

Department of Psychology

Self Study

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The following document is our response to the questions raised in the Guidelines for the Self-Study as part of the academic review process. This self-study reflects the efforts of the Head, the Advisory Committee to the Head and two departmental retreats. We view the present self-study as a continuation of our academic planning in the expectation that this time adequate support for our activities will be forthcoming.

A: Strategic Objectives

The Department of Psychology is committed to the University's mission of excellence in teaching, research and scholarship, and service to the general public.

The Department's primary teaching objectives are:

1. to provide a high quality undergraduate programme to students who wish to pursue a Major or an Honours degree in Psychology
2. to provide a high quality graduate programme in areas that reflect the strengths of the Department and the University
3. to provide courses in psychology for students who are interested in the discipline or who are fulfilling degree requirements for other majors, faculties or schools.

The Department's primary research objectives are:

1. to promote and support basic and applied research activity across the discipline of psychology.
2. to develop and strengthen areas of research expertise within the Department.

The Department's primary service objectives are:

1. to promote psychology as a research and applied discipline in the community
2. to foster links with community organisations who might benefit
3. to participate in professional affairs of the discipline
4. to participate in and contribute to university affairs.

B:Student Enrolment

Overall enrolments have been relatively constant in recent years. The reason is that there is competitive entry into our Major and minor programmes. Our goal has been to admit the number of students that we can graduate in a reasonable time. Table B1 indicates, the cut-off scores for entry, the number of students admitted at each of the entry times in the academic year and the number of individuals remaining in the various streams of our programme. Note should be taken of two points. First, in spite of a drop in the number of faculty, numbers in the programme have been maintained. Second, the percent of applicants admitted over the past five years has been increasing. This may indicate a lowering of interest but we think it arises because poor students no longer bother to apply.

Entry	9601	9602	9701	9702	9801	9802	9901	9902	0001	0002	0101	0102
Cutting Score	68	72.5	71	71	71	71	70.5	70.5	70	68	65	68
Admitted	110	53	152	41	149	41	149	45	148	53	140	54
Psych. Majors	301	315	336	330	324	317	312	306	291	305	305	305
BHNR	17	18	27	31	41	43	50	53	57	60	52	60
Minors	89	94	90	96	89	94	92	84	58	95	93	91
Total	407	427	453	457	454	454	454	443	406	460	450	456

Table B1. Data on entry into the Major, Minor and Behavioural Neuroscience Major since the inception of competitive entry.

Our enrolment by course by semester is given in Appendix B1a for undergraduates and Appendix B1b for graduates. For the first year of on-campus courses the enrolment has been fairly steady over the last five years. It is worth noting that we have not been able to offer any first year courses on campus in the third semester since we have not had the staff or available, proficient instructors to hire on a per-course basis. The fall of enrolment in the 2000 level courses is attributable to our lack of capacity to sustain large enrolment non-major's courses. This strategy follows the recommendation of the 1994 External Review Committee that "... we recommend that the department consider reducing or eliminating these offerings if it cannot obtain the resources required to offer

them...” (Appendix B2, p.3). For the 3000, 4000 and Honours’ level enrolments, there is no systematic diminution of enrolment. The variations arise from variations in enrolment in elective courses – the core of the major’s programme is steady and at capacity.

The above numbers indicate that the undergraduate programmes are popular, are filled to capacity, and that our retention rate is high. The number of students and degrees awarded is constrained by resources in the numbers of faculty and staff, space, and equipment.

Most students who enrol in our programmes go on to courses in many related fields, such as medicine and allied health, law, public relations and public service. Some may enter these related educational paths in the later stages of an undergraduate degree (e.g., physiotherapy) such that some loss of students is expected and does not reflect student dissatisfaction. Informal feedback suggests that our students are successful in pursuing education in psychology and other areas and value the undergraduate education they received in our department as a foundation. Unfortunately we have no formal data concerning these issues. We recognise a need to establish a means of tracking student outcomes and obtaining feedback from them for use in curriculum development.

C: Curriculum and Teaching

Description of Our Undergraduate Programmes

Degrees Offered. The Department offers the following undergraduate degree programmes:

Major and Honours in Psychology (B.A., B.Sc.)

Major and Honours in Behavioural Neuroscience (B.Sc.)

Minor in Psychology (B.A., B.Sc.)

Joint Honours in Biology and Psychology (B.Sc. Hons)

Joint Honours in Psychology (Behavioural Neuroscience) and Biology (B.Sc. Hons)

Joint Honours in Psychology (Behavioural Neuroscience) and Biochemistry (B.Sc. Hons)
Joint Honours in Psychology (Behavioural Neuroscience) and Biochemistry (Nutrition)
(B.Sc. Hons)

Admission Requirements. Admission to the Major is competitive and selective. Students can apply upon completing 24 credit hours (8 courses), including Introductory Psychology (2), English (2) and Math (2) with a minimum average of 65% in Introductory Psychology and at least a 60% overall. Admission to the Honours programme is also competitive. Students can apply upon completing 18 credit hours in psychology major's courses beyond the 1000 level with an average grade of B or better.

