Graduate Student Supervision: Resources for Supervisors & Students

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Nature & Process

Graduate student supervision involves a lengthy personal and professional relationship between student and supervisor that includes selecting a research topic, planning the research, identifying and acquiring the necessary resources, managing the project, actively conducting the research, carrying out the literature review, analysis and interpretation of the data, writing the thesis, defending it, publication of the thesis, and finding a position. This demanding process, usually stretching over several years, is made more complex by the increasing numbers and diversity of graduate students. Consequently, the supervisory process requires constant adjustment, great sensitivity, and interpersonal skill on the part of both professor and student.

Given the length and complexity of graduate student supervision, it is understandable that various difficulties may arise (Brown & Adkins, 1988; Moses, 1995) due to organisational, professional, or personality factors. Organisational factors could include policies and procedures established (or not established) for graduate student supervision, the manner in which these are communicated to supervisors and students, the number of students being supervised, the supervisor's inability to manage a research group effectively, and inadequate support services and/or equipment. Among the professional factors would be a misinformed or inadequately prepared supervisor or a supervisor whose research interests are different from those of the student. Personality factors might involve personality clashes, barriers to communication from age, cultural, or language differences, or personal differences in approach to work.

Brown & Adkins (1988) have suggested that graduate student supervision is probably the most complex and subtle form of teaching in which professors engage. To supervise effectively, one has to be a competent researcher, and be able to reflect on research practices and analyse the knowledge, techniques, and methods that make them effective. The supervisor must help students acquire research skills without stultifying their intellectual and personal development.

Despite the obvious importance and complexity of graduate student supervision, only recently has there been substantial analysis of issues surrounding this topic. What follows is a fairly representative sampling of western literature in the area. The focus is on post-1985 books, monographs, or book chapters, as well as websites of possible interest and value to both supervisors and students. Because of the international interest in supervision, I have chosen resources from various countries.

Graduate Student Supervision

Written Resources

Australian

· Moses, I. (1985). *Supervising Postgraduates. Green Guide No. 3*. Australia: Higher Education Research and Development Society of Australia, c/o University of South Wales.

Reprinted in 1991, 1994, and 1995, this classic resource identifies problem areas in research supervision, and discusses the supervisor's role and the responsibilities of students within an Australian context. It also contains a useful, if dated, bibliography.

· Andresen, L.W. (1997). *Highways to Postgraduate Supervision: A Compilation of Resources for Those Who Supervise Postgraduate Research Students at the University of Western Sydney, Hawkesbury*. Hawkesbury, Australia: The Staff Development Centre, UWS.

An experienced instructional development professional, Andresen thoroughly reviews issues in graduate supervision and lists resources for those who supervise students. Yet another useful Australian document, particularly for students, is:

· Powles, M. (1988). *How's the Thesis Going?* Melbourne, Australia: Centre for the Study of Higher Education.

United Kingdom

· Brown, G. & Adkins, M. (1988). *Effective Teaching in Higher Education*. London: Routledge.

The 'Effective Research and Project Supervision' chapter carefully explores graduate supervision and reviews research and official reports on supervision, and their implications. They provide a model of factors involved in supervision and consider the role of supervisors and the problems faced by students.

· Phillips, E.M. & Pugh, D.S. (1994). *How to Get a Ph.D.: A Handbook for Students and Their Supervisors (2nd ed.)*. Buckingham: Open University Press.

Though useful for both students and supervisors, the main focus is to advise students on how to succeed in their studies. Two other similar books are:

· Cryer, P. (1996). *The Research Student's Guide to Success*. Buckingham: Open University Press.
· Delamont, S., Atkinson, P. & Parry, O. (1997). *Supervising the PhD: A Guide to Success*. Buckingham, UK: The Open University Press.

More recent is an edited volume:

· Wisker, G., & Sutcliffe, N. (Eds.). (1999). *Good Practice in Postgraduate Supervision*. Seda Paper 106, Birmingham: Seda Publications.

This publication considers good practice in supervision from the students' and supervisor's viewpoints, as well as issues and programmes for the training of academics new to supervision. There are also essays on working with overseas students or those for whom English is not a first language. One chapter focuses on the ethical underpinnings of graduate supervision.

North America

· Madsen, D. (1992). *Successful Dissertations and Theses: A Guide to Graduate Student Research From Proposal to Completion (2nd ed.)*. San Francisco: Jossey-Bass.

An excellent book and personal favourite, this practical volume offers examples of outlines, research proposals, and bibliography cards. It is most suitable for students and supervisors in the humanities and social sciences.

The graduate student, who is a teaching/research assistant, and his/her supervisor should check:

· Nyquist, J.D., & Wulff, D.H. (1996). *Working Effectively with Graduate Assistants*. Newbury Park, CA: Sage.

The following volumes are student-oriented, but can profitably be read by supervisors too:

· Locke, L.F., Spirduso, W.W., & Silberman, S.J. (1993). *Proposals that Work: A Guide for Planning Dissertations and Grant Proposals* (3rd ed.). Newbury Park, CA: Sage.
· Ogden, E.H. (1993). *Completing Your Doctoral Dissertation or Masters Thesis in Two Semesters or Less* (2nd ed.). Lancaster, PA: Technomic Publishing.
· Rossman, M.H. (1995). *Negotiating Graduate School: A Guide for Graduate Students*. Newbury Park, CA: Sage.
· Rudestan, K.E. & Newton, R.R. (1992). *Surviving Your Dissertation: A Comprehensive Guide to Content and Process*. Newbury Park, CA: Sage.

The next document is the result of a department-wide student survey by the UCLA Psychology Graduate Student Association, followed by a special forum of faculty and students to discuss mentoring relationships. The resulting guidelines to promote productive and mutually enjoyable partnerships between students and professors are relevant in other disciplines as well.

· Gill, D. (1995). *UCLA Guidelines for Student-Faculty Relationships*. Psychology Graduate Student Association, UCLA.

Canadian graduate supervision resources include two highly recommended journal articles.

· Donald, J., Saroyan, A., & Denison, B.D. (1995). 'Graduate Student Supervision Policies and Procedures: A Case Study of Issues and Factors Affecting Graduate Study'. *The Canadian Journal of Higher Education*, XXV (3) 71-92.

This study stresses the great variation among departments in adopting policies and procedures for graduate student supervision, in the manner and extent to which the policies and procedures are communicated to supervisors and graduate

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Professionalising PhD Supervision:
Schemes for the Accreditation of Supervisors

Professor Pat Cryer

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& Convenor of the Postgraduate Issues Network of the UK-based
Society for Research into Higher Education*

Until recently in the UK, as probably throughout the world, it was considered that academics became 'qualified' to supervise PhD students merely by virtue of having achieved their own PhDs. This is changing, as academics and institutions alike are having to survive in an increasingly judgemental and cost-conscious environment. Initially the focus for change was at the level of undergraduate teaching—with, for example, the onset of staff appraisal and quality assurance. Students became fee-paying 'customers' who generally had no option but to accumulate debts. Then, when going on to postgraduate work and, in consequence, entering into even more debt, they became acutely vocal about receiving value for money. The Quality Assurance Agency produced a code of practice[1] for institutions offering PhD programmes, and academics new to PhD supervision began demanding training as their right. Whispers started circulating about postgraduates taking legal action over poor supervision and institutions having to settle out of court because they were unable to claim that they had given their academics appropriate training to do their jobs properly[2].

