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4.2 CYCLE 1 – DEVELOPMENTS IN MODULE DESIGN

After accepting the job as a lecturer at Aberystwyth, I was asked to design a new 3rd Year module on ‘Dryland Geomorphology’ (i.e. the study of the landforms and land-forming processes in the world’s extensive hyper-arid, arid, semi-arid and dry-subhumid regions). This new module was to be a ‘research-led’, 20 credit module, thus involving 200 hours of work by the students, including lecture attendance, preparation of assignments and revision. It had to have a range of assessment methods, with each method examining a different aspect of the module. As it was an optional module, and open to all students in IGES, especially those following the physical geography and environmental earth science pathways, it was not clear how many students would enroll for the module.

Using the Faculty forms for approval of new modules, and following examples of other modules offered within IGES, I designed this module at short notice while I was still based in South Africa. This was to ensure that all the paperwork would be submitted to Faculty in time for the module to be approved for the following academic year. The module outline submitted to Faculty is included in Appendix 4. An important aspect of these ‘New Module’ forms is that there has to be explicit statements of the learning aims, learning outcomes, how the learning outcomes will be assessed, how key skills will be addressed, and the topics to be covered. The module was approved by Faculty in early 2000 (and even cited as an example of ‘good practice’ – P.A. Brewer, pers. comm.), and was scheduled to run for the first time in Semester 2, 2000/2001 academic year. This teaching cycle focuses on aspects of module design.

4.2.1 Plan

My plan for the design of this module involved a number of aspects, the most important of which were the overall module content, the individual lectures, the handouts and reading lists, and the assessments.

4.2.1.1 Design of the overall module content

My philosophy in designing the module was that it should:

- cover different aspects of geomorphology in a range of different drylands (e.g. in order to provide answers to questions such as: where are dryland located ?; what are their defining characteristics ?; how is the physical environment in drylands structured ?; how does the physical environment adjust over time in response to environmental change ?);
- enable students to apply their understanding of geomorphological forms and processes developed in other IGES modules in a different environmental context;
- be customised to reflect my own research interests (e.g. each lecture topic could correspond to one or more chapters in the above book but the facts and concepts presented would be illustrated with my own case studies, examples and slides);
- demonstrate to students where the ‘research frontier’ in dryland geomorphology lies, by outlining where debates and gaps in knowledge still exist, and by explaining how I am contributing to some of those debates through my research.

Overall, I thought that this range of approaches would have the dual effect of presenting a comprehensive and coherent module whilst bringing some of the textbook material ‘to life’ by integrating some of my research into the teaching. In this way, it would also meet the requirement of being a ‘research-led’ module. The context, aims and objectives, and structure of the module was detailed on a ‘Module Outline’ handout (Appendix 5), and given to students in the first lecture.
4.2.1.2 Design of individual lectures

In designing individual lectures, I thought that:

- the first lecture should provide a general overview of drylands, in order to challenge preconceived notions of what a ‘dryland’ is, and to provide the context for the rest of the module;
- each lecture should build upon or demonstrate links to forthcoming or previous lecture topics or assessments (e.g. essay, seminar, exams – see below) so that as the module progressed the students would get a feel of progression in their level of knowledge, and also see the relevance of the material in terms of formal assessment;
- each lecture should have a clear, logical structure with clear ‘signposting’ all the way through;
- each lecture had to have a roughly uniform style (e.g. in terms of structure, use of teaching media, use of mid-lecture breaks etc.), so that the students would get a feel of continuity;
- each lecture should be delivered using a range of teaching media (e.g. overheads, slides, whiteboard sketches, handouts) in order to maintain student interest and to cater for a wide range of learning styles;
- where possible, lectures should encourage student activity (e.g. by posing questions to the class at different points, or encouraging students to discuss topics with their neighbours);
- each lecture should incorporate a range of my own slides in order to illustrate visually the topics discussed and to customize the textbook material.

An example of the overheads for the first two lectures in the module are included in Appendix 6. These overheads provided the basic points around which the lecture was structured, and were supplemented with whiteboard sketches, slides, small activities, and handouts and reading lists (see below). Overheads for subsequent lectures all followed this style.

