been raised at a meeting of the Faculty Administrative Officers/Sub - Deans’ group held on 3 October 2008. Faculties had been asked to discuss this issue.

Members were informed that the Exams Officer had calculated that scheduling three two-hour exam sessions per day would save five working days, increasing the period available for
marking. The marking itself would be less burdensome. The Exams Office would ensure that no student had more than two exams in one day.

Members expressed mixed feelings over this issue, raising the following concerns:

- whether it was appropriate for probably 50% of a unit's assessment to be determined in a two-hour exam;
- whether therefore more units should have two separate papers, increasing the number of exams;
- whether two hours would give students sufficient time to plan and write answers effectively demonstrating a considered grasp of the material;
- whether the shortening of the exam period would disadvantage students by reducing their revision time, as they would take the same number of exams over fewer days;
- whether scheduling three exam sessions per day would involve adjustments such as earlier start, a later finish, scheduling over the lunch period and/or a reduced interval between sessions, any of which might cause problems for students;
- displacing some of the assessment to a formal mid-semester test was problematic because of the difficulties of getting all the students together to sit it at one time and in a suitable venue.

Academic Student Advisor to report back to the Administrative Officers/Sub Deans’ group, including a recommendation that students' views should be canvassed.

10. SCHOOL REPORTS

**Anatomy and Human Biology (ANHB)** - Dr Jan Meyer reported that the School was considering ways in which its teaching program could be modified to accommodate a reduction in teaching staff.

**Biomedical, Biomolecular and Chemical Sciences (BBCS)** – Professor Don Robertson reported that the School had been working on gathering data on English Language Competency Skills.

**Physics** – Associate Professor Ian McArthur reported that the School had been looking at the refurbishment of the undergraduate laboratories and the associated costs.

**Psychology** – Dr Vance Locke reported that the School was working on implementing the restructure which would offer some units in alternate years.

**Sport Science Exercise and Health (SSEH)** – Dr Peter Whipp reported that the School had been experiencing difficulties with students that are not attending classes because of Community Work.

11. CATLYST REPORT

CATLyst reported that there had been one successful applicant from the Faculty for the Improving Student Learning (ISL) grants. Further details are available on the web at:


CATLyst reported that the CATLyst network would be restructured. CATLysts’ would work on a central project, the first of which was training sessional teaching staff. Members requested that this issue be discussed at the next meeting.

12. EDUCATION FOR TOMORROW’S WORLD: COURSES OF ACTION

Members had agreed that areas of concern to the Faculty should be documented. The BBCS representative had drafted a submission to the review steering committee and would circulate it to members.
Three Keys to Using Learning Groups Effectively

Small group-based instructional methods can produce a wide variety of positive educational outcomes. These outcomes, however, only occur when instructors create conditions that motivate students to prepare for and engage in give-and-take discussions. Fortunately, by applying three fundamental principles, instructors can create these conditions in the vast majority of learning groups. These principles, referred to as "KEYS" in this essay, are: 1) promoting individual and group accountability, 2) using assignments that link and mutually reinforce individual work, group work and total class discussions, and 3) adopting practices that stimulate give-and-take interaction within and between groups. Further, to obtain the best results from using small groups, instructors must observe these keys in managing each of three opportunities (shown as "3 Boxes" in Figure 1) to engage students with course concepts: individual work, small group work, and total class discussion.

![Figure 1: Engaging Students with Course Concepts](image)

**KEY #1 -- Promoting Ongoing Accountability**

If students fail to prepare for group work, group assignments are likely to force better students to "carry" their less willing and/or less able peers. Further, improperly managed small-group discussions are likely to degenerate into social events in which little if any learning occurs. Both problems can be avoided almost entirely. The key is using assignments and practices that hold individuals and groups accountable for their behavior.

**Individual accountability.** Instructors can use three quite different mechanisms to promote responsible individual behavior. The most basic mechanism is requiring students to complete preparatory individual assignments (especially graded ones) prior to group discussion (e.g. requiring students to turn in written concept summaries at the beginning of class on group assignment days). A second mechanism is using procedures or assignments that cause members to express their point of view during group discussions. For example, some instructors assign one member to make sure that everyone is asked to provide input. The third mechanism is to include peer evaluation in the grading system.