Moves towards training supervisors have been evolving for some time in the UK. Nowadays, most institutions minimally run half-day induction programmes on supervision. National groups[3] to support research supervision have emerged, and a variety of print and media-based support materials have come onto the market[4]. Of particular significance are the moves to professionalise PhD supervision, i.e. to provide training such that academics can become formally accredited as research degree supervisors. Three schemes are currently in operation in the UK. Two are run face-to-face on a part-time basis, primarily for the supervisors of the institutions concerned. The oldest, which has been in operation for five years, leads to the *Advanced Professional Diploma in Research Awards Supervision of Leeds Metropolitan University*[5]. The other, which is currently coming to the end of its first year, is the *Postgraduate Certificate in Research Degree Supervision*[6] run by Edge Hill College of Higher Education and validated by Lancaster University. Other schemes are under development, and still more are set in the wider framework of accrediting academics as higher education teachers[7].

The third supervisor accreditation scheme, Training and Accreditation for Postgraduate Supervisors (TAPPS), has enormous potential for embracing supervisors in widely separated institutions and for local customisation worldwide. The accrediting body is one of the UK research councils, the *Biotechnology and Biological Sciences Research Council* (BBSRC), and the accreditation is on the basis of a portfolio that must show evidence of: (1) the attainment of professional standards in specified areas of supervision, and (2) an underpinning of practice with specified professional principles

The photo shows the key people in the three mentioned supervisor accreditation schemes, taken at a meeting on supervisor accreditation hosted by the Postgraduate Issues Network of the Society for Research into Higher Education. From left to right: Dr Peter Mertens (BBSRC); Professor Alistair McCulloch (Edge Hill College of Higher Education); Professor Heather Eggins (Director of the Society); Professor Howard Green (Leeds Metropolitan University); Professor Pat Cryer (University of Manchester and convenor of the Network); Professor Graham King (Southampton Institute, discussion-leader at the meeting); and Dr Paul Clark (Chief Executive Officer of the Institute for Learning and Teaching).

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or values[8]. The portfolio can, in theory, be assembled without training, solely from experience. In practice, though, the assembling process serves to highlight any areas of weakness where participating supervisors may feel deficient and thus demand training.

BBSRC has now formally endorsed its scheme for use in all its research institutes (although a positive decision to participate must be made by each individual research institute), and accreditation of the first cohort from one such institute is currently approaching completion. Furthermore, the scheme is set to enter into the regular university sector via the Faculty of Biological Sciences at the University of Manchester. Support is being provided by BBSRC to develop web-based training materials to ease the introduction of the scheme with supervisors in biological sciences elsewhere.

Supervisor accreditation by portfolio looks poised to take off in a big way, not least because of its flexibility. Because the accreditation is awarded for evidence of the necessary standards and values, irrespective of the nature of any associated training, it can therefore be supported by any provider of training. Furthermore, because the standards and values can be customised to suit the needs and requirements of individual disciplines and institutions,

In March this year, we emailed all NUS students and invited them to submit their views on 'Bad Teaching'. We received numerous replies, some of which were published in the July 2000 issue of CDTLink, *with the hope that these comments will make a difference to teaching and learning at NUS. A second instalment of the student feedback on this topic is presented here:*

Students on 'Bad Teaching' (2)

1. Lecturers do not learn how to use the LT equipment like the video projector, particularly when they use laptops to show CD-ROM films. They should do some homework first.

2. The use of IT is fine, but not over-use. Showing computing codes on the laptop is fine on a one-to-one basis, but not (during computer lectures) when it is projected on the screen where I can't even see the cursor and the codes.

3. Downloading of notes from websites is unnecessary, time consuming and costly, especially when the lecturer puts all the notes on the website and refuses to print other notes. And with no highlights and important points, the website layout is nothing to crow about.

4. The pronunciation and language abilities of lecturers should be improved.

**—Ling Kheng Aik, Jony
Mechanical & Production Engineering, Year 2**

Good teaching is when teachers facilitate identification and internalisation of facts or theories. Simply displaying other people's research findings or statements will only help in increasing the store of knowledge in our brains but not inspire real interest in the topic or subject.

—Anonymous, Arts & Social Sciences, Year 3

Lecturers are sometimes asked to lecture on subjects that they have no experience in teaching. They thus cannot anticipate the likely areas of difficulty and fail to prepare relevant examples that will clarify such misunderstandings.

—Anonymous, Electrical Engineering, Year 3

1. Ever since BIZAD decided to conduct Chinese MBA courses, it made economic sense to employ lecturers and tutors from China. I understand that the Chinese lecturers know their area of specialisation thoroughly. Some of them write very well too. However, the level of English pronunciation for some of them is very inaccurate. Due to their poor English, some resort to reading from the textbook word by word! Some don't even bother to prepare course materials but simply use the textbook (Prentice Hall or McGraw Hill) *PowerPoint* slides.

2. Some lecturers do not bother to change course materials. For group projects or assignments, they simply recycle the previous semester's topic and use old case studies. But students can simply use the Internet and Digital Library to find out what exactly happened in the past and complete the problem definition and recommendation of the case without learning. Some students even borrow case reports from their friends who were in the previous semester's class and 'improve' on their work.

3. Teachers should build rapport and motivate students. Unfortunately, some tutors do not even bother to hang around slightly longer to get to know students after classes, during breaks, or at other opportunities. Given a chance, they rush back to their offices immediately.

4. When the class is huge, you usually get a coordinator and a few tutors to assist the coordinator. However, some coordinators and tutors seem to give conflicting instructions. Some tutors even openly criticise the coordinator's teaching method and style during tutorials and mass lectures! This lowers students' morale.

—Anonymous, Business Administration, Year 3

A bad teacher is one who fails to inspire his students to love or at least gain a passing interest in the subject. A teacher can give me a 1000-page lecture material and tell me that studying it will help me pass an exam, but that won't make him a good teacher. A good teacher provides extra guidance, is willing to listen, and goes the extra mile to make his lesson an hour of learning and inspiration.

Bad teachers are those who make it clear that we students are just an annoyance that they have to live with in order to play in their labs or get a pay check; those who treat the special achievers like gold but ignore the rest of the class; those who give their email address or office location but answer my queries with, "I don't care. It's not my problem." Worst are those who are so caught up in 'not spoon-feeding' that they treat students' questions with suspicion or give guarded, vague answers that leave the students more confused than ever.

In short, bad teachers are educators who make it clear that they have no respect for the people they are supposed to be educating. Underachievers, overachievers, and those in the middle are all people and we have lives outside academia. Sometimes we have problems that prevent us from studying in time for the CA or the tutorial; some of us work; some of us have noisy or broken families. But we are all people who need some respect and feelings of self-worth to survive. So good teachers are those who understand this and are willing to give everyone the respect, understanding, and guidance they deserve.

—Lim Teck Choon, Science, Year 3

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1. During lectures, information is disbursed at breakneck speed (presumably to finish the syllabus in time). There is also not much time after lectures to ask questions. Even if there is, there is not enough time to digest the information, so there are seldom questions. Why have a modular system that tends to force us to cram for exams, after which we forget everything, leaving us unprepared for the real world?

2. The best time to ask questions would be during lectures or tutorials. Unfortunately during tutorials, we are all given problem sheets to attempt beforehand and the tutors usually have to spend the 45 minutes rushing through the solutions. Solutions are then made available on the IVLE and many students lose the motivation to even attempt the tutorials. Why not have more interactive tutorials and lectures?

3. Little effort is made to make the lessons interesting, and more importantly, to make them relate to the real world. Videotapes, slide shows, etc. should be used wherever possible. Jargon should also be avoided.

4. Most importantly, it is feared that most lecturers know that the students do not understand, but they do or can do nothing about it.

—Eng Se-Hsieng, Electrical Engineering, Year 2

The most important thing in teaching is communication. The teacher/lecturer should be able to speak clearly, with a sufficiently loud voice, and avoid sounding monotonous. Important points should be stressed upon, and sufficient accentuation is necessary throughout the lecture. Most lecturers, especially in the Mathematics Department, do not follow this style when teaching. Students find it difficult to comprehend anything at all when the lecturer starts to mumble towards the end of sentences. If clarity of speech is improved upon, this will result in a more enthusiastic crowd of students and improve the quality of work students can produce.