4.2.1.3 Design of handouts and reading lists

In designing handouts and reading lists, I thought that:

- handouts had to complement and supplement the lecture material (e.g. by including key diagrams that are too complex to draw on the whiteboard, and/or which require time to contemplate);
- each handout had to have a uniform look and style to provide a sense of continuity as the module progressed, and had to have clear attribution of the source of diagrams/tables in order to encourage similar practice among students;
- reading lists had to be large in order to reduce borrowing pressure on library books/journals, and to enable scope for individual study and research to be undertaken.

Examples of the handout and reading list for the first two lectures in the module are included in Appendix 7. Handouts and reading lists for subsequent lectures all followed this style.

4.2.1.4 Design of assessments

In designing the assessed essay for the module, I wanted to use a general or underlying theme that combined elements from different parts of the module. Several common themes in dryland geomorphology were highlighted at the of the second lecture (see p.9 of the overheads in Appendix 6) but I decided to use the role of biota (vegetation and animals) in dryland geomorphology as the topic of the essay. This theme crops up in a number of lectures, thus enabling students to draw on material presented in different parts of the module but also encouraging them to read widely and so complement study conducted for other parts of the module. An essay on this theme also would enable both of the specified learning outcomes (Appendix 5) to be assessed. The assessed essay question for the 2001 year is included in Appendix 8.

In designing the seminar series, I wanted to use another underlying theme that combined elements from different parts of the module. I decided to use the interactions between fluvial
and aeolian processes/forms as the theme for the seminar series, as again it would enable
students to draw on material presented in different parts of the module but also encourage them
to read widely, thus complementing study conducted for other parts of the module. To guide
them in seminar preparation, clear instructions were provided on the seminar series handout as to
the assessment criteria, what the presentation should include, and the key articles around which
the seminars should be structured (Appendix 8). Guidelines regarding preparation of the seminar
report were also given (Appendix 8), and this was supplemented by instructions given orally
following the presentations. The seminar series and report would enable both of the specified
learning outcomes (Appendix 5) to be assessed.

In designing the examination, I was constrained by the fact the questions had to be consistent
with the rubric of other, similar IGES modules (i.e. a 2-hour examination with two questions to
be answered from a choice of four). Clearly, the topics used for the essay and seminars could not
be examined again, so I decided to use one question from each of the main sections of the
module (weathering processes and forms, fluvial processes and forms, aeolian processes and
forms, change in drylands). The questions were designed in order to assess the specified
learning outcomes for the module (see Appendix 5). The examination questions for the 2001
year are included in Appendix 8.

4.2.1.5 Evidence for assessing the success of the plan
To assess the degree of success of these different aspects of module design, I proposed to use the
following lines of evidence:

- student interest in the lecture material as gauged by the level of student retention or
  recruitment during the early weeks of the module (e.g. as indicated by the number of ‘Change of
  Module’ forms that I would have to sign), and by the level of lecture attendance as the weeks
  passed;
- student engagement with, and comprehension of, the lecture material as indicated by student
demeanour during lectures (e.g. yawning, note taking), by the depth and clarity of student
  answers to questions, and by the quality of questions posed by the students to myself;
- E-mail comments from students on aspects of the module, lecture or assessment design;
- informal feedback from colleagues as obtained in tutorial discussions with students who
  were following the module;
- comments from teaching observers present in certain lectures on levels of student
  engagement and comprehension (as well as other aspects e.g. methods of delivery);
- student responses on ‘Module Evaluation’ questionnaires at the end of the module (these
  would indicate the overall success of the module on a range of criteria, not just those related to
  module design);
- the quality of essays, seminars, and exam answers (this would indicate the students’
  comprehension of the lecture material, and in particular whether the module was meeting its
  learning aims and outcomes, and whether it was too easy or too challenging).