Majors Programme. Majors students complete a minimum of 42 credit hours (e.g., 14 courses) of psychology. Typical first year students take Introductory Psychology (1000 and 1001). In the second year, students take two lecture plus laboratory courses in Design and Analysis (2900 and 2901). Over the second and third years, students also take six lecture plus laboratory courses from a choice of eight different areas (developmental, social, learning, perception, cognition, personality and abnormal, physiological, and animal behaviour). In the third and fourth years, students complete four additional psychology courses, including at least one selected topics course, and some combination of a lecture plus laboratory course and courses at the 3000 and 4000 levels.

Honours Programmes. Students doing an Honours in Psychology complete a minimum of 60 credit hours (20 courses), including lecture plus laboratory courses in all eight areas listed above, at least three selected topics courses, a third Design & Analysis course (3900), a course in Systems in Contemporary Psychology (4910), and an undergraduate thesis (499a/b). The requirements for the Joint Honours and other specialised honours degrees are more constrained than the general honours degree, given the need to complete an extensive number of courses in at least two domains. Calendar descriptions are included as Appendix C1.

Assessment

The current undergraduate programmes offered by the Department are consistent with the stated objectives, calendar descriptions, course requirements, degree requirements, and standards for admission set by the Department. Indeed, the 1994 External Review Committee (Appendix B2) made the following statement:

The Department offers what appear to be very strong majors and honours programmes in Psychology and Behavioural Neuroscience. Particularly noteworthy is the emphasis on classes with a laboratory component. Compared with other North American psychology programmes, the MUN programme requires many more laboratory classes for both majors (6) and honours (8) students. Students and faculty alike place high value on these classes, and we believe that this unique aspect of Psychology's Undergraduate programme should be preserved. (pp. 3 - 4).

At the time of the last review, a substantial increase in the number of students who wanted to major in psychology coupled with a reduction in the faculty complement had put tremendous pressure on enrolment in psychology courses, especially the Major's laboratory courses. During the 3-4 year period before the Department was successful in establishing a competitive admission policy (this initiative had been supported by the members of the Department, representatives of the Psychology Society, the Faculty of Science, and the External Review Committee, but not by the Faculty of Arts), changes were made to the prerequisites for some courses to help cope with heavy enrolment pressures. These changes inadvertently eliminated some of the sequencing in our undergraduate programme, thereby decreasing its cohesiveness. We have addressed this issue in our Undergraduate Teaching Retreat and any new curriculum will ensure that courses will be offered in a coherent sequence that allows for progressive coverage of the material (Appendix C2).

The Department now operates under a competitive admission policy and admits as many qualified students to the Major as we can accommodate. The data in Table B1 show that the Department has maintained enrolment numbers despite competitive entry and a reduced faculty complement. Moreover, the data in Appendix C3 reveal that 20% of the undergraduate science degrees were in Psychology, which is virtually identical to the percentage at the time of the last

review. To ensure that students can complete their degrees in a timely fashion, the faculty in each content area now concentrate their teaching on one or two laboratory courses, offering at least two laboratory sections per course for a total of an adequate number of laboratory seats per year in each area. To maximise efficiency in the delivery of these courses, students in all laboratory sections of a given course attend the same lecture.

Because our current undergraduate programmes were put into place over twenty years ago, the Department decided to review our programmes at a series of departmental retreats. Our goal was to develop new programmes that are contemporary, rigorous and coherent, and that can be delivered to the maximum number of qualified students in a timely fashion by our existing faculty complement. Appendix C2 provides a summary of our thoughts to date.

Approximately half of all registrations in Psychology are at the introductory level. This considerable enrolment represents a substantial service to the University at large since relatively few of these students proceed to our Major and Minor programmes. The delivery of Introductory Psychology has been characterized by innovation, hard work and efficiency. The innovation is demonstrated by the registration of a majority of the students in sections delivered through the medium of projected television and by the development of Web delivered courses for both Psychology 1000 and 1001. In both these forms of delivery, enormous amounts of hard work have to be put into the preparation of material for presentation and the innovation required to retain the focus and attention of the students. Hard work is also required for the delivery of the course through the normal lecture format because it is usually taught to two to three hundred students in one section. The efficiency is shown by the teaching of 1,200 to 1,600 students in the Fall and Winter semesters by three professors and the teaching of large sections on a per course basis. In addition to the on-campus delivery both Psychology 1000 and 1001 are delivered by correspondence each semester. The course delivery by projected television is well received by the students who perform as well in those sections as students currently and previously taught in the traditional lecture format.