—Subramaniam Sutharsan, Science, Year 1

An example of a bad tutor is one who expects everyone to be able to answer his every question after reading his materials. His expectations being too high, he will flare up and pass hurtful remarks about those who are unable to elaborate further on their one-sentence answers, e.g.:"Are you an Arts student? How can you tell me you cannot elaborate?" Worse, he will then ask a better student (in terms of past exam results) and if he/she cannot answer, he will always find some excuse for him/her, e.g.: "You did not read my materials because you were rushing your thesis, right? I know by your standard you can't be this bad." He not only shows favouritism, he also humiliates the first student. Is he teaching at all? Did he try to lead his students when they have difficulties grasping complex concepts?

—Anonymous, Arts & Social Sciences, Year 4

I find the computing module I'm taking hard to master. Tutorials are supposed to be for us to try hands-on whatever has been taught in the lecture. But most of the time my tutor simply goes through the questions on his own Excel spreadsheet. When we have queries, he often brushes them aside and asks us to go to the online help instead. Well, I know I can do that; but if I have to rely on it to complete my tutorial, I do not see a need to go for tutorial then.

I understand that he's trying to make us learn on our own. However, he does not seem to make an effort to help us when we really do not know how to approach the question. When we ask for help, he will not explain to us how to go about doing the question; instead he chides us for not being able to get the answers and insists that we do not have the solution because we did not pay attention to what he taught in class.

—Anonymous, Business Administration, Year 1

'Bad teaching' occurs when the teacher appears aloof and detached, when he is interested only in delivering a lecture, and is neither concerned with whether the student understands, nor whether his teaching material is engaging and informative.

—Anonymous, Arts and Social Sciences, Year 1

I feel that the lecturers with a strong PRC accent should attend some English language courses. Their teaching is very hard for us to understand, because we hardly know what they are saying. Furthermore, these lecturers will most probably cause students to doze off in class.

—Wong Yew Hoong, Science, Year 3

A bad lecturer is one who:

1. mumbles to himself without realising no one can hear him clearly (perhaps we can let lecturers go through a shortened version of Tech Comm);

2. has a bad command of English;

3. comes late regularly.

—Liow Chin Win
Mechanical & Production Engineering, Year 2

Moody tutors force students to guess whether a particular tutor will respond well to their queries, or snap at them for asking seemingly stupid questions, depending on the 'mood' of the tutor, which can vary from session to session. Also, tutors who live in mental ivory towers tend to treat students condescendingly, e.g. they laugh condescendingly at the students' answers, or they actually make insulting remarks—such an attitude is really uncalled for.

—Anonymous, Law, Year 1

1. Very often, there is communication breakdown between students and many foreign lecturers/tutors, particularly those from China and India. Students find it very difficult to comprehend what the lecturers are talking about because of their accent, ambiguous sentence structure, grammatical mistakes, poor fluency of the English language, and habit of speaking too fast and chunking words together monotonously.

2. Most of the time, students are taught to accept the curriculum blindly. Lecturers can help to stimulate critical thinking in students by encouraging question-asking rather than avoiding the series of questions posed by inquisitive students.

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Students on Bad Teaching (2)

3. To help students understand the application of a particular concept better, it's good to relate it to things around us. Then, students will be able to grasp and memorise the concept faster and easier.

4. Some lecturers like to give out incomplete lecture notes for students to fill in the blanks during lectures. Although this will help the students to concentrate, too many blanks are actually disruptive, as they have to concentrate on copying chunks of notes from the screen and absorbing what the lecturer is saying at the same time.

   —Anonymous, Mechanical Engineering, Year 1

1. Lecture notes with too many grave errors to be corrected.

2. Lecture notes not prepared on time such that students get them only after the lecture.

3. Ill-organised notes (e.g. no clear topics, new formulas popping out without clear definitions of the parameters).

   —Anonymous, Engineering, Year 4

1. Tutors not giving a clear idea about the tutorial answers.

2. Tutors who come to class totally unprepared.

3. Lecturers going too fast, expecting students to absorb new knowledge by some chance.

   **—Soh Ying Ying,
   Business Administration, Year 2**

How can teaching be improved in NUS? The university is where students are taught how to think. It has to create the future; it has to 'instil' the element of creativity in the students. The question is: How? Spoon-feeding and giving the student everything do not promote exploration. Why not cut down on the quantity and focus more on the quality? It is not important how much we know but it is important how we know. Why not take away the note giving and start the mind sieving and thinking?

—Anonymous, Engineering, Year 4

Although some lecturers try to be innovative by using high tech teaching, this may not always be feasible. For example, some lecturers try to conduct quizzes on the Intranet. But there are many accompanying problems, e.g. difficulties in logging in, student discussions, etc. At the same time, the students can be blamed for 'cheating' on the exam, etc. I hope there will not be any further online tests/quizzes.

—Anonymous, Engineering

Improve the format and user-friendliness of notes prepared by lecturers. For instance, some lecturers seldom take into consideration how students may want to arrange their notes. Thus, they may distribute some supplements to us haphazardly, which makes inclusion not easy and the whole collection of notes disorderly.

—Lim Kar Keat, Science, Year 2

The worst teachers I had were those with absolutely no interest in what they are teaching. *Teach*-ers are supposed to *teach*. Making students do repetitive exercises and spoon-feeding them too much knowledge kills any independent thinking.

—Tan Chui Hua, Arts & Social Science, Year 2

1. Lecturers tend to turn lectures (especially those with text-heavy *PowerPoint* presentations) into copying sessions. Why not upload the notes on the Net so we can just come to the lecture and listen?

2. More could be got out of tutorials if the tutor has skills to start the discussion. Perhaps training to be an effective tutor is required.

   —Anonymous, Arts & Social Sciences, Year 1

I am very disappointed with the lecturer of a maths module I tried to do during the special term. On the first day of the lesson, the lecturer changed the venue from LT 24 (the original LT) to LT 23 because the OHP in LT 24 was down. He did not have the initiative to inform those students who might be late. Those of us who were early proceeded to LT 23. Without giving us his name, contact number, email, lesson outline, and the distribution of the percentage between CA and the exams, he immediately started to teach. As he taught, he wrote on transparencies which he did not prepare beforehand. Only in the middle of the lecture did he tell us his name. Throughout the lesson, he did not give us any example to illustrate the theorems, etc. All of us were very busily copying. At the end of the lesson, when we went to ask him about the number of tests and dates, etc., he said that he did not know. At the second lesson, he was late for twenty minutes. I cannot believe that a 'professional' teacher can be so disorganised, especially for a special term module when time is so precious.

—Anonymous

Some tutors/lecturers in certain more competitive faculties forget that even within their faculty, there can be different levels of abilities. Some are unforgiving of mistakes—wrong answers at tutorials can invite comments like: "What are you doing here?" Other lecturers haul students up when they fail a test, giving negative feedback like: "If you go on like this I don't know how you're going to get your degree." Ironically, some are from professions in which tact and diplomacy is part of the job! In an already competitive environment, it's already hard enough to cope with bad grades; uninvited comments like that could destroy one's confidence.

—Anonymous, Medicine, Year 2 ∎

TEACHING for TRANSFER

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What is 'transfer of learning'?

