

**SIMON FRASER UNIVERSITY
OFFICE OF THE VICE-PRESIDENT, ACADEMIC
MEMORANDUM**

To: Senate

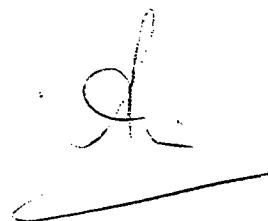
**From: Alison J. Watt, Secretary
Senate Committee on
Academic Planning**

**Re: External Review
School of Kinesiology**

Date: May 12, 1992

Attached is a summary of the External Review report of the School of Kinesiology for the information of Senate. The review was discussed and received by the Senate Committee on Academic Planning at its meeting on 6 May 1992.

Senators who wish to review the complete external review and departmental response should contact Secretariat Services for copies.

A handwritten signature in dark ink, appearing to be 'A. Watt', with a long horizontal line underneath it.

External Review - School of Kinesiology

The School of Kinesiology was reviewed in November 1990 by the following review team:

Member Dr. Robert Mirwald, Professor and Dean
Faculty of Physical Education,
University of Saskatchewan

Member Dr. Robert Norman, Professor
Department of Kinesiology
University of Waterloo

Chair Dr. Warren L. Veale,
Department of Medical Physiology,
and Dean, Faculty of Physical Education
The University of Calgary

Internal Member Dr. Marilyn Bowman, Professor
Department of Psychology, SFU

The committee reported in January 1991, but because there was a change in the Directorship in the School, the response from the School was delayed in its preparation.

The recommendations of the review committee are attached.

13 May, 1992

VII. RECOMMENDATIONS

1. With the appointment of a new Director, a comprehensive review of the School of Kinesiology be undertaken to provide a definition of focus and mandate, and the development of a strategic plan which addresses faculty and support personnel, equipment, facility space, undergraduate and graduate curriculum, etc. The Director should be given the support and assistance of the Dean of Applied Sciences and the Vice-President (Academic), but should be held accountable to meet these goals within a realistic timetable.
2. The Director and faculty must fully and openly discuss the goals and objectives of the School within the framework of the University. Rationalization of curriculum, research, scholarship, workloads, etc., must be addressed and a consensus reached on the mandate and focus of the School of Kinesiology within the broad university objectives of teaching, research, and service. Following this discussion, the Director should develop a plan for the School of Kinesiology to reflect and implement the consensus position.
3. The undergraduate curriculum should be thoroughly reviewed following the implementation of recommendation #1. Dependent on the definition of the School's focus, it is imperative to provide curriculum revisions which will strengthen and enhance the Kinesiology curriculum. Implied within this recommendation is the question in what areas should the two new faculty appointments be made. The faculty appointments should be made upon the implementation of recommendations #1 and #2.
4. The Director, in consultation with faculty, must address the space allocation within the School prior to the completion of the proposed new laboratory wing. Consideration should be given to providing space or the rearrangement of existing space to allow for: realignment of the main office; faculty and staff room; undergraduate and graduate student common room; and new laboratory space.

5. Given the curriculum and research demands, the School of Kinesiology requires additional technical support. There is a need to address and rationalize the current allocation to the School. The Dean of Applied Sciences and Vice-President (Academic) must recognize this impediment to the delivery of undergraduate, graduate and research programs. In addition, the continuing major equipment needs of the School and its programs must be recognized by the Dean and Vice-President.
6. The Director should review the administrative structure of the School of Kinesiology and make recommendations.

SIMON FRASER UNIVERSITY

Office of the Director

memorandum

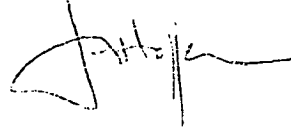
To: Dr. J. Munro, Vice President, Academic
Dr. R. Marteniuk, Dean, F.A.S.

From: J.A. Hoffer

Date: 29th April, 1992

Re: External Review

Please find our School's response to the External Review that took place in November 1990.