One very effective way to promote individual accountability is the Readiness Assurance Process in Team Learning (Michaelsen, Knight & Fink, 2004). This process requires individuals to complete a test (typically true-false/multiple-choice) over a set of pre-assigned readings and turn in their answers. Next, groups re-take the same test and turn in their consensus answers for immediate scoring. This process incorporates all three mechanisms for promoting individual accountability. First, students are directly accountable because the individual scores count as part of the course grade. Second, during the group test, each member is invariably asked to voice and defend his or her choice on every question. The resulting discussions produce immediate feedback that provides clear evidence of both the degree to which individual members have prepared, in advance, for the group work and the
importance of obtaining input from everyone on all-important decisions. Third, members who fail to
complete the assigned readings almost invariably receive a low peer evaluation.

**Group Accountability.** Without group accountability, neither instructor nor students know: 1) 
if their learning goals have been achieved, or 2) if students are taking the group work seriously.
Groups can be held accountable by carefully managing small group and total class discussions. The 
key is the nature of the group assignments. First, assignments for groups (or each phase of a long-term 
project) must require groups to produce a tangible output. Second, the “product” that students are 
asked to create should enable both immediate feedback on the quality of group work and the 
opportunity for direct comparisons with output from other groups.

**KEY #2 -- Using Linked and Mutually Reinforcing Assignments -- “4 S’s”**

The second key to using groups effectively is making sure that the assignments at each stage of the 
learning process (i.e., the “3 Boxes” in Figure 1) are linked and mutually reinforcing. When this is 
done, assignments in the first two stages have a powerful positive effect on the learning that occurs in 
the next stage. To obtain the maximum overall payoff, assignments at each stage should be 
characterized by “4 S’s”:

1) **Significant problem:** Students should view the problem as authentic and relevant to their lives.
2) **Same problem:** Individuals/groups should work on the same problem, case, or question.
3) **Specific choice:** Individuals/groups should be required to use concepts to make a specific choice.
4) **Simultaneously report:** Whenever possible, groups should report their choices simultaneously.

The importance of assignments that are linked and mutually reinforcing is illustrated by the 
experience of a colleague who uses a series of case files to develop medical students’ critical thinking 
(i.e., diagnostic) skills. For many years, she assigned groups to write a series of one-page memos 
identifying a preliminary diagnosis for each patient but was disappointed in the learning outcomes for 
two reasons. First, students only worked with a fraction of the cases because groups delegated the 
work to individual members. Second, correcting the assignment took so long that the value of the feedback was minimal. She now uses the Readiness Assurance Process (described above) to ensure that 
students have mastered basic concepts and that groups have developed a norm of seeking input 
from each member before reaching a decision. Then, on the day of the activity, she adds a vital piece 
of new information to a set of pre-assigned patient cases (which are inherently authentic and relevant 
to medical students) and gives groups a specified length of time to either: 1) select a most likely 
diagnosis from a limited set of alternatives, or 2) commit themselves to a position that they do not have 
足够信息来做出一个明确的诊断。当时间用完后，她发出一个信号，表明小组在整个过程中 
同时完成一份法律问题单，其中他们作出的选择剩下的留给小组。

**KEY #3 -- Adopting Practices that Stimulate Idea Exchange**

The degree to which group discussions expose students to new perspectives from their peers 
depends on two factors. The first factor is the extent to which the instructor uses assignments and 
creates conditions that foster give-and-take group interaction. The other factor is the diversity of 
opinions, ideas, and perspectives that exist within each group.

