

TEACHING PSYCHOLOGY IN LARGE CLASSES: An international survey of solutions

ED500 Final Report

Graduate Certificate in Education (Higher Education)

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“The introductory course is the most important course in the [Psychology] curriculum. It is also the most difficult course to teach well.”

-Benjamin, L.T. (1991), in *Teaching of Psychology*, v.18, p. 69

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Abstract

The aim of this ED500 project was to create an overview of problem solutions for teaching a large first year Psychology subject. This project was motivated by an immediate need to make changes to the existing structure of first year Psychology at the University of Queensland. The problems faced by first year Psychology at the University of Queensland are typical problems of any large first year subject, including problems of student apathy and feelings of isolation, lecturer feelings of being overwhelmed, problems of creating small group learning for large numbers, and assessing large numbers of students sensitively. In this report, I first briefly review the structure of first year psychology at U.Q., then I review relevant literature on large group instruction and relate it to first year Psychology at U.Q.. Next, I outline the educational goals of first year psychology at U.Q., and discuss relevant educational approaches to achievement of those goals. Finally, I review findings from my international survey of first year psychology classes, briefly evaluate first year psychology at U.Q. in light of those findings, and propose curriculum changes for first year Psychology at U.Q..

Teaching first year Psychology at the University of Queensland

Introductory Psychology is taught in two subjects at the University of Queensland. PY120 covers the topics of History of Psychology, Physiological Psychology, and Cognitive Psychology. PY130 covers the topics of Developmental Psychology, Clinical Psychology, Social Psychology and Applied Psychology. Both of these subjects are prerequisites for further study in Psychology, and they are required subjects in other disciplines including the Therapies and Social Work. Further, PY130 will be a core subject in the new Bachelor of Social Science degree, to be launched in 1998. First year Psychology subjects are also popular electives across the University.

The first year Psychology subjects are among the largest classes given at the University of Queensland. Table 1 provides enrolment data for PY120 and PY130 combined, per semester, for the last 5 years. The average enrolment over the last 5 years has been 1956 students per semester.

Table 1: *Enrolment figures for both first year Psychology subjects combined.*

Year	Semester 1 enrolment for PY120+PY130	Semester 2 enrolment for PY120+PY130
1993	1936	1685
1994	2133	1865
1995	2098	2023
1996	2079	2082
1997	1778	1878

Both PY120 and PY130 follow the same basic organisation. Students are required to attend three hours of large lectures per week. These hours are comprised of two lectures and one practical/film session. The lectures are organised into two streams, with streams given by different lecturers, or different groups of lecturers. The practical/film session follows the lectures, and is comprised of practical demonstrations (30%) and films relevant to one of the lecture streams (70%). The practical/film sessions are not well attended. Because of limitations of lecture hall size, each of these components is repeated twice each week to accommodate the numbers of students. Unfortunately, one of the repeats is often particularly crowded, due to scheduling constraints of the students.

Besides these hours in large lecture halls, in first year Psychology students participate in a fourth contact hour each week. This hour is a PAL (Peer Assisted Learning) session. The PAL sessions are a new innovation, introduced in 1996. The PAL sessions are led by upper-level Psychology majors who act as facilitators, and the sessions are designed as student-centred study groups. These sessions have been generally well received, although some first year students have complained that they expected more "tutorial" assistance in their small group sessions. PAL sessions are not mandatory, but attendance is better than 50%.

The assessment in first year Psychology is based mainly (70%) on mid-term and final examinations, both of which are given in multiple-choice format. As of 1997, first year Psychology has a new assessment component of written work. Six percent of students' final marks are based on a lab report, and a further 18% of the final marks are based on a 1000-word essay that students write on one of two given topics. Finally, students complete 6 hours of research participation for 6% of their final marks.

Despite a relatively heavy work load (4 contact hours per week, written assessment), PY120 and PY130 are popular with students. In first semester 1997, PY120 obtained an average student rating, based on over 1000 respondents, of 5.7 out of 7 on the standard TEDI subject evaluation. In the same semester PY130 obtained an average rating, based on almost 500 respondents, of 5.6 on the same measure.

First year Psychology in flux

First year Psychology at the University of Queensland has been changing and will continue to change. The recent introduction of PAL sessions and the inclusion of assessed written assignments have certainly improved the subject, both for students and for lecturers. Further changes to first year Psychology are planned. The changes that will be possible are constrained by influences from various sources.

The Australian Psychological Society (APS) is the professional body that grants accreditation for Psychology programs in Australia. In their recent appraisal of the Psychology program at the University of Queensland, the APS made several strong suggestions related to first year Psychology. First, the APS was not satisfied with PAL sessions as the sole forum for small group learning at first year. The APS felt that PAL sessions constituted a "creative" approach, but in their final report to the School of Psychology, they strongly suggested that the University of Queensland move to small group tutorials with postgraduate leaders at first year level. Further, the APS suggested that the curriculum for the tutorials include a substantial laboratory component.