'Transfer of learning' is the use of knowledge and skills (acquired in an earlier context) in a new context. It occurs when a person's learning in one situation influences that person's learning and performance in other situations. When transfer of learning occurs, it is in the form of meanings, expectations, generalisations, concepts, or insights that are developed in one learning situation being employed in others (Bigge & Shermis, 1992).
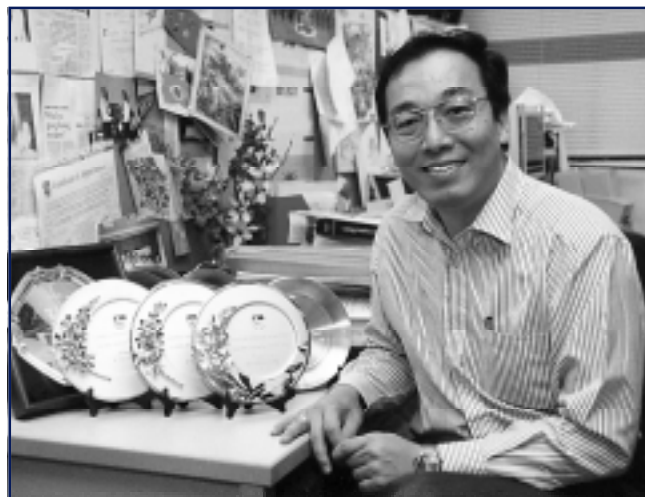
Why is transfer important in education?

Transfer of learning is the cornerstone upon which education should ultimately rest. In its broadest sense, transfer of learning is basic to the whole notion of schooling. If there is no transfer at all, students will need to be taught specifically every act that they will ever perform in any situation (Bigge & Shermis, 1992).

What are the barriers of transfer and how can transfer be promoted?

Many teachers believe the goal of instruction is to help students learn the material as efficiently as possible or the teacher is responsible for covering each of the topics in the curriculum. When they set questions to assess students' learning outcome, no attempt is made to demand a high level of cognition from the students. So, students become rote learners, and never bother about transferring what they have learned to other situations. The knowledge is 'there' in memory, but students do not know how to make good use of such knowledge in situations outside the classroom. In contrast, when the goal of instruction is 'meaningful learning', the appropriate tests of learning outcomes include both retention and transfer. Teachers who hold this view will agree that students need to apply what they have learned to solve new problems.

Under what condition will transfer occur?

A person is in the best frame of mind for transfer to occur when he/she is aware of acquiring meanings and abilities that are widely applicable in learning and living. However, important as this is, it is not enough. A person must also want to solve new problems, or approach new situations and take risks, in the light of the insights gained through previous experience. For transfer to occur, individuals must generalise, i.e. perceive common factors in different situations; they must comprehend the factors as applicable and appropriate to both situations and thereby understand how a generalisation can be used; and they must desire to benefit by the sensed commonality (Bigge & Shermis, 1992). Teachers can act as guides and prompters to "shepherd" knowledge and skills from one context to another (Forgarty et al., 1991).

There are always 'some things' that 'somehow' we wish the students to be able to transfer 'somewhere'.

To uncover the sources within our curriculum that provide fertile ground for relevant student transfer, we must "selectively abandon" and "judiciously include" curricular components (Costa, 1991). It is the work of a skilled teacher to find the 'some things' worth teaching. These would include "knowledge", "skills", "concepts", "attitude", "principles", and "dispositions" (Forgarty et al., 1991). A topic worthwhile as a candidate for transfer must have potential significance in other areas. There are three areas for consideration in this regard: (1) significance within the discipline, (2) societal significance, and (3) student needs, interests, and aspirations (Forgarty et al., 1991).

Perkins & Salomon (1988) introduced two broad mediation strategies for transfer that they call "hugging" and "bridging". Hugging serves an automatic kind of reflexive transfer. It involves making the learning experience similar to the situations to which one wants transfer to occur. Strategies that belong to this category include *Setting Expectations*, *Matching*, *Simulating*, *Modelling*, and *Problem-based Learning* (Fogarty et al., 1991). Bridging serves reflective transfer. Bridging means helping students to make generalisations, monitor their thinking, and be thoughtful in other ways that foster mindful connection-making. Strategies involved are *Anticipating Application*, *Generalising Concepts*, *Using Analogies*, *Parallel Problem Solving*, and *Metacognitive Reflection* (Fogarty et al., 1991).

To facilitate the development of transfer skills, we have to help students to see the 'somewhere' of transfer. Within a course, links can be highlighted between previous or subsequent lessons. Within a discipline, it can be targeted at different areas. Or, efforts can be made to show students how materials learned can be transferred between disciplines. Ultimately, the most important target of transfer is life situations. It would be difficult to justify any achievement of school learning that had no bearing upon students' future learning and life situations.

7

CALL FOR REGISTRATION

Following the success of CDTL's 1st Symposium on Teaching & Learning in Higher Education (6-7 July 2000), CDTL is now coordinating two other events:

1st ASEAN Conference on Problem-Based Learning in Health Sciences

Theme: PBL - Issues & Challenges
Dates: 20-22 November 2000
Venue: Clinical Research Centre Auditorium,
         Faculty of Medicine, NUS

In conjunction with the Faculties of Medicine and Dentistry, CDTL is organising this conference to promote the sharing of ideas and experiences among health science educationists and PBL practitioners from the Asia-Pacific region, Canada and Europe. Several experienced PBL practitioners have been invited to conduct plenary lectures and workshops, such as Associate Professor Jacques Corcos (McGill University), Professor Louise Samson (University of Montreal), Dr Scheltus J. van Luijk (University of Maastricht), and Professor David Kwan (McMaster University). Colleagues from Singapore, Thailand, Taiwan, Malaysia, the Philippines, Australia, and Hong Kong will also share their experiences in implementing PBL. Other highlights include a meeting to consider the formation of an Asia-Pacific PBL society and a round table discussion of deans from various universities on the topic of 'Changing to PBL: Issues and Challenges'. More information about the conference can be found at *http://www.cdtl.nus.edu.sg/asean-pbl/*.

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Mr J.A. Gilles Doiron (CDTL) and Mr Eugene Hiew (CIT) at iGRID 2000 (Yokohama, July 2000)

The Faculty of Medicine, Centre for Instructional Technology (CIT), and Centre for Development of Teaching & Learning have collaborated together to produce a prototype anatomy pre-dissection Lecture-on-Demand (LoD), *The Abdominal Wall & Inguinal Canal*. Posted on the NUS Integrated Virtual Learning Environment, this LoD delivery allows students to take more responsibility for their learning and enables them to have greater control over their

Description of LoD features

e-Education: Environments, Effectiveness, Economics, Expectations

Date: 9 January 2001
Venue: NUS Guild House

With the recent spread of e-Education at all levels in Singapore, various parties have tended thus far to work independently with only some informal interaction. Consequently, this one-day symposium, open to educators and IT professionals at various local educational institutions, aims to provide a unique and timely forum for information sharing, collaborative planning, and discussion of how institutions might best work together to maximise their efforts in e-Education. The symposium will explore the implications of online teaching and learning, e.g. its features, how to develop and maintain a suitable infrastructure, how to assess online learning, the costs of implementing e-Education, as well as the future of e-Education. Speakers have been invited from NUS, Temasek Polytechnic, Singapore Polytechnic, National Institute of Education, Institute of Systems Science, Ministries of Manpower and Education, and other organisations. For more information about the conference, please check: *http://www.cdtl.nus.edu.sg/e-ed/*.

Alternatively, you can also address your queries about either event to:
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Calling All Writers...

CDTL is looking for articles on any teaching and learning topic for its various newsletters and information sheets. The specifications for each publication is as follows:

· CDTLink (700 words maximum per article; photos & illustrations in hard/digital copy are welcomed)
· CDTL Brief (text only newsletter; 1000 words maximum per article)
· Ideas on Teaching (text only information sheet; 500 words maximum per article)
· Successful Learning (text only information sheet; 500 words maimum per article)

To submit articles for consideration or to find out more information, please contact:

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On the Cutting Edge of Educational Media

time schedule. It provides a clear and well-structured presentation with added graphics and text. In general, students have shown wide support for this new learning resource.