4.2.2 Progress notes
Some examples of the comments received from students and colleagues as the module
progressed are provided below, with the outcomes of the teaching observations discussed in the
following section:

Week 1
Comments are received from students during the mid-lecture break:

"This module looks really interesting and is different to many of the other ones on offer within the
Institute"
"Can you provide some sample exam questions?"
An E-mail request is received following the first lecture:

"I am going to take your new 3rd year module: the lecture on Thursday was really good. You said you would be interested in hearing any suggestions... The only problem I found was taking notes! -I know that sounds silly, but a lot of the modules have been put on the web, so we can print off the lecture notes. This means that in the lecture we can add any extra information to the print outs and it saves a lot of time. I tend to find it easier to take in what is being said if I'm not trying to copy it all out at the same time. If you could get them on the web, it would be really helpful." (13/02/01)

Although I was initially against providing any lecture notes in order to provide an incentive to attend lectures, on reflection I considered this to be a good idea and agreed to send out the lecture notes via E-mail prior to each week's lecture. Those who wished to print out the notes prior to each lecture could then do so, and annotate them during the lecture.

Some quality questions are also received by E-mail:

"Do you class the Kakadu National Park in Australia as a suitable dryland environment to study in detail?" (13/02/01)

Several change of module forms are also signed (some transferring out, and some in).

Week 2

The number of students attending in Week 2 seems to be roughly the same (and possibly more) than in Week 1, suggesting that interest is high (around ~35 students had pre-registered for the module). Relatively few students appear to be taking additional notes during lectures, although most have printed off the E-mailed notes.

Comments are received from colleagues:

"All the students seem to be enjoying your module. Must be because it's based on a book!"

"The students like your lectures: they say you have a good lecturing style and use lots of nice slides"

Problems are reported by various students in accessing some of the lecture notes distributed by E-mail. For example:

"Just tried opening the second lot of lecture 1-2 notes that you sent and I get a message saying that it couldn't be found.
Attachment Converted: "M:\EUMAIL\attach\OVERHEADS Lecture 1-21.doc" (20/2/01)

In response to an E-mail asking if any other students have has similar problems, others comment that:

"Just to confuse you further, I thought I'd let you know that I HAVEN'T had any problems getting the notes - they came through fine first time on all 3 sets. Strange isn't it!!" (21/02/01)

After a series of E-mails from various students reporting problems in accessing the lecture notes, and after various attempts from me to forward the notes again, some students finally come up with the solution:

"the attachments do work u cannot open them directly from eudora. If u go into word and then file open and go to your central filestore (M) and sub-title email and then sub-title attach the files are there and they will open. I hope that makes sense and is really why the files won't open." (20/02/01)

"If you go into word and open up your m drive and then in email and then attach and open them like that, they all open fine." (21/02/02)

Several change of module forms are also signed (some transferring out, and some in).
The number of students enrolled on the module seems to be stable, although lecture attendance is variable. It turns out that the Thursday morning slot follows a big ‘Student Night’ at the Union! Still relatively few students appear to be taking additional notes during lectures although most have printed off the E-mailed notes.

Problems are still being reported by some students regarding access to the E-mail distributed notes:

"I’m sorry to tell you but: the attachment cannot be found." (27/02/01)

"The email that you sent out with the lecture notes for Thursday’s Dryland Geomorphology lecture will not open!" (28/02/01)

I encounter some web sites that the students might find useful and send this message by E-mail:

"Dear All

I have found some NASA websites which may be of interest to you all, as they contain some dryland imagery and information on specific desert regions. These sites include:

http://landsat.gsfc.nasa.gov
http://daac.gsfc.nasa.gov/DAAC_DOCS/geomorphology/GEOL_HOME_PAGE.html

Be wary of the information included with the pictures for the 2nd website. It comes from an out-of-print NASA publication from 1986, and some of the info is out-of-date or just plain wrong (we will come back to some of these erroneous concepts in lectures).

A 3rd site which is just starting to be established (but perhaps you should keep an eye on this once we start the ‘rivers and floodplains’ lectures) is at: http://www.abdn.ac.uk/~gmi196/DrylandRivers/

Happy surfing" (28/02/01)

Several more change of module forms are also signed (some transferring out, and some in).

Week 4

Two observers are present (see Appendix 9 and discussion below).

Comments are received from a colleague:

"The students are really enjoying your module. They like the variety of material presented each week."