The School of Psychology agrees in principle with the suggestions of the APS, however there are also some constraints coming from the School itself. First, the introduction of postgraduate-run, laboratory-based tutorials at first year will be a costly innovation. Because of the tremendous numbers of first year students, over half of the pool of postgraduate tutors in the School of Psychology will have to be assigned to first year tutorial teaching. This re-allocation of resources will naturally have significant implications for teaching at second and third year levels. Further, the inclusion of laboratory work in first year tutorials will itself require significant financial resources, yet the School of Psychology, within the Faculty of Social and Behavioural Sciences, is funded far below the level of other faculties in which laboratory tutorials are standard. Finally, the School of Psychology faces the fact that student numbers in first year Psychology fluctuate from year to year, so therefore any changes to first year will have to be flexible enough to accommodate potential rises in numbers of students.

Other potential constraints on changes to first year Psychology center around curriculum. Beginning in 1998, PY130 will be a core subject in the new Bachelor of Social Sciences, so changes to the subject will have to be made compatible with the subject's role in that degree program, as well as its continuing role as a basic subject in Psychology and other disciplines. There is also a possibility that the School of Psychology will develop its own Bachelor of Psychology degree, which would again place curriculum constraints on first year Psychology.

The University's recent policy changes related to assessment include a call for reduction in reliance on multiple-choice assessment. Changes in first year Psychology assessment have already moved in that direction, and may continue to do so, particularly if the School changes its policy on Honours selection. Currently selection for Honours occurs at third year, but there has been some discussion of moving Honours selection earlier in the program, so that Honours students would be chosen based on first year marks. If that were to happen, then further changes to first year assessment might be necessary. Again, the resource implications of marking essays as opposed to multiple-choice examinations must be taken into consideration when making changes to first year Psychology.

Finally, any changes to first year Psychology must take into consideration the move within the University towards flexible delivery of large subjects. PY130 in particular, as a core component of the Bachelor of Social Science degree (BSocSci), will soon have to be presented in flexible delivery format at the new campus at Ipswich, where the BSocSci degree will be offered beginning in 1999.

Issues in large group instruction

The question of how class size affects teaching and learning has been central in education research for the last several decades (McKeachie, 1978; 1980; Gibbs & Jenkins, 1992). Since the 1970's, class sizes in universities across the world have been increasing (Gibbs & Jenkins, 1992). Some of the central educational issues related to class size include: students' and teachers' perceptions of large versus small classes, whether and how learning outcomes are affected by class size, and how to design curricula so that class size and educational goals can be successfully integrated.

Students' perceptions of large classes

Students' perceptions of large classes suggest that large group instruction can create obstacles to learning. Students report that in large classes, they find it hard to meet other students, hard to approach staff, they find themselves afraid to ask or answer questions, and they feel that they have little chance for feedback on their work (Gibbs & Jenkins, 1992). Further, the logistics of large classes can make for confusion on the part of the students, who may feel "like a number." This problem is evident in first year Psychology at U.Q., where students are given a choice of three lecture repeats to attend. Despite instructions to attend only one of the lecture repeats, given in both written and oral form, a number of students continue to ask "do I have to go to all three lectures each week?" even in the second and third weeks of the semester. Further, if students change the lecture repeat they attend from week to week, then they have little opportunity to develop relationships with fellow students.

Some students report that they prefer large classes (Gibbs & Jenkins, 1992; Litke, 1995) because they are "safe" or "relaxing": the anonymity of a large crowd may ensure that individuals will not be called upon to answer questions or make comments.

In a study that specifically investigated the feelings of Psychology students at a large American university, the State University of New York, Feigenbaum & Friend (1992) found that the majority of first year students surveyed preferred small classes to large classes, and cited the first year students' desire for one-to-one contact as the reason for the preference.

Lecturers' perceptions of large classes

Lecturers reactions to large classes, like those of students, are also mixed. Lecturers complain that very large classes provide little opportunity to establish rapport with students, such that the lecturers themselves feel isolated and alone. Lecturers who address questions to large classes often end up answering the questions themselves, since students are too afraid or unmotivated to call out answers. Lecturers also suffer from the relative lack of feedback from students in large lectures, which makes it difficult to monitor students' progress, and difficult to gauge if and when a difficult topic or issue has been successfully covered. Another difficulty is that in large classes, it may be hard for lecturers to identify individual students who are in trouble and at risk for failure.

Further, large groups are difficult to assess other than with multiple-choice. Multiple-choice examinations require a minimum amount of effort in marking, since a single answer key is created and then fed into a computer that automatically marks the students' papers. In contrast essays and other written work must be individually

evaluated. In the Psychology Department at U.Q., we allocate 20 minutes for lecturers or tutors to mark a 1000-word essay paper. In the context of 2000 first year psychology students, the marking of written work totaling 1000 words per student requires a total of approximately 667 hours!