JAH/ta

RESPONSE TO THE EXTERNAL REVIEW OF KINESIOLOGY

April, 1992

prepared by

J. Dickinson, (Director until 30 April, 1991)

I.B.Mekjavic, (Acting Director, 1 May - 30 November, 1991)

J.A. Hoffer, (Director, since 1 December, 1991)

The review of the School of Kinesiology occurred in November 1990. The timing of the review was in some ways opportune and in other respects was a poor choice. The advantage of the timing was that the review came in the last year of the outgoing Director's term. The review therefore provided a useful starting point for the new Director. The internal self-study report accumulated and summarized a large body of information which is a valuable resource for the Director-elect and should facilitate his rapid understanding of the School and enable him to make recommendations for change more easily.

The timing of the review was less favourable with respect to the dynamic change that was and is occurring within the School. The School was entering a phase of rapid change in terms of both physical space and faculty complement. Because of this, many of the recommendations of the report were already out-of-date by the time that it was received.

The response to the external review has also been complicated by the many changes occurring in the School. The faculty agreed that it was best to delay the response until the new Director had assumed his responsibilities. Also, it was agreed that the response should convey the School's vision, both short term and long term. Since the School was holding a Retreat following the external review, it was felt that some of the issues addressed by the external review could be discussed, and the view of the School incorporated in the response.

Finally, the School was hesitant to respond to the review by offering its view on how it will address some of the critical issues in the long term, prior to the new Dean and Director presenting their strategic plans for the Faculty and School, respectively. Strategic planning is now on the agenda at both the Faculty and School levels. The School will hold a retreat early in the Summer Semester, 1992, specifically on this issue.

General Comments:

The review presented relatively few direct recommendations and involved relatively little evaluation of the teaching and research of the School. In that respect, it was disappointing. The most general comment of the reviewers was with respect to the question of focus of the School's teaching and research. This perceived lack of focus was levelled as a criticism of the School in at least six different sections of the review and, therefore, deserves a separate commentary. A question that needs to be asked is whether a "focus" for an interdisciplinary and multidisciplinary unit is desirable at all. The vast majority of academic units, even within the most traditional departments, seldom have a single focus for their research or teaching. Within Kinesiology at Simon Fraser University there were, at the time of the review, 15 1/2 faculty members whose terminal degrees emanated from eight different disciplines, with interests ranging from engineering to biochemistry and clinical medicine to psychology. While interesting interdisciplinary research occurs within the School, the probability that these individuals could all subscribe to a single focus is slight.

In addition, all except one faculty member, received external funding for support of research. Many of these grants are of the "individual operating" type. They are awarded on the basis of excellence in research and frequently have highly specific goals of development. The opportunity researchers have to change their orientation while maintaining their research funding is somewhat limited and the value of doing so, in order to achieve a focus for the School, is debatable. It is also worth noting that many of the faculty are mature researchers with national and international reputations in their diverse fields. To anticipate that they would be willing to change the direction of their research in order to conform more closely to some focus, which may have limited value, is probably naive.

This is not to suggest that cooperative research within the School does not occur or that it should not be more actively encouraged. However, it does suggest that a single focus is probably neither desirable nor achievable. An alternative view, that there should be "streams" or "foci" of research, has merit. To a greater or lesser extent these exist already and, while not made explicit within the internal self-study, nevertheless are implicit in the research groupings within the School. The report, therefore, should serve the useful function of encouraging the School to make these research streams explicit and to identify them as the foci of the School. This should, however, in no way detract from the academic freedom of faculty to pursue lines of research and enquiry which may be relatively independent from such streams or foci.