Using assignments that require group interaction. The most common reason for a low level 
of group interaction is the use of assignments that can be completed by independent individual work. 
For example, if assignments are too easy, one member will simply act on behalf of the group. 
Assignments that require a great deal of writing are also likely to limit both interaction and learning. If 
asked to produce a lengthy document, group discussions seldom produce very much learning for two 
reasons. First, discussions tend to be limited in duration (i.e., students feel pressured to get going on
the real work). Second, they tend to focus on working out who will write which piece of the total product rather than on the substance of the issues that will be contained in the paper. By contrast, assignments that require students to use course concepts to make difficult choices (e.g., the medical school example above) always produce high levels of both interaction and learning (Michaelsen, Fink & Knight, 1997).

**Removing barriers to participation.** Often, members of new groups are reluctant to speak out. One response to this problem is assigning roles within the group, e.g., recorder, summarizer, devil’s advocate, etc. However, a more powerful approach is using permanent groups and assignments, practices, and a grading system that foster the development of group cohesion (Michaelsen, Black & Fink, 1996). As groups become more cohesive, trust and support typically build to the point that even naturally quiet members are willing to engage in intense give-and-take interactions with little worry about being offensive or misunderstood (Watson, Michaelsen & Sharp, 1991). As group members come to see their own success as tied to the success of their group, they are motivated to invest considerable personal energy into doing group work.

**In-class group work.** Interaction is also likely to be limited unless groups are allowed to do their work in class. In many cases, the cost of meeting outside of class is so great that students will meet just long enough to divide up the work. They will then complete the assignment individually and learn little from each other. Their output is a group product in name only and, any cohesiveness developed during the initial meeting, is likely to be offset by a concern that other members might fail to do their part.

**Creating diverse groups.** Another way to expose students to new ideas is making sure that groups are relatively large (5-7 members) and as diverse as possible. Creating diverse groups involves two steps. The first is identifying the dimensions that make a difference in student performance in each specific course, e.g., majors, previous course work, relevant job experience, etc. The other is sorting members into groups so that member assets and liabilities are spread as evenly as possible across groups (Michaelsen, et al, 2004).

**Summary and Conclusions**

By using assignments in each of the “4-Boxes” (see Figure 1) that are completed during class time, and are characterized by the “4-S’s” (Significant problem, Same problem, Specific choice, and Simultaneously reporting), instructors create the conditions needed for effective learning groups. These conditions include: individual and group accountability, the need and opportunity for group interaction, and the motivation to engage in give-and-take discussion. In the vast majority of groups, the net result will be increased learning and high satisfaction for both students and instructors.

**References**


Criteria for Effective Group Assignments

Prior to Group Discussions:

☐ Are group members required to use newly acquired concepts to make a specific choice, individually and in writing? (Note: This individual accountability is especially important in newly formed groups.)

During Discussions within Groups:

☐ Are groups required to share members’ individual choices and agree (i.e., reach a group consensus) on a specific choice?

☐ Will the discussion focus on “Why?” (and/or “How?”)

☐ Will the groups’ choice(s) be represented in a form that enables immediate and direct comparisons with other groups?*

During Discussions between Groups:

☐ Are group decisions reported simultaneously?*

☐ Do group “reports” focus attention on the absolutely key issues?*

☐ Are groups given the opportunity to digest and reflect on the entire set of “reports” before total class discussion begins?

☐ Will the discussion focus on “Why?” (and/or “How?”)

The more “Yes” answers, the better. If the answer to all eight questions is “Yes”, the assignment will effectively promote both learning and group development.

* The form in which individual and group choices are represented largely determines the dynamics of the discussions that follow. Both individual reports to groups and group reports to the class should be as absolutely succinct as possible. One-word reports are often the very best (e.g., yes/no, best/worst, up/down/no change, etc.) because they invariably stimulate a discussion of why one choice is better than another.
Hi Jenny
I remembered that you asked for feedback re the T&L OPP. We (SSEH T&L) met yesterday and discussed the document. In general the following were raised:

- SSEH basically complies with many of the specified requirements.
- Some contradiction in a request for improved student outcomes and a reduction in staff teaching time and an increase in student numbers.
- Peer assisted learning program is a worthy investment, although we are concerned for our limited teaching space and crowded timetable. Such activities will potentially need to be centred at the Library.

Hope this helps.

P

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