Other problems lecturers cite with respect to teaching in large classes relate to discipline: in large groups lecturers are more likely to have trouble controlling the behaviour of students who may talk continuously or even walk out during lectures. Further, large classes require a certain level of technological sophistication: the overheads or slides must be made big enough to be visible to students seated far from the lecturer, the microphone must be made loud enough that all students can hear.

Some lecturers do however report that they prefer lecturing to large classes, because it is relatively easy: delivering prepared, well-rehearsed lectures is not as taxing as small group teaching. Lecturers may also find themselves highly motivated at the prospect of presenting material to an audience of 250, as opposed to an audience of 25 (McKeachie, 1978).

Learning outcomes for large versus small groups

While the subjective impressions of both students and lecturers appear to favour small classes over large ones, the empirical literature on learning outcomes for large versus small classes is not so clear. It is generally recognised that large classes can be as effective as small classes for certain educational outcomes, for instance, large classes can be superior to small classes for retention of factual information as assessed with achievement tests (McKeachie, 1978). In a much quoted passage, however, McKeachie (1980) states that “in general, large classes are simply not as effective as small classes for retention of knowledge, critical thinking and attitude change” (McKeachie, 1980, p. 27).

Thus the relative effectiveness of large versus small classes depends upon the educational goals to be achieved. Lecturers may simultaneously strive to achieve many different goals in teaching a subject, including students’ learning of facts, the development of students’ critical thinking, generation of students’ interest in the subject, and attitude change. An explicit understanding of the educational goals of a given subject is essential for determining how to design a subject (Ramsden, 1992), perhaps such an understanding is particularly essential in planning the curriculum for a large first year subject.

Educational goals of first year psychology

What are the educational goals of first year psychology at U.Q.? In thinking about issues in large group instruction, and in trying to devise changes in first year psychology, it became clear that a detailed analysis of the educational goals of first year psychology would provide a context within which changes to the curriculum and structure of the subjects could be sensibly made. An analysis of the education goals of first year psychology revealed that we want to develop knowledge and skills in several different domains: content knowledge, skills in communication/application, research skills, general scholarship and attitude change.

Content knowledge

First, we want to provide students with a minimum level of content knowledge. In order to read about, talk about and understand basic issues in psychology, and in order to go on in psychology, students must learn some of the central, basic terms and concepts that are used in psychology. For instance, we want students who leave PY120 to know the basic structure of the nervous system, to know what a reflex is, to understand terms such as “attribution” and “gender constancy.” Content knowledge also includes a basic understanding of some of the central principles and theories in psychology, for instance, we want students to understand how reinforcement can change behaviour, how the phenomenon of groupthink can come about. Similarly, students who pass first year psychology should also be in possession of some of the most important empirical findings in psychology,

for instance, they should know that children's first words are spoken around 12 months of age, and that day and night vision involve two different receptor systems in the eye. Finally, with respect to content knowledge, we expect that students in first year psychology should leave the subject with a grasp of basic methodology, that is, they should be able to distinguish an experiment from a quasi-experiment, and both of those from naturalistic observation.

Skills in communication/application

Second, we want to develop in students some skills in communication and in application of knowledge. Thus we expect that students of first year psychology will be able to frame psychology issues in terms of established findings and issues in the psychology literature, in particular, we want them to have some capacity to relate ideas in psychology to empirical data. We also want to develop in students the ability to apply psychological theory and findings to "real life" experiences, for instance, students who understand the basic tenets of attachment theory might be able to analyse the events and emotions of a relationship break up in those terms. We also want to encourage students to link issues and ideas from other subjects to material in first year subjects. This goal is particularly relevant for the students who will be enrolled in the BSocSci degree, as the design of that degree includes integration of skills and knowledge across subject areas. We also want to encourage students to evaluate and critique research and theory in psychology, and finally, we want to develop competence in writing a critical essay.

Research skills

The most basic research skill that we want to develop in first year psychology students is the ability to ask a research question. We want students to recognise, for instance, that the question "Why do men and women disagree?", while a valid and interesting question, is neither specific nor concrete enough to drive research. We want to develop in students the capacity to reframe an issue into a genuine research question, eg. "How do men's and women's communication styles differ?" or "What are the issues that men and women disagree about most often in the context of a committed relationship?"

We also want to develop in students the capacity to frame research questions in terms of established findings and literature in psychology. Further, we want first year students to be able to design a simple study, to identify independent and dependent variables, to be able to interpret results, and to be able to discuss empirical results with respect to established and relevant findings and literature in psychology. Finally, we want to develop in first year students a basic level of competence in written presentation of research, such that they can produce a lab report that generally follows the customs and conventions of a psychological research report.