The question of focus of the School was a major item of discussion at the Departmental Retreat held in July, 1991. There was general disagreement with the perception of the external reviewers that the School had departed from the traditional focus of Kinesiology, namely Human Movement. Our School was a pioneer in the field of Kinesiology in North America. Though originally our main, and only, focus was Human Movement in classical terms, we have come to appreciate that Human Movement does not only relate to Exercise and Physical Education, but it also relates to numerous diverse areas, which are currently represented in our School; including Ergonomics, Environmental Physiology, Motor Behaviour and Rehabilitation. The development of our expertise in these applied areas was only possible with the established base in the traditional fields of Physiology, Psychology, Biochemistry, Biomechanics, Neurophysiology, etc. It is not surprising that a small department with such variety could be perceived as lacking focus, especially if its long-term vision were not appreciated. However, it is quite clear from our present expansion, that we have not only established a critical mass of faculty in each area, but that these expanding areas have overlapped and consequently garnished collaborative research projects.

Specific Responses:

These responses will be limited to comments made by the external reviewers and will be identified by page numbers in the external review.

P.7: A Question of Definition and Title

The review criticizes the definition of Kinesiology used by the School and claims it is unacceptable to "walk away from the traditional focus of Kinesiology, human movement...." Language is a dynamic phenomenon in which the evolution of words and their referents is in a constant state of flux. Less than 20 years ago Kinesiology was still defined as biomechanics and in some areas this narrow definition is still applied. To suggest that a discipline should be limited in its study to what its title meant at some arbitrary point in time is to deny both the dynamic nature of research and language. A good example is the extent to which ergonomics and human factors have come to be part of Kinesiology. One reviewer (Norman) from Waterloo has been a significant proponent of this development in Kinesiology. Much human factors research has little to do with human movement and we therefore find it surprising that the review should repeatedly criticize the evolution of the discipline in this way.

It is our contention that Kinesiology is defined by what we do and not by any historic limitations. There is, however, one rationale for change which is compelling. Many traditional departments of Physical Education, aware perhaps of the academic prestige achieved by Schools of Kinesiology such as ours, are changing their name to Kinesiology with

little or no modification to their curriculum or the quality of their research. Another review of the name for the School might therefore be in order. When the evolution of the meaning of the word Kinesiology was in our own hands (i.e., when we were one of only two or three similar departments) we could have confidence in the perception of the field externally. If the definition becomes coloured by what a large number of other, often academically inferior units, are doing, then a debate over the name is probably appropriate.

In view of the fact that our School has been the pioneer and a leader in the establishment of the study of Kinesiology, it seems unwarranted to question its initiative to expand beyond traditional limits. While Kinesiology at S.F.U. was a department, this concern might have been valid. Concern would also be warranted had we retained our original structure despite evolving into a School. The process of redefining our Department to a School was not one of convenience. It was a step in the natural development of our Department. This more recognizes that we have the nuclei of several departments evolving in our School. As such it should be viewed as a bold initiative taken by our School which will no doubt be adopted by other units in North America.

P.8: Recent Hiring Practices

The review suggests that recent hiring practices could be considered irresponsible. The position appears to be that seeking the best qualified individual should not be used as a hiring strategy and that the best candidate within a narrowly defined field or segment of the discipline is to be preferred. The School of Kinesiology has used a judicious combination of these practices in our opinion. Where there has been an identified specific need, advertisements have been formulated and candidates selected on that basis. Searches for an M.D. and the 3-year search for a biomechanist are good examples. On the other hand, where it has been perceived that adding strength to any of a number of different sub-areas would be equally beneficial, broadly based advertisements eliciting applications from diverse fields have been used, from which the best candidate, irrespective of specific area, has been hired. The success of this combination of practices is reflected in the fact that all faculty hired in the last decade have received tenure (insofar reviewed) and all are active, externally funded researchers. This does not in our view constitute irresponsible hiring.

The broadly based advertisements in recent years reflect the needs of our School in many areas. As a small and evolving department, we could not afford to limit our search to only one specific area, for the fear that we would not attract appropriate Canadian candidates. The main impetus for our previous hiring process was the desire to attract the best scholars in Canada. Our present faculty

roster, clearly attests to the fact that we have achieved this goal.

Recent hiring practices (1991-1992) have been based on the requirements of our undergraduate programme, and have been very specific. Indeed, our search for a Biomechanist has lasted almost six years. Though we had applications from excellent candidates, but whose research could only be considered marginally in Biomechanics, we continued the search until the most appropriate candidate was secured. We now have an ongoing search for an Ergonomist. This is far from a frivolous or irresponsible approach to hiring new faculty.