The undergraduate degree in psychology is not a professional degree for most students. For some of our graduating students, a bachelor's degree serves as a stepping stone to other professional studies (e.g., law, medicine, speech pathology and audiology, etc), while for others, it is a terminal degree suitable for many types of employment. An Honours degree additionally allows students to pursue further training in psychology. Although our Honours programmes appear to provide our graduates with relevant courses and experiences needed for graduate school, there is some suggestion that we may not always offer everything that is needed (e.g., some graduate programmes in counselling require a course in Theories of Counselling, which we do not offer; some topics covered in the GRE exam are not included in our programme). It would be useful to ask current Honours students who are applying to graduate programmes if they needed courses beyond those offered by the Department so that this issue could be addressed.

Problems of Overlap. Two types of overlap were identified: (1) overlap in the content of three specific courses offered by the Department and courses offered in different departments and (2) teaching of core psychological content by other faculties that could potentially be obtained through courses offered by the Psychology Department. The Department has *not* generated courses to cover knowledge already taught in other disciplines. Rather, other disciplines have undertaken the teaching of core psychological content. This situation may have arisen for 'good' reason; the Department may not have had the resources to provide courses in a particular area, e.g. psychometrics which is offered by Faculty of Education. Alternatively it may have arisen for a less defensible reason; the desire of a non-teaching unit to provide academic instruction. The Department does not have the resources to provide everything to everybody, but we adhere to the principle that core psychology should be taught by the academic specialists who are in the Department.

1. Overlap in Specific Courses.

Psychology 2900/ 2901. Students can receive credit for either Psychology 2900 or Statistics 2550 and Psychology 2901 or Statistics 2560. While Psychology Majors benefit most from taking statistics for psychology (Psychology 2900, 2901), it is useful and considerate to be

able to give credit to students who have taken Statistics 2550 or 2560 or to allow them to do so to overcome time-table or other problems. It should be noted that although the Psychology Department allows its Majors to substitute Statistics courses for its own courses, Statistics, while citing exclusive credit, does not allow Statistics Majors to substitute psychology courses for their own courses.

Psychology 2440, 2450, and 3450. A more difficult case of overlap concerns UCC 2020 (Applied Cognitive and Affective Learning Strategies for Undergraduate Students) offered by the Counselling Centre and Psychology 2440 (unrestricted course in Human Cognition) or 2450 (major's course in Human Memory) and Psychology 3450 (major's course in Human Cognition). Students can do both UCC 2020 and Psychology 2440 or 2450 and 3450. Although UCC 2020 presents an applied version of much of the content of Psychology 2440 or 3450 (e.g., personal application of cognitive and affective learning strategies and techniques with an overview of topics from cognitive psychology, including information processing, memory, forgetting, problem solving, etc), it does not provide the equivalent scientific and analytic perspective on the content and hence, UCC 2020 cannot substitute for the Psychology Department's offerings in cognition. Nonetheless, students who have taken UCC 2020 prior to taking a cognitive psychology course have an unfair advantage over those who have not taken it. This problem should be resolved by integrating UCC 2020 into the offerings of the Psychology Department with the appropriate prerequisites.

Psychology 3501. Psychology 3501 (Industrial Psychology) and Business 4320 (Introduction to Personnel and Human Resource Management) are cross-listed. However, psychology and business students are not treated comparably. Although psychology students can obtain credit for only one of P3501 or B4320, business students cannot substitute P3501 for B4320. This disparity suggests that cross-listing should be revisited.

1. Core Psychological Content taught in other Faculties

The course titles and descriptions of various courses in the Faculties of Education, Physical Education, Social Work, and Nursing suggest that non-psychology faculty are teaching core

psychological content (See Appendix C4). We recognise that different faculties draw upon and use psychological knowledge in ways appropriate to their disciplines. Nonetheless, we think it would be advantageous to all disciplines, including psychology, to have psychologists deliver core psychological knowledge in courses offered by the Psychology Department before that knowledge is applied in the other discipline.

The programme for the Faculty of Social Work provides a reasonable model of how this might work. To be admitted to the School of Social Work, students must complete 15 credit hours of psychology (Introductory: 1000, 1001; Developmental: 2010, 2011, 2012). The developmental psychology sequence serves as the prerequisite for SW3211 and SW3220, core courses in the Social Work programme. This approach seems to take advantage of the strengths of each department. That is, a developmental psychologist is likely to provide a solid foundation in developmental issues to students that they can then use in the context of social work.