This past summer has been a busy time for the development team. Our presentation, 'Anatomy on the Cutting Edge: Pre-dissection Lecture-on-Demand at the National University of Singapore', has/will have been featured at five conferences this year. The prototype was featured as a poster/demo at:

· ED MEDIA 2000 World Conference on Educational Multimedia, Hypermedia & Telecommunications (Montreal, Canada, June 2000); and

· iGRID 2000 showcase of Internet 2 applications (Yokohama, Japan, July 2000).

Full papers on the prototype were/are being presented at:

· University Surgeons of Asia 4th Scientific Congress (Singapore, May 2000);

· CDTL's 1st Symposium on Teaching and Learning in Higher Education (Singapore, July 2000); and

· International Conference on Computers in Education/International Conference on Computer Assisted Instruction 2000 (Taipei, Taiwan, November 2000). ■

Promoting STANDARD ENGLISH

Students participating actively during a PROSE workshop (August 2000)

NUS has played an active part in the nationwide Speak Good English Movement since its creation of a Promotion of Standard English (PROSE) committee in November 1999. Consisting of representative members from the various NUS faculties, Office of Student Affairs, Centre for English Language Communication, and CDTL, PROSE works in coordination with the Ministry of Education's steering committee, ENTHUSE (Encouraging the Use of Standard English). The goals of PROSE are:

· to develop and implement an action plan to promote strategies that would emphasise the use of internationally intelligible and accept-able English for academic discourse and for the workplace; and

· to create an informed awareness among the members of the NUS community regarding the importance of this variety of interna-tionally acceptable English for effective teaching and learning, and for the success of our students in their studies now and in their professional lives.

After nine months of laborious planning, PROSE Week, consisting of a series of events promoting the use of Standard English, was held during 14–19 August 2000. CDTL's involvement in PROSE included designing the PROSE logo, creating the PROSE webpage, organising and hosting PROSE workshops, as well as assisting in the production of the PROSE jingle. Judging from the overwhelming response from students and the number of enquiries from staff about PROSE workshops, CDTL is glad to have played a part in the promotion of Standard English in NUS. ■

Students listening avidly to a PROSE workshop presentation (August 2000)

How NUS Students Learn:
Finding Out Over the Years

During July and August 2000, CDTL administrative staff members, under the leadership of Research Assistant Ms Chandrama Acharya, were a familiar sight at lecture theatres across NUS. With the kind cooperation of various lecturers, we were handing out survey forms to as many First Year students as possible at the end of lecture periods. Completed usually within 15 minutes, the survey consisted of 2 sections: (1) a Study Process Questionnaire to discover how students approach learning; and (2) a Survey of Needs for Achievement to assess what motivates students to achieve.

This CDTL study is not a one-off affair. Aimed at creating a comprehensive profile of the NUS student, it is a 3-year longitudinal study that is supported by a substantial research grant from NUS. The 2000/2001 cohort will be surveyed annually throughout their stay at NUS, the last review to be carried out in 2003. In this way, we hope to understand how students perceive learning at the beginning of their tertiary education as well as find out if the students' experience in NUS will have an effect of his/her approach to learning. To complete this massive undertaking, we at CDTL look forward to the continued support and cooperation of all NUS teaching staff over the next few years. ■

TEACHING & LEARNING highlights

Faculty of Arts & Social Sciences

### Using Astronomical Models to Promote Critical & Creative Thinking

A website on Astronomical Models has recently been created for the course PH2201 'Introduction to Philosophy of Science', exposing students to multicultural traditions of cosmology (including Chinese, Indian, Arabic, Egyptian, and Mesopotamian cosmological models). As the beginning of a wider project to cover multicultural contributions to mathematics, physics, chemistry, and biology, the website aims to raise questions about acceptable modes of inquiry to generate scientific knowledge by appealing to a multicultural message about the nature of such knowledge. Since the exercise itself is shaped by the medium of information technology, this effort attempts to integrate the medium (IT) and the message (multiculturalism) to promote

Home page of website on Astronomical Models

examination of scientific modes of inquiry. The website will be developed more extensively and incorporated to teach a forthcoming course on 'Scientific Method and Strategies of Critical and Creative Thinking' for the Core Curriculum Honours programme. ■

Faculty of Business Administration

Fostering Active Learning through IVLE Discussion Forum
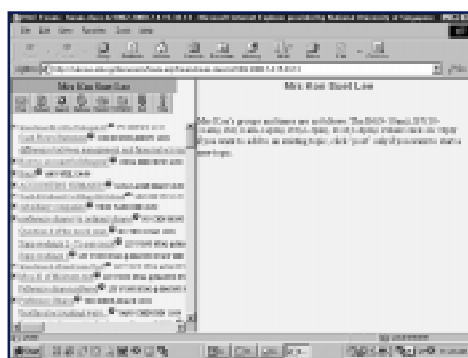
Sample usage of the IVLE Discussion Forum in introductory BBA accounting course

Based on personal experience, we at the Finance & Accounting Department felt that learning is most effective when there is self-discovery and peer discussion. Hence, we incorporated the Integrated Virtual Learning Environment (IVLE) Discussion Forum into the learning and assessment package of the introductory BBA accounting course during the January 2000 semester to encourage students to learn from each other through discussion of issues raised by fellow students and instructors. We split up the large class into four separate forums with a course tutor in charge of each forum. In the course outline, students were told very clearly to pose course-related questions in their respective forums and seek peer opinions first before consulting an instructor. Given the Forum's experimental nature, forum participation was worth up to 5% of the total course assessment. At periodic intervals, each tutor assessed the quality of the contribution of each student (as opposed to quantity) by reviewing the messages posted. Tutors also facilitated discussion by occasionally steering discussions back on track and posing relevant questions to get students to think beyond the confines of the course. In general, both students and instructors welcomed the Discussion Forum. Having gained some confidence from the initial experiment, the team teaching the course during the July 2000 semester has increased the weighting for the forum to 10%. ■

Faculty of Medicine

### Physician Development Programme

The medical curriculum has been revised in response to a tremendous surge in new medical information and changing societal needs. The Physician Development Programme (PDP) in the new medical curriculum aims to enhance the art and the science of medicine. The objective is to blur the traditional divide between the pre-clinical and clinical years. Year One students are given early clinical exposure to experience the application of basic medical science in medicine and hence impart relevance to what they are learning. It will also enable students to see medicine as a whole and provide an early start to their professional development by exposure to humane attitudes, ethics, and good communication skills. Using common medical problems, the students are tutored in small groups by clinical teachers in interacting with patients and applying their medical knowledge. This is an important means of achieving the final objective of producing intelligent, competent, and caring doctors. ■

A typical PDP session in the ward

Faculty of Science

IT Instructional CD-ROMs for Science Students & Staff
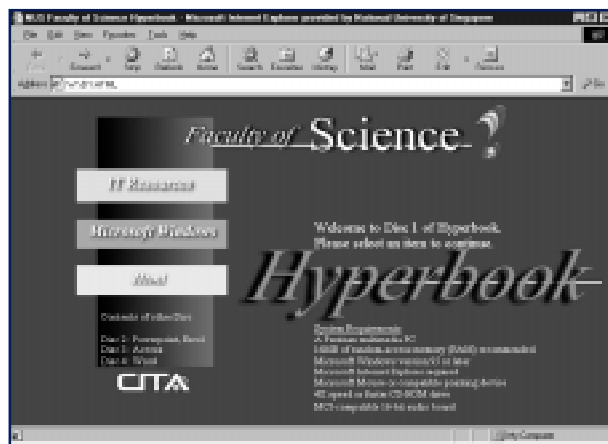
Learning IT skills from Science Faculty-created CD-ROM