P.9: Undergraduate Program

The review is correct in stating that the undergraduate curriculum is in need of revision. Such a revision is now underway. We anticipate that, again, existing foci within the School of Kinesiology may be translated into explicit streams of courses for undergraduates. These would be overlapping, but may not have the same core requirements or the same range of electives. This review should be completed within the year.

P.10: Lack of Flexibility

We agree with the external review that a part of the review of the undergraduate curriculum should have, as one of its goals, increasing the flexibility students have in their program. A thorough review of the number of required courses and the ratio to elective courses must be made with a view to eliminating any prerequisites and restrictions which do not serve essential functions.

This issue has been addressed extensively by the Undergraduate Curriculum Committee and discussed at the Retreat. The School is now pursuing a concerted effort to establish four streams in the Undergraduate Programme, which will give the students some flexibility regarding career options, yet the programs will offer sufficient focus in each stream, enabling the students to compete for jobs, and/or continue their studies at a graduate level.

P.10: Counselling

The improvement in counselling is already underway and will be continued.

Since the External Review, we have established a career counselling office, coordinated by the Kinesiology Co-op coordinator. Though we have not made as large strides in our academic counselling, methods of improving this are being discussed by the Undergraduate Curriculum Committee.

P.11: Graduate Program

Many of the comments with respect to the graduate program have already received attention. The demands on teaching assistants will become more homogeneous and controlled under the new TSSU agreement.

The differences in expectations placed on graduate students with respect to Masters thesis requirements is a more difficult problem. With a faculty of such diverse background, expectations from faculty tend to reflect expectations from their "home" discipline. A thesis in engineering may be very different from a thesis in psychology or neurophysiology. A rough equivalence in terms of time, effort and quality is probably the best that can be achieved. As long as opinions of external examiners are sought, as well as internal reviews by the Graduate Program Committee, such equivalence can be achieved.

We agree with the comment that graduate courses should be reviewed for content on a regular basis.

P.12: Research

The comments on research in the review are superficial. The research in the School is discussed in two paragraphs and one of those is more concerned with teaching than research. The only criticism of the research endeavour is that there is little effort made to an "interdisciplinary and/or multidisciplinary approach to research and research questions." Frankly, this is wrong. Listed within the internal report are the cooperative links between faculty in the School and those in other faculties and institutions. In addition there is considerable cooperation within research groups within the School. It needs to be stressed that with a large proportion of faculty supported by "individual operating type" grants, there has been significant individual research. The combination of collaborative and individual research may change as funding priorities and opportunities change. Again, it should be noted that the School is composed largely of mature academic researchers. They are the best judges of where collaboration would be useful and where individual effort is to be preferred.

In the second paragraph the criticism is made that core program courses are often taught by sessionals. In fact relatively few core courses have been taught in this way, but the point is well-taken. The goal of reducing the number of sessionals should be achieved with the new faculty arriving between September 1991 and September 1992.

P.13: Support Staff

Steps to improve the physical workspace of support staff have been recently completed. The main office has been redesigned to eliminate the constant flow of people through the office, and to reduce the noise. Comments regarding the new design have so far been only positive. Staff cooperation and interpersonal relations have improved significantly in the past months.

The electronics workshop has been relocated so that it is more centrally located in the School. Reviews of the functions of both clerical and technical staff either have been made or will be made. As recommended, we agree that a long-term strategic plan should be developed.

Personnel problems that have existed in the workshop have been addressed by physically partitioning the workshop into two labs, and assigning the responsibilities of management and workshop accounting to one of the technicians.

P.15: Space

All comments with respect to space are now obsolete. Before receipt of the review, considerable reorganization and reallocation of space occurred. The internal process was prompted by a thorough review of allocations as well as the need to accommodate new faculty. Current allocations are considerably more equitable and significant pressure was relieved by the new classroom building. However, our space report indicates that we are presently facing a shortfall of 17,000 ft². Recently, we have been allocated 1,000 ft² of classroom space, which will be used to accommodate incoming faculty and faculty presently without offices.