I send out an invitation to attend an IGES research seminar that I will be presenting:

"There is an optional IGES research seminar that will be given at 5pm on Wednesday in G3 by myself. This will complement some of the later lecture material. I will be talking about some ongoing work on the channels of the Okavango wetlands, Botswana: ‘Hippos, sedges and leaking banks as controls on river form and process in ‘Africa’s Jewel’: observations from the Okavango Delta, Botswana’ (05/03/01)

A student requests that the notes be sent again:

"Dear Sir, unfortunately, I have incorrectly modified lecture notes 9-11 and do not have a copy of the original notes that you sent. I would therefore be most grateful if you could forward those notes again to me. Many thanks" (08/03/01)

The level and quality of student response to questions posed in class is generally good, suggesting that they are following the lecture material and even doing some additional reading.

The exam questions are drafted and sent to the external examiner.

Several more change of module forms are also signed (some transferring out, and some in).
Week 5

The number of students has stabilized now that they can't withdraw from modules. ~42 students are now registered for the module (higher than the ~35 pre-registered which indicates a slight influx as the module has progressed).

Questions start to roll in about the assessed essay, for example:

"Just a quick question - do you consider human activity to be biotic? (i.e. can I write my essay on human influences on drylands?)" (13/03/01)

"If I chose to concentrate on the effects of overgrazing, cropping and change in vegetation, and mentioned farm vehicles and urbanisation, would that be okay? Cattle and corn are biotic aren't they?" (13/03/01)

"I was just enquiring about the essay for the 'drylands' module. The question puts reference to the term 'biotic', and I was just wondering what exactly this entails, as I have seen some examples which includes the influence of man. Does it just concern vegetation and soil biota. Also does it include elements such as soil moisture?" (19/03/01)

Week 6

Problems of access to reading material start to surface as the essay deadline approaches:

"I have been trying to get hold of the book by J.B. Thornes: vegetation and erosion: Process and environments to read the chapters recommended in preparation for the course essay. The book is on loan and while it was held for collection on level D, I was unable to request it as it was in the library although not available for loan. I am now 2nd in the queue for it but as it is a standard loan book it will not be available to me until after the deadline for the essay. Do you have a copy that I could borrow to read the relevant pages or know anywhere else I may gain a copy? (20/03/01)"

"I have been trying to read some catena articles off the internet, I have found the catena on Elsevier science webpage, but it will not allow me to look at abstracts or full documents, do I have to register to read it or can I access catena though another way? (21/03/01)"

Week 7

Two students comment during a mid-lecture break:

"You really need to develop some kind of a web site for the module along the lines of some of the others offered in the Institute"

As if to confirm this, problems with the lectures notes are still being reported:

"Dr Tooth, Could you please e-mail me the lecture notes for Thursday 22nd March, as I never received them. Thank you" (23/03/01)

Week 8

Two observers are present (see Appendix 9 and discussion below). The level of student attentiveness and their response to questions posed in the lecture drops when these observers are present (as noted by one observer).

More problems with access to popular reading material are reported:

"I am attempting to do the essay you set for Dryland geomorphology, but a book I need (Vegetation and Erosion, ed. Thornes) is out, there is only one copy and there are 5 requests on it. I was wondering if you had a copy I could borrow for half a day??" (02/04/01)

Week 9

A belated request for some lecture notes is received:

"I signed up for the Dryland Geomorphology module 3 weeks into the course, attending the lectures, but missing the emails with attachment overheads 1-8. Would it be possible for you to send them to me in the near future. Thank you" (23/04/01)
Questions concerning the seminar presentations start to arrive:

"Is there any possibility that our Dryland presentation this coming Thursday could be done using Powerpoint within the Biology lecture room. Could you let me know whether this can or cannot happen? Thank you" (29/04/01)

"Would it be possible to borrow some slides showing examples of linear/transverse dunes, flood plains and salt pans in the Simpson and Strzelecki Desert, Australia for our presentation on Thursday?" (30/04/01)

"Sorry, but I have misplaced the handout with the seminar question on it. Would it be possible to either get another copy (maybe put in pigeon hole) or, if easier, could you simply tell me the question for the writeup. Sorry for the inconvenience, thank you" (03/05/01)

The student seminars take place. Attendance is near complete and attention is maintained during the 2-hour slot. The seminars are a little disappointing; in general, they are poorly presented (e.g. busy or untidy overheads) and some do not convey a clear understanding of the material. In part, this may have been due to the fact that PowerPoint facilities were not available in this lecture theatre.