General scholarship

In terms of general scholarship, we want to promote in first year students the ability to independently gather relevant reference material on a given topic, thus we want them to leave the subject with some general library skills, including a basic familiarity of psychology periodicals, the capacity to find relevant books in the library, and some knowledge of the psychological abstracts both in print and on-line. We would also like for students to be aware of the world wide web as a source of basic references and information. Finally, we want to encourage in first year students the ability to carry out and complete a project on time.

Attitude change

Students often come into first year psychology thinking that psychology is the study of mental illness and the practice of helping people overcome mental illness. While clinical psychology is an important part of the discipline, it is only a small part. As I tell students the first day of classes, clinical topics make up only one-twelfth of the first year psychology curriculum at U.Q. Thus we want students of first year psychology to change their attitudes somewhat, such that they see the breadth of the discipline, and leave with the attitude that the field of psychology encompasses more than clinical psychology. We also hope to engender in first year students the attitude that they want to continue on in psychology.

Educational goals and approaches to learning

This extensive set of educational goals for first year psychology has important implications for how the subject should be structured. While the transmission of content knowledge is clearly a central goal, the development of skills and the desire to engender attitude change are also of central importance. In general terms, these educational goals suggest that in first year psychology we want to promote “deep” learning, to promote active learning, and to promote self-motivated learning.

Ramsden (1992) distinguishes two approaches to learning: deep and surface learning. These terms refer to the attitude to learning and the level of processing that students bring to a learning task. Deep learners bring to the learning process an intention to understand the material. They focus on “what is signified”: the underlying patterns and meaning in the material they are learning (Ramsden, 1992, p. 46). In contrast, surface learners focus on “the signs” in the material they are learning: they memorise the terms or formulas in order to complete the requirements of the task at hand. Deep learning includes relating new knowledge to old, relating knowledge from different subjects, relating theoretical ideas to everyday experiences, distinguishing evidence from arguments, and relating learned material in such a way that each piece of information is seen within the context of a coherent whole (Ramsden, 1992). Surface learning, in contrast, focuses on memorising material in order to get the job done (eg. pass the exam, turn in the assignment).

Active learning is distinguished from passive learning in the educational literature by the role that the student takes in the learning process. Active learning requires the student to seek out knowledge, to absorb, integrate, evaluate and re-frame information. Passive learning allows the student to “sit back” and take in information as it is presented.

These models of learning interact with models of teaching. A transmission model is one in which information is delivered to the student by the lecturer. The lecturer is active in this model, but students can be passive, as the only requirement made of them is that they absorb the information that is being transmitted. An alternative model of learning is an interactive model, in which students are forced to be active; in the interactive model, students must actively participate in the learning experience, and the role of the lecturer is to guide and encourage students’ learning (Ramsden, 1992; McKeachie, 1978).

Given our goals are to promote deep and active learning, how can that be accomplished with a as many as 2000 students? Thus far, first year Psychology at U.Q. has been structured on a transmission model of teaching and learning, with students passively presented with material, either lectures or films, in large groups which required little if any active involvement. Recent changes to the curriculum, including the addition of an essay-writing assessment component and PAL sessions, have increased the opportunities for active and deep learning. One of the goals of this project however was to develop further structures for realising the specific and general educational goals for first year psychology listed above. In order to gather information and ideas for curriculum change, it was anticipated that a fruitful approach might be to get an idea of how other large universities across the world structure their first year psychology classes.

International survey of large first year psychology subjects

The international survey of large first year psychology classes was completed in two waves. First, I gathered email addresses of psychology departments at large universities around the world, mainly through various psychology sites on the world wide web. Then I sent the following e-mail message to approximately 50 psychology departments around the world:

Dear Colleague,

I am doing an international survey of large first year psychology classes, in an effort to improve our own first year class here at the University of Queensland (Australia). We teach up to 2000 students every semester in our first year program. With these large numbers, we face a range of educational challenges. I am writing to request information on YOUR first year Psychology class. Please send me a syllabus, a handbook, Departmental information, or any other relevant material that could provide me with insight into how your first year class deals with the sorts of challenges inherent in teaching large numbers of introductory level students. Please also include an approximation of the number of students enrolled in the class.

I received ten packets of information from various universities in the U.S.A., Canada, New Zealand and Australia, as a result of this and subsequent (individualised) email messages. In order to gain a better geographical spread of universities, I then visited Psychology Department web pages, looking for places where the sort of detailed first year psychology information was electronically available. This search provided me with three more case studies, two from the U.K. and one from America. I also telephoned and emailed various friends of mine in Australia and America who are members of Psychology Departments, and talked to them personally about the first year subjects in their departments. In the course of gathering this information, I ended up with information from more than 25 psychology departments around the world. Some of the information wasn't complete (eg. no enrolment information, incomplete syllabus, etc.), and some of the information addressed first year subjects that were relatively small (eg. University of Pittsburgh Introductory Psychology has "only" 120 students), so in the end I chose 13 case studies that represent a range of geographical locations, a range of university settings, and most importantly, a range of different solutions to teaching first year psychology to large numbers of students.