As the number of Science modules with supplementary IT-based components increases, it is vital that students are not only computer literate, but also have the essential IT skills to cope with this new trend. Consequently, the Faculty of Science has developed a set of four instructional CD-ROMs containing information on IT resources and presentations on how to use *Microsoft Windows*, *Word*, *Access*, *Excel*, *PowerPoint*, email and internet facilities, as well as HTML programmes for web publishing. The delivery is in multimedia, including text, music, voice, animation, and demonstrations. Evaluated by experts on campus, this CD-ROM set makes it easier for our students to acquire IT skills through the use of a playback facility, not found in traditional learning from user guides. As of July 2000, these CD-ROMs have been widely distributed among Science students and staff, and are also available at all NUS libraries. ■

Literature Review Groups in SPS

Into its fifth season now, the Special Programme in Science (SPS) encourages students to explore science and pursue their interests through a variety of learning modes, e.g. problem-solving sessions, seminars, fieldwork, projects, and literature review groups. While the term 'literature review group' may seem mild, the host of activities that takes place under its auspices constitutes a formidable educational experience. Students and their mentors discuss and debate current efforts and achievements in an area of scientific endeavour of their choice. Adequate preparation for these powwow meetings entails careful readings of published literature, dialogues with scientists, doing background checks in laboratories, and synthesising the information and at times conflicting claims in a coherent manner. During a group meeting, members often indulge in heavy exchanges where ideas and hypotheses are put forth by some and severely challenged by others on the basis of current

Dr Lim Saw Hoon makes a point about the robustness of different plant species

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knowledge and plausible extrapolations. Such activities cultivate the students' ability to comprehend and evaluate research work, and demand that they accomplish the homework that enables them to defend their views and positions rigorously. Topics for the various groups this semester include how plants flower, chemistry and genes, science and consciousness, and sex and violence in the insect world. ■

Training Graduate Tutors in the Mathematics Department

Participants of Mathematics Department Graduate Training Workshop (September 2000)

At the Department of Mathematics, we are very concerned with the quality of our teaching. So for the last two years, we have conducted a Graduate Tutor Training Workshop every year. Through this workshop, we wish to focus on issues specifically related to the teaching of mathematics, thereby supplementing the University's course for graduate tutors. We also believe it is important for the department to monitor our graduate tutors. During the workshop, the workshop facilitator and graduate tutors first meet for one hour and talk about general teaching issues. Next, all the tutors are each videotaped for about 5 minutes while conducting their respective tutorials. Another meeting is then arranged during which the facilitator and tutors review and discuss the tapes. This opportunity for tutors to watch themselves and other tutors has contributed to the success of these workshops. Presently, the department is expanding the use of graduate students for teaching, making this programme even more important. ■

Graduate Student Supervision

students, and in the importance accorded to a variety of factors which contribute to the process of supervision (e.g. supervisor's knowledge of field, time to degree completion, sensitivity to student problems). The authors also highlight the ambiguity in the definition of graduate student supervision, and hence in the delineation of corresponding responsibilities.

· Holdaway, E.A., Dubois, C., & Winchester, I. (1995). 'Supervision of Graduate Students'. *The Canadian Journal of Higher Education, XXV* (3), 1-29.

The authors report on ten practices perceived to be the most important in assisting students to successfully complete theses in an appropriate time and pass the final oral examination.

Other Useful Resources

In North America, the UK, and Australia, national bodies have been concerned about graduate study and supervision, and have published helpful documents/reports. One such publication is:

· The American Council on Graduate Schools (1990). *Research Student and Supervisor: An Approach to Good Supervising Practice.* Washington, D.C.: Council of Graduate Schools.

Adapted from one with the same name published in the UK by the Science and Engineering Research Council, it was modified to make it more relevant to the North American context and to broaden it beyond the sciences and engineering. The booklet provides a handy checklist on 'Good Supervisory Practice' and a useful list of further readings. The Council of Australian Postgraduate Associations has produced a similar set of guidelines.

My two favourite websites concerning graduate student supervision include:

· *http://s11.stanford.edu/projects/tomprof/ newtomprof/postings/145.html*

An entire section of the postings on this listserv/website, *Tomorrow's Professor*, is concerned with the supervision and direction of graduate students and would interest both supervisors and students. *Tomorrow's Professor* can help you stay abreast of developments in the area. The other is:

· *http://www.geocities.com/SiliconValley/Lakes/ 6007/Survival.htm*

This website provides a graduate student survival kit of value to both student and supervisor.

A useful resource on graduate supervision is an excellent series of videotaped scenarios on aspects of supervision that promote discussion of issues and problems in graduate supervision. The video entitled *Supervision Scenes: Identifying Keys to Success* can be purchased from:

Centre for Teaching and Academic Growth
University of British Columbia
Vancouver, British Columbia V6T 1Z2
Canada

Last but not least, the University of Ottawa's Centre for University Teaching, for example, organises workshops and discussion sessions focused on graduate student supervision each year. The purpose is to foster communication and mutual understanding of all aspects of supervision and to develop and clarify a framework for supervision and learning which will facilitate student development and enhance supervising practice. Perhaps your instructional development centre or graduate school provides similar opportunities. If so, be sure to make use of such resources. ■

Professionalising PhD Supervision

professional bodies and universities can adapt the scheme so that they can themselves act as accrediting bodies, either in association with BBSRC, or in their own right.

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1. Quality Assurance Agency. *Code of Practice for the Assurance of Academic Quality and Standards in Higher Education: Postgraduate Research Programmes.* Gloucester: QAA, 1999. See *http://www.qaa.ac.uk*.

2. Based on anecdotal evidence in a range of institutions across the UK.

3. Such as the SRHE Postgraduate Issues Network (*http://www.cryer.freeserve.co.uk*) and workshops run by the UK Council for Graduate Education (*http://www.wlv.ac.uk/ukcge/info/info1.htm*).

4. See for example, the SRHE/THES series of Guides (*http://www.cryer.freeserve.co.uk/guides.htm*). The 'further reading' sections provide extensive reading lists.

5. See *http://www.lmu.ac.uk*.

6. No website available. For further information, contact Professor Alistair McCulloch at *mcculloa@edgehill.ac.uk*.

7. See the various accreditation schemes of the Staff and Educational Development Association (*http://www.seda.demon.co.uk*) and the recently formed Institute for Learning and Teaching (*http://www.ilt.ac.uk*).

8. See *http://www.jablbsrc.ac.uk/TAPPS*.

Teaching for Transfer

In conclusion, for transfer to occur at its highest level, we must help students understand many widely useful relationships, principles, or generalisations. We must foster students' sensitivity to recognise the presence of opportunities for transfer; and we must encourage students to embrace goals, attitudes, and ideals that support the conviction that progressive refinement of outlooks on life is possible and commendable.

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12

Building a Learning Community in Cyberspace through Electronic Bulletin Boards

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National Institute of Education
Nanyang Technological University

Introduction

Shaffer & Anundsen (1993) talk about the eternal human yearning for kinship, community, and connection to a greater purpose, which has taken on a very different dimension in the age of Internet. Today, communities are formed around issues of identity and shared values (Pallof & Pratt, 1999), rather than spatial considerations (Pallof & Pratt, 1996). A community may be defined as a dynamic group of people who see themselves as part of a bigger whole with some shared purpose, exchange ideas, take some shared and joint decisions and, for the purpose of the shared goals, are interdependent. With the advent of electronic communication and cyberspace, the use of online communication tools in higher education is increasing rapidly (Funaro, 1999) such that this feeling of 'community' is being realised in a specific manner particularly in the field of distance education. Based on my experience of creating university modules and online distance learning courses, this paper looks at how the use of electronic bulletin boards is redefining the way learners communicate and take the stewardship of the learning environment.