No other Faculty has adopted the above approach and consequently, courses focussing on developmental psychology, abnormal psychology, cognition, and tests and measurements abound in other faculties. The Department of Psychology has offered non-restricted courses in each of these areas, except for tests and measurements, for many years. Some of these courses were required by other Faculties in the distant past. The Senior Administration and Senate must seek ways to minimize the teaching of core psychological content outside of the Department.

Description of Our Graduate Programmes

The Department offers the Master of Science and the Doctor of Philosophy degrees in Experimental Psychology in the areas of specialisation of the Department and the Masters of Applied Social Psychology (Cooperative) degree. It is also a major partner in the Interdisciplinary Programme in Biopsychology that offers the Master of Science and Doctor of Philosophy degrees in Biopsychology.

Students in the Experimental Psychology programme at the Masters level are required to take a graduate statistics (6000) and a research design (6001) course, two courses in their area of concentration and two electives, in addition to completing a research-based thesis. Behavioural Neuroscience is integrated with the graduate programme in the Faculty of Medicine, ensuring that students are exposed to a variety of approaches in their studies. At the Doctoral level, students in all programmes are normally required to take two courses, complete a comprehensive exam, and a research thesis. Twenty-four students have graduated at the Masters level and five at the Doctoral since 1995.

The Applied Social Psychology programme began in 1991 as a means to produce well qualified graduates in social psychology, programme evaluation and research design who could either go on to higher degrees or apply these basic research skills in a variety of socially relevant forums. Students follow a set sequence of courses and work-terms over their two year programme, including three courses in advanced statistics and research design, a research practicum and project. The programme has been immensely successful, attracting highly qualified students from across the country, graduating 26 students since 1995 who have either pursued Ph.D. degrees or accepted employment in a variety of government, health and private settings.

Graduates from this programme occupy senior positions with ACOA, HRD, the provincial Department of Education, and a variety of other provincial and federal departments, as well as a number of private consulting firms, locally and nationally. Indeed, our senior students routinely have employment offers before they graduate and before they complete their final work-term. For example, we currently have requests from two federal government departments and a private consulting firm, all of them in Ottawa, for students on a continual basis. We receive consistent feedback that our graduates are distinguished by their research skills and their ability to advise clients and employers about the efficacy of their social programmes. The supply of graduates cannot fill the demand; there is much room for the programme to grow.

The External Review of 1994 (Appendix B2) and the External Graduate Programme Review of 1996 (Appendix C5) both attest to the success of this programme in the Psychology Department.

The latter review noted

“This is the only applied programme currently active. The review committee encourages the University to do what is necessary to protect its special qualities and preserve its vitality. Any reallocation of resources to this programme through shifts in funding policies or any recovery of faculty positions through retirements would be well used in supplementing it. A department of psychology without a healthy applied component runs the risk of becoming lopsided; it cannot provide adequate services either to its students or, indeed, to the province. Applied psychology, as a discipline, focuses on the solution of life problems. In the future, it might prove to be an especially good investment for Newfoundland.” (p. 5).

The response of the administration to this report has ranged from doing nothing to pursuing policies that have had a negative impact on the programme. The programme has received no extra support; indeed, the programme could not admit new students for one year due to lack of resources. Despite the fact that the social psychology faculty have been especially active in university administration, no replacements have been provided. For the last several years, the social faculty have delivered the graduate programme, as well as a full undergraduate programme, with three members and at times, with a complement of only two members on faculty.

The Biopsychology Programme is an interdisciplinary graduate programme focused on animal behaviour and behavioural ecology, designed to train students in behavioural research that integrates different levels of molecular, developmental, ecological and evolutionary analysis. Some examples of ongoing research deal with kin-related behaviour of fishes, birds as environmental indicators, parental behaviour in seabirds and humans, whale and seal behaviour, conservation biology, social behaviour of wolves. Although the programme is interdisciplinary, teaching of graduate courses and thesis supervision in the programme draw significantly upon the resources of the Department. Our support helps sustain a high quality graduate programme that attracts first class students internationally and generates a disproportionate number of NSERC funded students at all levels. Further testimony to the programme’s calibre is the award

of three NSERC Post Doctoral Fellowships. The Department is pleased to support this programme since it enriches our academic life and fulfils the mandate of the University's Strategic Plan. Masters-level students in Biopsychology take four courses, including advanced statistics, and complete a research-based thesis, while doctoral-level students normally take two courses, complete a comprehensive exam and a research thesis. Eighteen students have graduated at the Masters level and seven at the Doctoral level: sixteen of the Masters and six of the Doctoral students were supervised by Psychology faculty. Three faculty members undertook a majority of the supervisory activity. More faculty members with this research speciality are needed in the Psychology Department to sustain this level of activity.