The final sample of psychology departments in the survey includes: from the U.K., the University of Sheffield and the University of Glasgow. From the U.S.A., the University of California at Berkeley, the University of Wisconsin, the University of Illinois and Florida State University. From Canada, York University and Queens University. From Australia, the University of Western Australia and Sydney University, and from New Zealand, the University of Auckland.

I visited web sites of Universities in non-English speaking countries (including the University of Munich in Germany, La Sorbonne in France and the University of Kyoto in Japan). At these sites, the main web page tended to be in English, however specific information about individual subjects was not in English, so I was unable to include non-English speaking Universities in this survey.

University of Sheffield

First year psychology at the University of Sheffield has an enrolment of 200 students per semester. This is the smallest first year subject of all that I surveyed, but since classes in general appear to be relatively small in the U.K., I decided to keep Sheffield in the survey. The whole of first year psychology is taught in a single semester (as opposed to 2 semesters at U.Q.), with 4 contact hours per week. The subject is team taught, with a total of 8 lecturers contributing. Students are broken into small groups for one of their contact hours per week. This small-group segment of the subject is split between tutorials (4 total in the semester) and labs (5 total I the

semester). In each tutorial, students are given formative multiple-choice quizzes. The assessment for the subject consists of two multiple choice examinations.

University of Glasgow

The University of Glasgow's first year psychology subject has an enrolment of 250. The subject is taught over two semesters, with 4 contact hours per week. The subject is team taught, with 19 academics (including 3 tutors) contributing to lectures. One contact hour per week is devoted to small group tutorials which are run by postgraduates. Students also take part in a lab component on an individual basis in the psychology computer lab; they are required to independently complete several computer-based experiments over the course of the semester, which are written up in report form and assessed. Students are also assessed for their participation in tutorials, for their performance on a final exam (half essay, half multiple choice), and for their production of three 1500-word essays.

Students who take first year psychology at the University of Glasgow can do so as an elective subject, or as a degree subject. All students complete the curriculum described above, however degree students are required to complete an addition examination, given after the end of the year, to qualify to continue on in psychology.

University of California at Berkeley

The enrolment in first year psychology at the University of California at Berkeley is 560. This enrolment is capped, such that in any given semester, students are put on a waiting list and given a place in the subject if openings become available before the midterm. Students are enrolled in the subject on a weighted lottery system: second year students are given first preference, and Psychology majors are also given preference. Besides the first year psychology subject, Berkeley offers a lecture-only introductory psychology subject for third and fourth year students who simply want an elective in psychology.

The first year subject at Berkeley is taught in one semester, with 3 contact hours per week. One of those hours is a tutorial, in which students meet in groups of 20. The tutorials are run by postgraduate students. The subject is team taught, with both lecturers and advanced postgraduates contributing. There is no lab component to the subject, although students do take part in Psychology Department experiments as members of the subject pool. The subject is assessed with 2 multiple choice exams and 3 short essays that are due at intervals over the course of the semester.

Berkeley has developed the first year subject as a learning experience for both the undergraduates and the postgraduate tutors. The best tutors in the department (identified through departmental teaching evaluations) are invited to teach first year. They are expected to prepare and deliver lectures, as well as contribute to the structure of the subject.

University of Wisconsin

There are 2000 students enrolled in first year psychology at the University of Wisconsin. These students are broken up into 5 groups, or sections, of 400. Each section is taught by a different lecturer, all with their own unique syllabi and some with different assigned texts. Students are assigned to a given section. First year psychology is taught in 1 semester, with 2 contact hours of lecture per week. There are no tutorials and no labs, although there are optional peer-assisted study sessions organised centrally by the university. Assessment is done through four multiple-choice exams, though students can gain extra credit by participating in the psychology department research subject pool.

I received a candid email from one of the 5 first year lecturers at the University of Wisconsin. She gave me permission to quote the following:

Our intro psych course is taught by junior people like myself because the faculty hate the course. It is a lot of material, most students are required to take it, we use an extremely tough curve, and the class sizes are so big that it can be unrewarding to teach. I usually get to know a few students well, and I enjoy them. It is a "swim or sink" course, for both the students and the instructor. I use a lot of multimedia to put some sugar on the medicine. I enjoy teaching it, and I feel that the students do get a good course, despite its limitations.

It is interesting to note in the current attitude climate of "high-tech is best" that this lecturer refers to multimedia aids to teaching as "sugar" to be put on the "medicine" of the subject content. This suggests that in the view of this particular lecturer, multi-media is not a superior form of presentation, and supports recent educational research confirming that the majority of lecturers at a large university prefer more familiar, "low-tech" teaching aids (Isaacs, 1994).