Computer-mediation in Community Building

Building of learner communities in cyberspace is usually driven by the requirements of the learning programme. The success of any online learning environment depends not only on the provision of two-way communication between teacher and the learners (The California Distance Learning Project website, 1997), but also the interaction among students themselves, as such collaboration develops a sense of belonging to the common cause of knowledge enhancement (Palloff & Pratt, 1999: 5). In a typical learning environment, the students are expected to explore the content collaboratively and interact among themselves. But due to the absence of face-to-face interaction in distance learning, a computer-mediated vehicle for online discussion becomes a necessary backbone of the learning package. The advantages of an online electronic discussion via a bulletin board over a face-to-face session are many:

- Shy students, who are reluctant to engage in face-to-face discussions, can participate without feeling dominated by the more vocal members of the learning community.
- The asynchronous nature of a bulletin board discussion allows reflection and more in-depth reaction to an issue than impromptu responses in a classroom situation.
- The not-so-initiated can delay their responses, unlike face-to-face classroom situations that demand instantaneous responses from the learners and may alienate shy students.

Uses of Online Bulletin Boards

Whether for an online or a regular campus-based course, I think that electronic bulletin boards can enhance the learning experience and complement the other educational activities within the course. I have been using bulletin boards, employing both free services (Voyforum.com, and Network54.com) as well as the Nanyang Technological University's subscribed forum (Blackboard.Inc.) for sometime in the following manner:

1. **Summaries of readings:** Students need to post their reading summaries on a weekly basis. Summaries are not graded. But since these are posted publicly, students are more prompt and responsible. It also allows students to learn from others' work.

2. **Student-led discussions:** Students are asked to post and lead discussion topics. This extends communication time, is learner-oriented, teaches students how to pose good questions, and sets them thinking.

3. **Peer learning:** As the students' own space, the bulletin board encourages student exchanges. It helps them to handle difficult topics and negotiate difficult concepts, thus facilitating a kind of collaborative learning not possible in a regular classroom situation.

4. **Communication anytime, anywhere:** As an asynchronous discussion platform, the bulletin board allows students to post prepared responses, as opposed to 'on the fly' responses in class. This is pedagogically sounder and has greater impact on the learning process.

5. **Allows the instructor to see the student weaknesses like never before:** By monitoring bulletin board discussions, instructors can catch misconceptions and gauge students' level of understanding on a particular topic. *(see Fig. 1 overleaf)*

6. **Generates tutorial topics:** Tutorial topics are decided based on the ongoing discussions, thereby facilitating student-centred learning. *(see Fig. 2 overleaf)*

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Building a Cyberspace Community...

Date Posted: *16:45:51 08/24/99 Tue*
Author: chenyee
Subject: Re: (XSS229/3A)/Drainage Basin
In reply to: sharon tan's message, *"Re: (XSS229/3A)/Drainage Basin"* **on** *16:45:51 08/24/99 Tue*

> ok…hi everyone…
> i have a question
> Dr Chatterjea, in your lecture on drainage basin,
> you mentioned that areas with resistant rocks have
> widely spaced streams and very few as well, why is
> this so?

resistant rocks refer to rocks with fewer lines of weaknesses, more resistant to weathering and lower porosity. therefore the water that flows over a plane of more resistant rock will take a greater effort to etch out channel to develop into a river.

vice-versa, weaker rocks are more easily carved out by erosional action of water. thus within a unit area of land, the one with weaker rocks are more susceptible and thus has a higher drainage network density.

am i right?

[Next Thread Previous Thread Next Message Previous Message**]**

Fig. 1: In response to classmate Sharon Tan's question, Chen Yee replies, but also asks for confirmation from the lecturer, creating a web of guided peer-learning where the instructor can keep track of students' understanding.

Date Posted: *18:40:16 09/04/00 Mon*
Author: <u>Jeryl Sim</u>
Subject: Re: Streamflow matters
In reply to: Dr. Chatterjea's message, *"Streamflow matters"* **on** *18:40:16 09/04/00 Mon*

> Look out for discussion questions on this topic. You
> may start your own – any doubts, queries,
> observations etc.
Dr Kalyani,
The tutorial question you'd given us, the part abt finding manning's ration is alittle problematic. I have difficulty finding the wetted perimeter, itz not given. In the end i'd assumed wide channel to avoid using the A/P equation for the R. Guess maybe you could go through the tutorial with us again before the exam?

[Next Thread Previous Thread Next Message Previous Message**]**

Follow-ups to this message:

· <u>Re: Streamflow matters</u> – Dr. Chatterjea, *02:23:41 09/15/00 Fri*

Fig. 2: Student generates tutorials, and thus, exerts control over the learning environment.

Making Effective Bulletin Board Discussions

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At present, the concept of cyber-communities and online learning is still catching on. However, novelty wears off fast—it is easy to lose contact in an online, distance-learning environment unless interest levels are maintained. To sustain the effectiveness of electronic bulletin boards and build learning cyber-communities, I have tried the following:

1. The bulletin board activities are fully integrated within the course, although additional spaces are created as and when it is necessary.

2. Students are assigned specific tasks and schedules.

3. Forum topics are related to specific lecture and lab assignments.

4. Regular references are made to bulletin board discussions during lectures. This persuades even the most reluctant student to participate in the online learning activities.

5. If students are lost during posting of discussion topics, help is provided. Regular checks are also made to monitor the lines of discussion and bring wayward discussions back on track.

6. Regularity is essential for the sustenance of the environment. Consequently, bulletin board activities need to be kept ongoing.

7. Take it seriously. Students will then show interest too.

In my experience, once students are initiated to such an environment, they make very good use of this platform. But to keep a bulletin board in its most effective dynamic state, it must be stressed that the instructor has to provide many hours of regular online support. This can escalate the workload, which cannot be reflected under most systems of staff appraisal.

Conclusion

As social communication is essential for learning, electronic bulletin boards provide an excellent platform for the creation of learning communities for students of both on-campus and distance-learning courses. An online community cannot be created or sustained by one person. But once the instructor initiates it, careful planning and regular maintenance can extend and enhance the learning environment. In my view, electronic bulletin boards far outshine the capabilities of face-to-face discussion sessions, which may be limited by predetermined personal characteristics or even by spatial and temporal constraints. Being almost free from personal bias, and also being available anytime, anywhere, seem to be big points in favour of this computer-mediated community development.

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    tion?'. 1997. *http://www.otan.dni.us/cdlp/distance/whatis.html*.
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PowerPointitis: The Disease & Its Cure

Dr Winston Tan

Department of Oral & Maxillofacial Surgery

There is a disease of epidemic proportions at our doorstep. It is known as ***PowerPointitis***. You may laugh, as you are likely to be familiar with Microsoft PowerPoint®. The manufacturer promises that this software can provide the tools you need to make your point—powerfully. But in all seriousness, does it truly do so?

Definition & Clinical Features

PowerPointitis is a disorder arising from the dependence on the *PowerPoint*® computer programme for the purpose of making presentations/lectures. At one point or another, most *PowerPoint*® users have succumbed to this disease. ***PowerPointitis*** affects both men and women to the same degree. But Subtype I, also known as 'Technopointitis', has a predominant male prevalence.

The main result of ***PowerPointitis*** is a disinterested audience. The receivers of *PowerPoint*® presentations often manifest symptoms that may include headaches, blurred vision, loss of concentration, drowsiness and lethargy. (Several rare cases of hallucination and irrational behaviour have also been reported. But these seem to be related to a separate disease known as the 'Pokemon Phenomenon'.)