Required graduate courses are tailored for graduate students in each area or programme. Hence, the curriculum, at least for students in the Applied Social Psychology and Biopsychology programmes, as well as the Behavioural Neuroscience stream of the Experimental Psychology Programme, is consistent with our objectives, is relevant to the needs of our students, and is rigorous and cohesive. The May 1996 reports (one each for Psychology and Biopsychology) of the External Review of the various graduate programmes in the Department of Psychology that was carried out for the School of Graduate Studies (Appendix C5) strongly suggested that these programmes have worked well for students and faculty alike: they continue to do so.

The previously mentioned programmes have a sufficiently large intake of students each year to allow them to mount organised programmes. The same cannot generally be said for other streams in the Experimental Psychology programme where it is rare to admit more than one student per year. Except for advanced statistics and research design, which are offered yearly, students sometimes find it difficult to get required courses or electives in a timely fashion. Lacking other students in their area, they sometimes feel isolated. On the positive side, the quality of research supervision and resulting thesis research is high. Graduates from these streams are successful in obtaining appropriate employment or admission to the next level of study (Ph.D. or Post-Doctoral positions).

Despite our successes, the Department recognises that there are important problems with the graduate programme that must be addressed (see the Futures Committee Discussion Paper, Appendix C6). Although the undergraduate programme has survived the serious erosion in faculty numbers over the years, the graduate programme has not. Even our most successful programmes are under stress. Faculty renewal is needed, not only to increase the numbers available to participate in the graduate programmes, but also to generate the energy and cross-fertilisation needed to sustain a first-class graduate programme.

Several of the recommendations made in the reports of the 1996 Review Committee on Graduate Programmes (Appendix C5) have been implemented over the past few years. For instance, the Applied Social Psychology programme was changed from a three-year, thesis-based M.Sc. to a two-year, project-based Masters programme; efforts have been made to increase funding for graduate students; facilities for graduate students have been up-graded wherever possible; a system whereby faculty receive teaching credit for graduate student supervision is now in place; our web-site is currently being professionally updated to make it more attractive to potential students. However beneficial such changes may be, they are of minor importance when compared to the need for faculty renewal.

In addition to implementing an Applied Social Programme the Department has responded to the needs of the Province by becoming centrally involved in the development of a proposal for a Psy.D. programme, in collaboration with the MUN Counselling Centre, the Faculty of Education, the Faculty of Medicine, the Provincial Department of Education, the Provincial Department of Health and Community Services, and the Association of Newfoundland Psychologists. As the outcome of an initiative of this department, the Dean of Graduate Studies established a committee to examine the feasibility of establishing such a programme. In July 2001 its report recommending the development of such a programme was submitted to the Dean of Graduate Studies. Upon receiving a positive response from the Dean and the Vice President (Academic) in August 2001, a programme development committee has been working on a proposal to implement a Psy.D. programme which will be submitted within a few months.

The Psy.D. was endorsed by CPA in 1998 as an appropriate model for training professional psychologists, but as yet, no such programme is being offered in any English-language university in Canada. The current shortage of psychologists in Newfoundland and Labrador, the strong interest of undergraduate students in pursuing careers in clinical and counselling psychology, and the lack of opportunities for them to do so, both locally and nationally, make this an important initiative.

This is an exciting development, and the implications for the Department are as yet unclear. For example, consider the following point made by the Vice President (Academic) in an August 11, 2001 memorandum to the Dean of Graduate Studies that was circulated to the program development committee: "Viewing 'all clinical and counselling resources ... as one' [p. 10 of the report] suggests not only an efficient combination of human resources for the programme in question but also possibilities of organisational rationalisation. The reference to 'consolidation' in Recommendation 4 [p. 19] is intriguing." This comment invites discussion on the desirability of establishing a Faculty of Psychology, in this context at the graduate level, but conceivably also at the undergraduate level. Regardless, the place of the Department of Psychology within the present administrative structures of the University needs to be debated since the Department does not seem to be well served by the present arrangement.

D: Faculty Contributions

The Department has not implemented a system of teaching evaluation, although many instructors have their own evaluation instruments and some have used ISI forms. In the recent past, in the Fall 2001 semester there was a general evaluation of the courses offered by the Department; this was achieved by administration of the Course Evaluation Questionnaire (CEQ) which was used on a university-wide basis for the first time. The norms for the CEQ have not yet been published which makes the interpretation of the results for individual courses somewhat difficult. The summary reports of CEQ responses provided by the Centre for Institutional Planning and Analysis are appended as Appendix D1.

The interests and productivity of the faculty as researchers is summarised in a memorandum from the Head to the Vice President (Research) concerning the University Assembly on Research (Appendix D2). Details may be found in the CVs attached as Appendix D3. Some general considerations are worth noting here. Currently ten members of the Department hold NSERC operating grants and two hold individual or joint CIHR operating grants. This is not the limit of the funding or funded activity. For example, there is a principal investigator in a National Health Study, substantial funding as part of a Centre of Excellence in Children's Well-Being and funding from the Canadian Language and Literacy Research Network. This is in addition to internal funding from a number of sources and some contracts from pharmaceutical companies, oil companies and government departments. Our recent history in NSERC/CIHR competitions has been one of improvement. For example all four applicants in this year's operating grant competition received increases well above the average for the competition and for the Faculty of Science at Memorial, and the CIHR applicant received increased funding for five-years.