University of Illinois

First year Psychology at the University of Illinois has an enrolment of 2500 students per semester. The subject is taught in one semester, in 3 one-hour lectures. Like the system used at the University of Wisconsin, the 2500 students are split into sections of 250. These 10 sections function independently, each being organised and taught by a different lecturer, though the book used in each section is standard. Assessment is done through multiple-choice examinations.

There are no tutorials in first year Psychology at the University of Illinois, however, there is a computer laboratory in the Psychology department, where first year students are invited, but not required, to explore the psychology software. First year students also take part in departmental research as experimental subjects. They are given credit for their participation in experiments to which they have been assigned. Illinois is the only department of those surveyed that does not allow students to choose the experiments in which they will participate, although students are allowed to withdraw from an experiment at any time without penalty (presumably they could be re-assigned to a different experiment to gain the lost credit).

The University of Illinois has a campus cable television station, which broadcasts University-related programs and information around the campus. One hour per week, this station airs Psychology programs, which first year students are encouraged to watch.

Florida State University

Enrolment in first year Psychology at Florida State University is 2000, with students split into 10 sections of 200 each. The sections are each run by a single post-graduate who delivers all of the lectures. All sections use the same book and subject outline. The subject is taught in 1 semester, in 2 one-hour lectures per week. There are no tutorials and no labs. Assessment consists of 5 multiple-choice quizzes given throughout the semester. The lowest quiz grade is automatically dropped, so that 4 multi-choice quizzes each make up 25% of the final mark. Students also participate in 2 hours of departmental research as part of the first year subject requirements.

York University

First year psychology at York University, Canada, is the largest of those surveyed, with 3400 students enrolled at a time. The subject is taught over two semesters by 12 different lecturers, each running a section of between 160 and 500 students. The lecturers determine the subject content, so each section's book and subject outline

is different, though the assessment procedures are uniform across sections. There are no tutorials, however each section has a teaching assistant who holds weekly consultation hours for students.

Students are assessed with 5 tests presented throughout the semester; these tests constitute 85% of the final mark and are made up of 25 multiple-choice items plus one short essay. An in-class lab demonstration is presented by the lecturer and students write that up for an additional 15% of their final mark. Students can also gain extra credit by participating in departmental research.

Queens University

At Queens University, Canada, the first year psychology subject has an enrolment of 1600 students. It is taught in 4 quarters, with each quarter devoted to a distinct topic area. Each quarter is team-taught by 2 to 3 lecturers. Students are assigned to the order in which they will take each of the quarters, so that there are 400 students to a quarter/class. There are no tutorials, however tutors hold weekly consultation hours in which they occasionally give demonstrations or show films. The subject handbook states that the tutors are available to consult on the book, but not on lecture content, presumably because tutors do not attend lectures.

Assessment consists of 4 quarter examinations made up of short answer, essay and multiple-choice questions. There is also a multiple-choice final exam at the end of the subject. The quarter exams are based on both book and lecture content, and make up 60% of the final mark, while the final exam is based only on book content, and makes up the remaining 40% of the final mark. Students may also earn extra credit for participation in departmental research.

Queens University supports a first year psychology list-server, on which first year students can get up-to-date information about the subject. There is also detailed information about the first year psychology subject available on the Queens University Psychology Department homepage on the Web.

University of Western Australia

The University of Western Australia has a first year Psychology enrolment of 580 students. The subject is team-taught in two semesters. Students attend 3 one-hour lectures per week which are each repeated once per week; students may attend either of the two repeats. Students also attend a one-hour lab/tutorial each week, run by post-graduate students. The lab/tutorials include demonstrations and computer-based experiments, two of which are written up for assessment.

The assessment consists of the two lab reports which contribute to 20% of the final mark, plus two examinations contributing 75% to the final mark, and research participation which contributes a final 5% of the final mark. The exams are a midterm made up of multiple-choice items and a final made up of both multiple-choice and essay items.

Sydney University

First year Psychology at Sydney University has an enrolment of 1200 students. The first year subject is team-taught in two semesters. Students participate in 3 hours of coursework per week: one hour of lecture and two hours of small-group tutorials. Each lecture is repeated twice and students are assigned to one of three lecture times. Students are also assigned to tutorial times. Lectures are delivered to 400 students at a time, while the tutorials are conducted in groups of 20 to 25 students.

The tutorials are organised such that one hour is for tutorial discussion, and the other hour is for lab work. Tutorials are run by postgraduate students. The labs include both demonstrations and computer-based experiments. Students write up one lab report for assessment in semester 2, which counts for 10% of their final mark. Students also write a short essay that counts for an additional 10% of their mark. Tutorial quizzes count

for 15% of the final mark, and 60% of the final mark is determined by multiple-choice exams. A final 5% of the subject mark is earned through departmental research participation.

Sydney University's Psychology department has an extensive Web page where much of the information about the structure of first year Psychology can be accessed.