Our examinations officer comments:

"The external examiner said that you write very good exam questions!"

The external examiner does not suggest any changes to my exam questions.

**Week 10**
Still requests for lecture support material continue to roll in:

"Dr Tooth,

I don’t have any reference lists from the dryland geomorphology lectures after the 11th lecture on wetlands. Would it be possible to collect references sometime maybe in the lecture on Thursday morning?? (09/05/01)

**Week 11**
In the last lecture, ‘Module Evaluation’ questionnaires are handed out to students and returned (see Appendix 10 and discussion below).

Other E-mail requests are received:

"Have you got a copy of the Nash and Gleick paper from 1991 in the Journal of Hydrology and the Muhs and Maat 1993 in the Journal of Arid Environments? As Hugh Owen does not have these journals, or could you recommend any other texts that look at global warming effects on drylands?" (16/05/01)

One student asks to borrow the key text for the module, a week before the exam!

"Dr Tooth,

I can’t get a copy of the Thomas book anywhere. The short loan cannot be requested so its proving impossible to get hold of. Is it possible to borrow a copy? please. Many thanks" (16/05/01)

**Weeks 12+**
The students’ seminar reports are marked, and are variable. A few are clearly able to see and summarise succinctly the key themes emerging from the seminar series as a whole, but many are not. There is little evidence of reading beyond the articles recommended.

The students’ essays are marked, and show a reasonable amount of background reading using sources suggested in lectures and on reading lists, with some additional web-based material also incorporated.

Following the exam, some students are surprisingly buoyant:

"Great questions. Not nearly as bad as I thought they were going to be"

"Nice range of questions. I thought that the exam was going to be much harder."
The students’ exam answers are marked, and are generally sound, although sometimes with only limited use of their own case studies and examples to illustrate their answers.

Only minor changes to assessment marks are made in the internal moderation process. The external examiner also pays close attention to this new module and reports that the design and marking of assessments had all been undertaken using the principles of good practice common to IGES.

4.2.3 Feedback
Some aspects of feedback from students are apparent in the oral and E-mail comments noted above. Most of this was positive although clearly one or two ‘teething problems’ were being encountered in getting access to lecture notes or reading material.

Similarly, the students’ responses to questions on the ‘Module Evaluation’ forms were very positive, as reflected in the high mean scores for most of the questions (see Appendix 10) and the nature of the additional comments on the back of the forms. In the context of this teaching cycle, which focused on module design, the high scores (mean >4.0 out of a possible 5.0) for questions about the course description (Q.1), lecture attendance (Q.2), provision of additional material (Q.5), advance in knowledge and understanding (Q.7), improvement in intellectual skills (Q.8), recommendation of the module to other students (Q.10), and lecture preparation and delivery (Q.11-13), were especially pleasing.

In the context of this cycle, relevant positive additional comments included:
- for a module running for the first time, very good and very interesting;
- E-mailing of the lecture notes enabled less writing, more listening, and therefore more understanding, during lectures;
- slides chosen were stimulating and motivated students to read up on dryland areas and specific processes;
- 50% coursework assessment enabled interaction with other students following the module and reduced the pressure on the exam;
- the range of coursework assessments was good;
- the structure of seminar series was excellent and a sound way to increase understanding and ensure some revision before exams.

In the context of this cycle, relevant negative comments included:
- handouts could have been incorporated into the lecture better, rather than just briefly referring to them;
- the reading lists were too big and the amount of information was bit overwhelming;
- there was a lack of key texts in the library;
- more guidance could be given on the preparation of the seminar report.

Despite these few minor criticisms, overall the nature of the students’ responses and comments indicated that the students were enjoying the module, and getting to grips with the material, suggesting that the module design was sound.