There are some very general considerations that have applied to the funding of research in the Department. A primary consideration is that we are an aging faculty which has been reduced in number. This means that, in spite of the clear recommendations of the 1994 External Review Committee (Appendix B2) and our own outline in the Five Year Plan (Appendix D4), that was requested by the Dean of Science in 1995, until this last year we have been without new blood. It is worth noting that of our recent appointments Skinner is well funded by NSERC as a young scientist and Hadden, in her first year of appointment, already has some small external grants for her work. It is the view of many in the Department that had a more constructive approach been taken to the staffing of Psychology we would have had even better research support.

A continuing problem for us has been the failure of the University to provide any serious bridging support for individuals who fall off NSERC or CIHR funding. While there has been some low level of support from the Department's operating funds, and a little from the Faculty of Science, individual researchers are encumbered in their efforts to get back onto the funding ladder by the absence of realistic levels of bridging funding. This is perhaps part of a broader

picture of a low level of research support. Our research has not been well supported by the University in comparison with other faculties, e.g. Medicine, or within the Faculty of Science, in comparison with some other departments. Institutional support is often provided in the form of departmental staff who may have some teaching function but in general support research. In Psychology, staff who work in support of research do so only after their teaching duties have been completed. It is clearly the case that most other departments have more staff to undertake research support. An examination of the faculty and staff numbers in the relevant pages of the Academic Unit Profile 2000-2001(Appendix D5) shows that Psychology had 29 Regular Full Time Faculty and 7 Staff (a staff to faculty proportion of .24). Comparable figures for Biochemistry are 16 and 9 (.56), for Biology 30 and 25 (.83), for Chemistry 18 and 29 (1.61), for Computer Science 17 and 11 (.65), for Earth Science 24 and 14 (.58), for Mathematics and Statistics 39 and 4 (.10) and for Physics 18 and 17 (.94).

Evaluating the impact of scholarly contributions is an enormously difficult task and beyond the resources of the Department. It is assumed that faculty who receive continued and increasing levels of support from the central granting agencies are indeed producing work of high quality. It may not be well known that when NSERC conducted its first international impact study as part of its re-allocation exercises, the discipline of psychology was ranked first. So, our own researchers who are funded by NSERC and CIHR are in fact well regarded by their peers and operate within a pool of high impact researchers. However, there are other indications that the scholarly contributions of the faculty are of good quality. For example, Rose and Gaulton who have been involved in developing the teaching of Introductory Psychology to large classes often present at conferences and are invited to other universities to talk about their work.

The workloads of the faculty break down in a range of different balances between teaching and other scholarly activity. Some individuals have had reduced course loads either by granted remission – a very small number – or because their supervision of graduate students accounts for part of their teaching load. It should be noted that many faculty assume extra teaching, without pay, in order to accommodate students. The most common form of this is to expand the enrolment in classes, particularly at the senior level. To us it is clear that as a Faculty of Science

department we carry a heavier teaching load than most others. This is shown in the data from CIAP showing costs per student, levels of staffing and numbers of students taught. It is likely that, through force of circumstance, we devote relatively too much effort to teaching compared to research. However, it would not be acceptable to the members of the Department to reduce their teaching effort to the detriment of the students.

All contracts and grants are consistent with the strategic goals of the Department. It would be difficult for this not to be so. Psychology is in many ways a synthetic discipline with a broad scope. Therefore, the activities of the faculty all contribute to the major strategic goal of being active in the academic discipline of psychology.

The involvement of faculty in community and national and international professional organisations is not even. We generally have one or two individuals involved in NSERC/CIHR committees. The President-Elect of CPA is Abe Ross, who has been very active and successful in healing rifts among various psychology organisations at the national level. Members of the Department help run enrichment courses for Junior High School students, are involved in guiding community-based research into the best way to deliver services for autistic children, are involved in provincial organisations such as the Natural History Society of Newfoundland and Labrador and the Newfoundland-Labrador Human Rights Association, evaluate research on low level flying in Labrador and provide expert advice on various aspects of ecology. There has been a collaborative study with many health care corporations into drug use among school children. Members of the Department serve as judges in the Regional Science Fair, as well as fund prizes for the best projects. Involvement in all of these activities depends on individual interest and expertise and changes among individuals through time.