University of Auckland

First year Psychology at the University of Auckland is taught in two subjects: Introduction to General Psychology and Introduction to Experimental Psychology, each given in 1 semester. The two subjects each have enrolments of 500 each, and they are run the same way. Students are assigned to a lecture time, as each lecture is presented twice to groups of 250 students. The subject is team-taught by lecturers and postgraduate tutors. Students also attend one 2-hour lab session per week, run by post-graduate students, to which they are assigned.

Students write up one lab report per week, each worth 2% of the final mark. The remaining 80% of assessment is done with multiple-choice examinations: one midterm and one final.

A brief evaluation of University of Queensland first year Psychology

This survey of international first year Psychology subjects was an enlightening exercise. Several points emerged. First, it appears that the logistical problems of having a large first year Psychology enrolment are dealt with in one of two ways: breaking students into independent sections, or repeating lectures so that huge numbers can be divided into relatively manageable groups. Interestingly, none of the universities surveyed who repeated lectures allowed students to choose their lecture times, as does the University of Queensland. In that respect, the University of Queensland appears to provide the most "flexible" first year Psychology subject of the universities surveyed.

Second, it is clear that assessment of large numbers of first year students with techniques other than multiple-choice examinations is rare. Given the enrolment numbers in the various first year subjects, this is not surprising. The technique of dropping one of several multiple-choice marks, adopted at Florida State University, constitutes a creative way to endow such a rigid (but cost-effective) assessment method with some flexibility. The fact that at the University of Queensland, a quarter of the final mark in first year Psychology is determined through written assessment, is impressive in this context.

Third, it appears that the larger the enrolment, the less likely students are to be given small-group learning experiences, either in the form of tutorials or labs. Only one first year Psychology subject with an enrolment over 1000 included small-group tutorials; that was Sydney University. Again, given the constraints on large classes, this trend is not surprising. This is the main area in which first year Psychology at U.Q. will be improved. As stated above, the educational goals of first year Psychology at U.Q., that is, the goals of promoting deep, active learning on the part of first year students, necessitate the introduction of small-group tutorials.

Planned changes to the first year Psychology curriculum at U.Q.

The most important change to the first year curriculum for 1998 will be the introduction of small group lab/tutorials. These small group sessions will be similar to those run by the University of Sheffield, in that tutorial discussions, formative assessment exercises and laboratory work will be integrated into the program. Students will meet for one hour each week, in groups of no more than 25. The purpose of the tutorial program is to

increase the amount of subject content that is presented in an interactive framework, thereby encouraging students to participate in active learning.

Lab/tutorial curriculum

The lab/tutorial curriculum will consist of approximately 5 lab exercises, some of which will employ computer-driven experiments, others of which will be demonstrations and exercises. The School of Psychology has invested in 3 video projectors that will allow students in a lab/tutorial to simultaneously take part in computer-driven experiments. Among other resources, we intend to make use of the PSYCHE interactive psychology experiment package that was recently developed within the School of Psychology at U.Q.

The lab/tutorial curriculum will also include several directed discussions, for instance, during the week that Stanley Milgram's classic "Obedience to Authority" experiment is covered in lecture, students will view a 20-minute film of the experiment itself, then take part in discussion about the experiment. This discussion will be planned such that students will have been directed in lecture and before the film viewing to write questions and notes with respect to specific issues.

Finally, the lab/tutorial program will include weekly formative assessment. Students will be given 5 multiple-choice questions in the first 10 minutes of each weekly meeting, to answer and discuss. In the week before the essay is due, the tutorial will be devoted to peer assessment of the essays, and consultation with the tutor.

Lab/tutorial program structure

The intended structure of the lab/tutorial program is inspired by the program at the University of California at Berkeley. We will employ as many as 30 tutors, each of whom will be responsible for 3 first year tutorials. In order to ensure a consistent, integrated program, it will be necessary for the tutors to be given a good deal of guidance and for them to communicate with each other. At the same time, as each tutor will be working closely with his or her own students, it is also necessary that the tutors be dedicated and creative with respect to issues and problems that will arise in their individual tutorials.

We plan to hire 6 individuals as "lead tutors" for the first year program. These lead tutors will be interviewed and specially chosen from the pool of postgrads who have proven records as tutors. These lead tutors will be given extra responsibilities as well as extra benefits. The responsibilities will include: meeting with lecturers to go over and discuss the tutorial agenda each week, coordinating communication between tutors so that all tutors are prepared for the week's tutorial, coordinating marking efforts, plus other duties that are as yet unforeseen. In exchange for this extra responsibility, lead tutors will receive a week's extra pay as well as pay at a higher rate than the standard tutor's salary, high-quality shared office space, and extra photocopying allowance within the School of Psychology. We also intend to implement School teaching awards for tutors. The purpose of these innovations is to make the first year tutoring positions, and particularly the lead tutor positions, valuable learning experiences for the postgraduate tutors as well as for the first year students. We will strive for the position of lead tutor to become a coveted job, both for the material benefits and for the professional and educational benefits that postgrads will receive from the position.