Some informal feedback received from colleagues regarding student responses to the module, and the response of the external examiner to assessment design and marking standards, are also noted above; these were all positive.
Teaching observation forms were completed by several IOES postgraduate students, by my mentor, and by an observer from the Staff Development Office (see Appendix 9). Whilst all the observers’ comments were helpful and taken into account in subsequent lectures, in the context of this teaching cycle, the most relevant positive comments included the fact that overall:

- lectures were well prepared, logically structured and well organized;
- key points were reinforced throughout the lectures and appropriate case studies and examples given, especially using the lecturer’s own slides;
- student attentiveness, engagement, and rapport with the lecturer was good;
- some lectures were successful at involving the students by posing questions to them about research issues.

In the context of this teaching cycle, the most relevant negative comments included the fact that:

- the overheads were probably too detailed since students already had the notes in printed form, and the text on the overhead could therefore be shortened;
- the pace of delivery could be increased;
- more eye contact could be made with the audience;
- more questions to the students could be posed at appropriate places in the lectures.

4.2.3.1 Feedback to students
In addition to feedback provided to myself from colleagues/students etc., I also provided feedback to students, either verbally following lectures, or by E-mail. Most importantly, I responded to the request for notes after the first lecture:

"Thanks for the suggestion. I agree. The only problem: as it is the first time the course has run, and I’m experimenting a bit as the course goes along, the notes are generally not being finalised until just before the lecture. This leaves little or no time to get them on the web. I will try and think of a solution to this - possibly E-mailing notes to all those taking the course might be a temporary solution for this year."

(13/02/01)

This promise to distribute notes by E-mail was followed through, despite some technical difficulties as the module progressed (see above):

"As promised, here are copies of the overheads from the first 2 double lectures. This Thursday, we will finish off weathering products by looking at duricrusts (notes attached to the end of lecture 4) but will skip varnishes and go on to vegetation. I will send out the notes on vegetation tomorrow. Print these off if you so wish and bring them to the lecture to annotate. Please note that provision of these notes is to facilitate note-taking (as requested by one of you) and is not justification for missing the lectures."

(20/02/01)

In response to a request for sample exam questions in the first week, eight sample questions were designed and distributed in lectures. Multiple-choice quizzes were also handed out following each block of lectures to help students revise different parts of the module.

Individual student E-mails on various aspects of the module were also responded to as quickly as possible, for example:

- in response to the question about suitable dryland areas to study in detail:

"Re: Kakadu. Possibly a bit too wet (high seasonal rainfall = seasonal tropics) to fall into the category of drylands (see the map I gave with the 1st handout - Kakadu lies just outside). However, the Arnhem land escarpment to the south of the Kakadu wetlands has many of the features of drylands - large areas of rock outcrop, seasonal aridity etc. This may provide a suitable case study to illustrate some points arising in the course but I would also look for one or 2 other drier areas as well." (13/02/01)

- in response to questions about what ‘biota’ means in the context of the assessed essay:

"Good question, and an interesting point which I hadn’t even considered. In short, make sure that you mention it (a paragraph or 2, perhaps to conclude in an original way ...?), but really I want the essay to be on the other aspects of biota (non-human).

However, the question of human impact is one that you should still pay close attention to as the course goes along...." (13/03/01)
What about natural changes in vegetation? Overgrazing by free-roaming animals? Other types of natural impacts by animals? There are so many ‘natural’ biotic impacts, that to consider just human-influenced ones would be missing the point of the essay. Concentrate on these natural impacts.” (13/03/01)

- in response to requests for slides for use in seminar presentations:
  "Sure - come and see me tomorrow and tell me exactly what you want to illustrate and I’ll see if I have some that fit the bill" (30/04/01)

- in response to questions about further reading on particular lecture topics:
  "Journal of Arid Environments is in the National Library. Sorry, I didn’t realise that J Hydrology stopped at 1986 in the Hugh Owen. I don’t have copies of these papers myself but summaries of the findings (at least for Muys and Maat) can be found in O’Hara’s chapter in Thomas’ book. The literature on global warming effects on drylands is not large. You could try Thomas and Middleton’s book and Williams and Balling’s book (listed on the 1st reading list) as they will document the main likely effects but other than that there isn’t too much specific material." (16/05/01)