Various Subtypes of PowerPointitis

· **Subtype I: 'Technopointitis'**

One of the more insidious forms of *Powerpointitis*, 'Technopointitis' is believed to occur most commonly among men and advanced users of the programme. It commonly involves the frequent use of *PowerPoint*® functions such as 'custom animation', 'hyperlink', and 'movies and sounds'. The main complaint from audiences is that it takes too long to load something that is not worth viewing. A simple example of 'Technopointitis' is as follows:
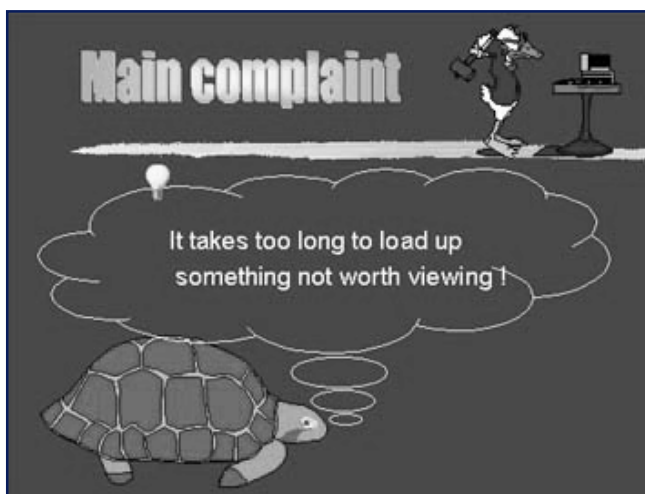
· **Subtype II: 'Textus Numerus'**

'Textus Numerus' is a very common condition, consisting of having too much to say in a single slide. An important aspect of *PowerPoint*® is to put things in point form. However, not everybody comprehends this point, as illustrated in the next column:

'Textus Numerus' has several unfortunate effects. First, the focus of the viewer shifts from the speaker to the wall. Second, the student viewer is suddenly confronted with a difficult dilemma: to frantically start copying everything on the slide, or to cut losses and catch up on some lost sleep from the party the night before. 'Textus Numerus' affects each individual differently, and this stratification is most often seen from the front to back of the lecture hall.

One commonly used treatment for the copying problem is to print handouts with six slides on each page. This is not recommended as it produces a large amount of waste paper with tiny unreadable text.

· **Subtype III: 'Visualitis'**

This disorder results from gross misconceptions and too much choice of variations. 'Visualitis' presents itself in many forms:
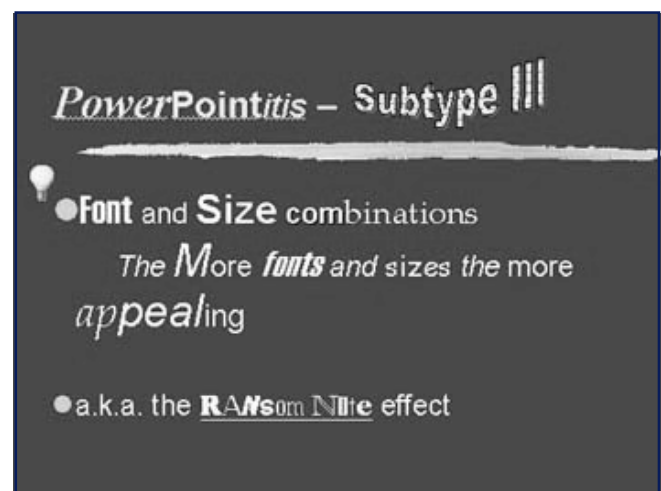

1. There is a misconception that the more types of fonts and sizes used in a single slide, the more appealing is the text. Unfortunately, a Ransom Note effect is obtained, which by most standards, is highly unattractive.

2. Colour, discretely used, can provide emphasis and interest. However, there is a misconception similar to the above

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PowerPointitis

point whereby the more colours are used in a single slide, the more attention-grabbing the effect. Instead, nausea usually results.
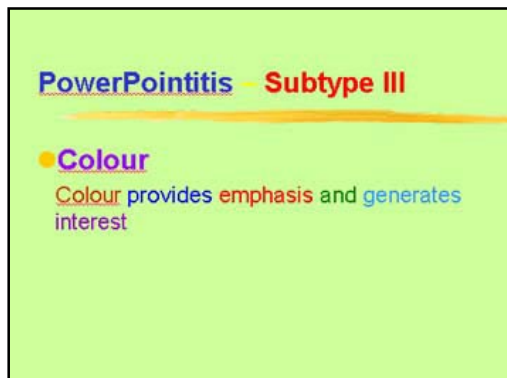

3. The choice for backgrounds is now limitless. Although some slides are fun to make, they can sometimes distract, rather than enhance one's text.
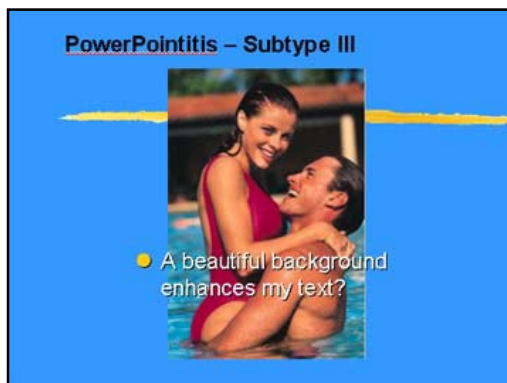
· **Subtype IV: 'Lost in Space' Syndrome**

Although *PowerPoint*® is aimed at helping an individual to organise his/her presentation, it is very often difficult to know where exactly you are in the presentation, due to the slickness of the programme and the likely ineptitude of the presenter. While it is possible to move around and skip slides in *PowerPoint*®, anyone who has tried to do so will tell you that it is not an easy task.

Printed in Singapore by First Printers Pte Ltd
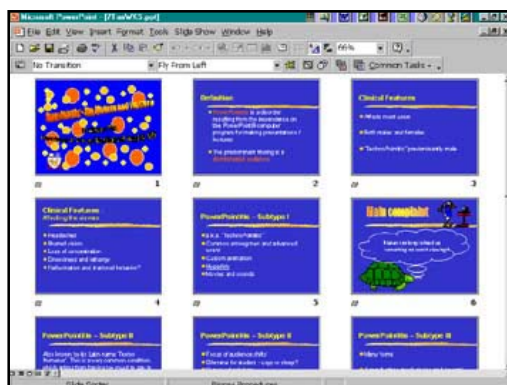
The Cure

Sufferers of the disease need fear no more. There is hope in the form of a triple vaccine, or a set of guidelines one can follow when using *PowerPoint*®:

· **Simplify the Message**

Take note: "Less is more." Very often, we are so keen to include as many things as possible into a lecture that we forget a single point is remembered more clearly than many points. It is far easier to put in many details than to be selective. However, we need to filter out what is essential to know, as opposed to what is good to know.

· **Simplify the Slides**

The lecture/presentation is all about communication. When our slides are cluttered or distracting, we lose our link with the audience. Once lost, it is difficult to regain the audience's attention.

· **Understand the Limitations of *PowerPoint*®**

It is very important to understand the limitations of this software programme. Despite its progressive image, *PowerPoint*® can be a rather poor interactive medium as it is difficult to change the direction of the presentation once it has begun. In contrast, more 'ancient' methods such as overhead projectors and blackboards possess comparatively easier and more interactive capabilities. The *PowerPoint*® format is also often too simplified a means to convey one's message entirely, as demonstrated by the impossibility of understanding most printed *PowerPoint*® handouts.

Conclusion

When using *PowerPoint*®, we teachers have to keep in focus the objective of our presentation: are we trying to teach, or are we trying to showcase our prowess with technology? If we are to teach effectively, then let us learn how to master a tool such as *PowerPoint*® so that students will understand and receive our presentations well. In this way, *PowerPoint*® will then exist to empower, not overwhelm, us. ■