In the assignment of teaching in the Department, there is a close match with individual research expertise and interest. The only important case in which this is not so is in the teaching of Design & Analysis and History & Systems. While individuals have specialised in the delivery of these courses they do not actively publish in these areas.

E&F: Administrative Support/Efficiency & Cost Effectiveness.

The judgement as to whether the Department receives appropriate direct resources should be based on previous reports and plans and the availability of resources to the Faculty of Science and the University as a whole. The issue of comparative figures for other institutions is simply too involved to deal with in a self-study. If it is going to be done, then there will have to be direct and complex comparisons because there are so many interacting factors. These factors can have profound effects on the meaning of the apparent comparison. For example, whether a department is over- or under-staffed with clerical/administrative staff will depend on the detail of the functions that have to be undertaken at the departmental level compared with the faculty or university level. Student/faculty ratios may crucially depend on terms in the faculty agreement, how much and what quality of assistance is available, how many laboratory sections have to be taught etc. Appendix E1 contains some considerations relative to comparisons with other universities. Comparisons within the same university, on the other hand, are more direct and less complicated by differences of context. While it may be accepted that different disciplines function in different ways and have different requirements, gross differences in levels of support surely indicate institutional choices.

There has been evidence of positive support from the Dean of Science. The External Review Committee report of August 1994 (Appendix B2) stated "... Allowance must be made for the impending requirements to replace the outdated and probably unrepairable Atari computers. If the number of majors is not reduced, this facility may need to expand."(p.17). The Atari's have been replaced and a new facility added. The new facility, which is equipped with Unix workstations, has greatly relieved the load on the original computer facility. This laboratory (SN-2071) is the only addition in space that the Department has received. It is worth observing that the use of our computer laboratories is heavy and the new facility remedied a situation where, in one of the main semesters, the older laboratory (SN-3071) was booked throughout the day and every evening except Friday. We appreciate the new facilities and make good use of them.

In terms of space allocation and renewal a number of priorities now exist – adequate space for teaching Animal Behaviour, re-equipping the older of the computer laboratories (SN-3071) and the expansion and renewal of the space now used for Social Psychology research. Given the arrangements of the current timetable in which the academic unit has to supply teaching rooms for seminar type classes, rooms must be allocated that can serve this function. We also need, as a matter of urgency, some space in which honour's projects can be built and executed.

Judged against other departments in the Faculty of Science, we are not appropriately supported and, by certain yardsticks, this is also true compared with other departments in the Faculty of Arts. This is not new; the External Review Committee of 1994 (Appendix B2) in a section on 'Position of the Department within the University' included the following: "To the members of the review committee these data provide compelling evidence that relative to other Science Departments, Psychology is under-staffed and under funded." (pp.16-17). This situation has not appreciably changed. Table E1 shows relevant data extracted from Table 3 of Selected Indicators from the Academic Unit Profile 2000-2001 (Appendix C3). It is also worth noting that the Undergraduate Registrations per Regular Full-time Faculty for the Faculty Science is 150, for Psychology it is 267.3.

Category	Faculty of Science	Psychology	Psych/Science(%)
UG Registrations	30,456	7,751	25.45
Grad Registrations	442	33	7.47
Regular FT faculty	203	31	15.27
Regular FT staff	136	7	5.15
UG degrees	440	88	20.00
Masters degrees	51	12	23.53
PhD degrees	15	2	13.33
Net Expenditure	\$23,557,561	\$2,835,959	12.04

Table E1. Registrations, faculty, staff, degrees and expenditures for 2000-2001.

The infrastructure support from the library is reflected in the statement from the University Librarian attached as Appendix E2. Electronic access to a number of journals has been a considerable benefit to the research function of the Department.

The 1994 External Review Committee (Appendix B2) commented upon the provision of support staff as follows: "... the amount of staff support is anomalously low in psychology. It must be the case that faculty are performing clerical, managerial and technical tasks that, in a better staffed department, would and should be done by secretaries and technicians." (pp.17-18). Since that time we have lost one-half of a purchasing clerk, and our purchasing is now done, very well, by a member of staff in Biology, and one member of the clerical staff. The reduction in clerical staff is a reflection of the changing nature of the work in the Department. Every member of faculty and a majority of graduate students have access to computers and provide their own word processing. We have also reduced to a trickle the number of memoranda that are distributed by instituting a mailserver so that members of the Department receive notices and information through their e-mail system. The reduction in administrative staff would suggest that we have become more efficient.

There is one Laboratory Instructor and one Instructional Assistant. As is clear from the data above and from the comments of the 1994 External Review Committee (Appendix B2), this is too few compared with other departments in the Faculty of Science. Necessarily, faculty are undertaking tasks that would be more appropriately undertaken by teaching support staff. They have to do so in order to teach their students.