Assessment

For 1998, there will be a decrease in the weight of multiple-choice assessment and a concomitant increase in the weight of written assessment in first year. The written lab report component will increase from 6% to 9% of the total mark, and the essay component will increase from 18% to 20% of the total mark. This leaves 65% of the total mark determined by performance on multiple-choice assessment, down from 70% in 1997. The final 6% of the mark is still achieved through research participation.

These changes are expected to enhance students' deep and self-motivated learning. In 1997, feedback from students with respect to the essay assessment indicated that the inclusion of a substantial essay assignment in first year was indeed allowing us to achieve some of our targeted educational goals, particularly with respect to students' approach to learning about a specific essay topic. The following email correspondence was received at the end of semester 2, 1997:

"During our lecture Dr. Virginia Slaughter asked for feedback on the use of an essay as a form of assessment in first year psychology.

We would just like to let you know that we have found the essay's (sic) both in PY120 and 130 very interesting. They provided us with the opportunity to look more closely and to be more involved in psychology and the topics chosen and we learnt a lot as a result.

We think the essay is a great idea and should continue to be used as a form of assessment in the future."

This message was signed by two first year students. I was particularly impressed with their assertion that the essay allowed them to "look more closely" and "be more involved," both of which are indications of a deep, as opposed to a surface approach to learning.

Future Plans

The international survey of first year Psychology classes revealed several potential innovations that might in future be included in U.Q.'s first year program. One interesting idea, implemented at the University of Glasgow and at the University of California at Berkeley, is the separation of first year subjects into major and non-major subjects, with the subject for majors carrying a higher credit point load. Thus in future we might consider putting on a non-major Introduction to Psychology subject, perhaps worth 5 credit points (rather than 10), perhaps without tutorials, for students who want to dabble in the field.

Another innovation that we intend to implement for 1999 (to be coordinated with the Ipswich campus) will be a list-server and e-mail discussion group for first year Psychology, where subject information, lecture notes and important dates can be posted and continually updated, and where students can ask questions of lecturers, tutors and each other.

Further changes to first year Psychology in the future may include the potential for students to gain extra credit, and the implementation of some sort of flexible assessment. In terms of extra credit, students might gain marks by providing a lab report write-up of one of their hours of research participation, or they might be given marks for writing short essay answers to questions raised in tutorial discussions. In terms of flexible assessment, we might allow students to elect the relative weights of their written and multiple-choice assessments. Another possibility is to give students marks for assessing early drafts of each others' essay assignments.

Reflections on my experience in the Graduate Certificate in Education (Higher Education)

When I came to U.Q. in July, 1996 as a first-time lecturer, I was given one of the first year subjects (PY130) to coordinate. At first, I was overwhelmed by the task. I had never been involved in such a huge class at any time in my own education, either as a student or as a tutor. I knew nothing about teaching large classes, yet it was clearly a topic of central importance in education.

Fortunately for me, I arrived at a crucial time in the development of first year Psychology at U.Q. For various reasons, some of them outlined in the Introduction above, the first year Psychology curriculum was set for change. My colleague Dr. John McLean, who arrived a few years before I did and who coordinated both first year subjects prior to my arrival, had already begun the introduction of written assessment in first year Psychology, and had been pushing for the implementation of a tutorial program. His efforts combined with the interest of the new Faculty of Social and Behavioural Sciences and the dedication of the School itself, I believe together led to the commitment to institute a tutorial program in first year. The question then became, what form should the tutorial program take, and how could it be implemented given the numbers of students in first year?

My enrolment in the Graduate Certificate was therefore perfectly timed. It gave me the resources to frame the mass of problems associated with first year into manageable, educational questions. It also provided me with a means to learn about issues in large group instruction, and to work on a project that gave me a tremendous amount of practical information that could be directly put to use in making changes to our first year curriculum. Much of what I learned is not in this document, for instance, a good deal of the reading I did for this project was in the journal *Teaching of Psychology*, where I discovered reports of all sorts of laboratory exercises that can be used in a first year curriculum. One of the papers I read described an exercise on personal space that I had already planned to use in the new tutorial program, with interesting additions and advice for making it more successful. Also, in working on my Graduate Certificate I read quite a bit on lecturing to large classes, and I believe that I have considerably improved my own large-group lecturing style as a result.

I think the greatest benefit I got from the Graduate Certificate was the capacity to see work in Education as relevant to my practice as a university lecturer. In the course of doing a PhD in Cognitive Psychology, I had naturally become familiar with many issues relevant to Education, especially issues in cognition and instruction. However, I always saw research and writing in Education as work from a “related field,” not as a resource to inform and enrich my own role as an educator. Participating in the Graduate Certificate gave me a new perspective on how research and writing in the field of Education relates to what I do, and it gave me a good overview of some of the educational issues, approaches and resources available to me as a university lecturer.

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