- in response to requests to borrow references or books
  "I have photocopies of a couple of the introductory chapters somewhere, which I can dig out for you if you so wish. Maybe other staff members have a copy? If you can’t get it, don’t worry: this was an important collection of papers 10 years ago but there have many similar papers published since e.g. in Catena, Earth Science Review, ESPL, Geomorphology etc. so you should still be able to get plenty of material" (20/03/03)
  "Seeing as you asked nicely, you may borrow my copy! Try and catch me tomorrow sometime" (16/05/01)

The nature and level of this feedback demonstrates that I was responsive to different student needs. Although very time- and energy-consuming, provision of such feedback (verbally or by E-mail) clearly was vital to improving student learning and thus ensuring the success of the module.

4.2.4 Implications for future practice

The proposed lines of evidence for evaluating the degree of success of the different aspects of module design (e.g. levels of student retention/recruitment, comments from students, colleagues, and observers etc.) have been commented on in previous sections. While these lines of evidence in themselves could have formed the basis for modifying future practice, as part of IGES’ teaching quality assurance procedures, I also had to provide a written review of the module, including an outline of the implications for future delivery of the module. This report is included in Appendix 11, and in the context of this teaching cycle, the key points are that:

- overall, the level of student satisfaction regarding different aspects of the module was high, and the additional comments mostly positive, such that there was no need for major changes to module design;
- the learning outcomes had been met. Students had performed satisfactorily across all modes of assessment, the range of marks for the different assessments was within IGES norms, and the range of assessment had enabled strong students to perform well and had not penalized too heavily poor performance on one mode of assessment.

Clearly, while most aspects of the module were fine, some minor changes could be made, including:
- providing more explicit guidance regarding the use of reading lists, as some students found the lengthy lists daunting;
- providing more copies of key texts in the library;
- outlining more explicitly what was expected of the students in the seminars and seminars reports, particularly regarding the quality of the presentations and identification of the key themes emerging.
In addition, some changes in the mode of delivery and the nature of support material were needed to ensure that the module would run more smoothly in Cycle 2. While the observers mainly highlighted minor changes that could be made to the mode of delivery, the students’ comments had highlighted the fact that it was much more important to develop some web-based support material for the module. Although interim modifications had been made as the module progressed (e.g. by posting notes by E-mail prior to each lecture), a more efficient solution was needed for subsequent years, and it was decided to make the development of this support material the focus of the next cycle.

4.2.5 Comments about personal learning
The main aspects of personal learning in this cycle included the following:

- stating the learning aims and outcomes on the ‘New Module’ form for Faculty had made me think much more explicitly about what I was trying to achieve with this module, and how I could achieve it, than might otherwise have been the case;
- designing and preparing the lectures had made me read and synthesise a lot of material that was peripheral to my main research interests, thus broadening my own understanding of dryland geomorphology;
- designing the module, lectures, and assessments had made me try and empathise with the students’ needs/attitudes. For instance, I was continually asking myself questions such as: how would I (or my friends) have responded to this material as undergraduates?; which types of presentation worked best with which kinds of teaching material when I followed courses in geomorphology as an undergraduate?;
- several of the students’ questions had made me re-think how to present some of the lecture material and/or which aspects to emphasise in future;
- my initial reservations about the negative effect on lecture attendance or attentiveness that might result from providing notes prior to the lecture were largely unfounded. The sensible way most students used the notes (i.e. printing them off prior to the lecture, and annotating and/or listening during the lecture), made me realize that the provision or otherwise of notes actually had little effect on lecture attendance/attentiveness. Prior provision of notes could actually enhance learning, particularly if students had actually read the notes prior to lectures, as the lecture itself would then be clarifying and/or reinforcing the material, rather than presenting it afresh;
- the observers’ comments made me think more explicitly about the style of lecture delivery (especially pace) and the risk of giving too much information (especially on ‘busy’ overheads);
- the students’ comments about the need for a website, and the possible use of PowerPoint in lectures, made me realize that I needed to update my IT skills. I was not convinced, however, that these obviated the need for more traditional methods of teaching.