With respect to computer support we are in a very precarious situation. Many of our required courses make use of the departmental computer network and its continuous, efficient function is critical to our delivery of instruction as well as to the conduct of research. To support this enterprise we have one specialist who acts as system manager, system designer, maintainer and software developer. We need another support person and this is included in the budget for this year.

Given the number of faculty, the number of students and the diversity of our functions we have very few staff. Those we have contribute at a very high level to the academic and strategic goals of the Department. The comments of the External Review Committee (Appendix B2) are still relevant.

Included as Appendix E3 is a graph of the losses and gains in faculty in the Department since 1995 and projected until 2025. The projections show the best case scenario in which individuals retire at the mandatory retirement age of sixty-five. Given the provisions of our pension plan, faculty and staff may retire without actuarial penalty after thirty years or on reaching the age of sixty. Were faculty to exercise that option the situation would be worse than that presented here.

As is clearly evident the Department will not be able to sustain its programmes within a very few years. The effects will be uneven as certain specialities fall below a critical size to sustain both undergraduate and graduate programmes. Members of the Department appreciate that the University has been living through difficult times in which funds have been short. Nevertheless, it should be emphasised that the 1994 External Review Report (Appendix B2) and the 1995 Five Year Plan of the Department (Appendix D4) included clear projections of this situation. The University must decide to support our programmes by implementing faculty renewal immediately.

It is relevant to point out here that there is some evidence of a lack of even-handedness in the way faculty renewal has been dealt with at the University. Although Skinner had received a NSERC operating grant and both the Department and the Dean had recommended appointment as a tenure-track Assistant Professor, this was rejected under the policy of a hiring freeze: instead she was offered a contractual position. That freeze was more apparent than real. Appendix E4 is a list of fifty appointments that occurred during a period of this hiring freeze. Note that in that list of appointments not one is in Psychology yet the Department certainly has a profile of efficiency compared with other departments in both the Faculty of Science and the Faculty of Arts.

Future Directions

Undergraduate Programme

Substantial agreement was reached as a result of the self-study (see Teaching Retreat Summary, Appendix C1) that:

1. it is time to change our undergraduate programme
2. there is a core curriculum of knowledge and skills to which all psychology students should be exposed
3. courses should be taken in a coherent sequence which allows for progressive coverage of material
4. lab courses are an essential component of the programme, but they should be de-coupled from lecture courses to allow for more flexibility
5. a general degree programme is essential, but opportunities for specialization should also exist
6. more applied, integrative and specialized courses should be developed
7. the programme should be as flexible as possible and give students as much choice as possible while maintaining the need for coverage of core material and coherent sequencing of courses.

The next step is for a committee to proceed with the development of a detailed curriculum.

Graduate Programme

A viable graduate programme with greater focus, integration and coherence should be achieved by offering a programme for cohorts of students regardless of their primary interest, and drawing effectively upon the various strengths of department members (see Futures Committee Discussion Paper, Appendix C4). We intend to pursue these goals with a retreat procedure, involving all of the current graduate students similar to that used to evaluate the undergraduate programme.

We are strongly committed to offering *both* basic and applied graduate specialities. In addition to strengthening our Applied Social Programme, we strongly support the establishment of a Psy.D. programme. We currently chair a university-wide committee of the School of Graduate Studies to develop a proposal for a Psy.D.

Research Directions

It is clear that our research strengths are intimately linked to our teaching needs. The particular research strengths that develop will depend, in part, on the teaching specialties in which faculty are hired. See Appendix D3 for a more detailed discussion of research strengths and directions.

We envisage that we will maintain strength, and continue to grow, in our current areas of Behavioural Neuroscience, Biopsychology and Developmental & Cognitive Sciences. Social Psychology will emerge as a stronger area, in part because it has a very successful graduate programme, and is in urgent need of staffing. Similarly, if the Psy.D. is implemented, we can expect increased research in clinical areas. These developments would give us research strength in much needed applied areas of psychology and lend balance to our department.

Appendices

- B1a Undergraduate Enrolment
- B1b Graduate Enrolment
- B2 Report of the External Review Committee (1994)
- C1 Calendar Descriptions of Undergraduate Programmes
- C2 Undergraduate Teaching Retreat Summary
- C3 Selected Indicators from the Academic Unit Profile 2000-2001
- C4 Examples of Courses with Potential Overlap
- C5 External Reviews of Graduate Programmes
- C6 Future's Committee Discussion Paper
- D1 Course Evaluation Questionnaire Reports Fall 2001
- D2 Memorandum on the University Assembly on Research
- D3 Faculty CVs
- D4 Department of Psychology Five Year Plan (1995)
- D5 Academic Unit Profile
- E1 Comparisons in Context
- E2 Statement from the University Librarian
- E3 Faculty Complement: Gains and Losses
- E4 Hiring Freeze Appointments