Despite the increase in the space allocation following completion of the new building, we still do not foresee Kinesiology being able to afford the space for a common room for graduate students or undergraduate students, as recommended, desirable though these may be.

Page 22 & 23: Recommendations

Where the recommendations have not already been implemented, we agree that they should be. This is, we accept all of the recommendations.

REVIEW OF SCHOOL OF KINESIOLOGY

FACULTY OF APPLIED SCIENCES

SIMON FRASER UNIVERSITY

NOVEMBER 19, 20, 21, 1990

I. SITE VISIT TEAM

Dr. R. Mirwald, Professor and Dean, Faculty of Physical Education,
University of Saskatchewan, Saskatoon, Saskatchewan.

Dr. R. Norman, Professor, Department of Kinesiology, University of
Waterloo, Waterloo, Ontario; presently Rosenstadt Professor, School of
Physical and Health Education, University of Toronto, Toronto, Ontario.

Dr. W.L. Veale, Professor and Dean, Faculty of Physical Education, and
Professor, Department of Medical Physiology, Faculty of Medicine,
The University of Calgary, Calgary, Alberta.

Dr. M. Bowman, Professor, Department of Psychology, Simon Fraser University
(available for consultation).

II. THE DOCUMENTS PROVIDED

The members of the Review Committee were provided with the following documents:

1. The Charge to the Review Committee
2. The Self-Study prepared by the faculty and staff of the School of Kinesiology
3. Data on enrollment in the Graduate Programs
4. Simon Fraser University Calendar
5. Schedule of the three-day visit
6. Guidelines for the Implementation of External Reviews

Review of School of Kinesiology

November 19 - 21st 1990

III.

Site-Visit Schedule

Arrival 18th November 1990

Dinner: Members of review committee with Dean. (Horizons)

19th November

Arrival on Campus (School of Kinesiology)	9 a.m
Meeting with Director, Kinesiology (K9639)	9.00-9.30
Meeting with VP Academic (Office of VP)	9.30-10.00
Meeting with Dean, F.A.S. (Office of D.A. George)	10.00-11.00
Meeting with Dean of Science (Office of C. Jones)	11.00-12.00
Lunch: Chair, U.C.C. and Chair G.P.C. (DUC)	12.00-1.30
Meetings with Kinesiology Faculty (ASB9705)	1.30-5.00
Tour of Kinesiology	5.00-5.30
Dinner with faculty School of Kinesiology (DUC)	6.30-9.00

20th November

Arrival on Campus	9 a.m.
Meeting with Graduate Program Committee (ASB9893)	9.00-10.00
Meeting with Dean, Graduate Studies (Office of B. Clayman)	10.00-10.45
Meeting with Undergraduate representatives (ASB9398)	10.45-11.30
Meeting with Graduate representatives (ASB9898)	11.30-12.15
Lunch: Dean, F.A.S. Assoc.V.P. Academic	12.30-2.00
Meeting with Kinesiology Lab Instructors (ASB9893)	2.00-2.45
Meeting with Support Staff & Dept. Assistant (ASB9398)	2.45-3.30
Meeting with Technical Staff (ASB9898)	3.30-4.15
Dinner with Director, School of Kinesiology	

21st November

Arrival on Campus	9 a.m.
Meeting with Undergraduate Curriculum Committee (K9624)	9.00-9.45
Meeting Co-op Coordinator (K9624)	9.45-10.30
Final meeting with Dean, F.A.S. and V.P. Academic (AD 3173)	11.30-12.00
Lunch: Dean of Education (DUC)	12.00-2.00
Afternoon meeting of the Committee alone.	
Departure late afternoon/early evening.	

IV. Charge to the Review Committee

The task of the review committee is to examine the unit and report on the following existing conditions and comment on any opportunities for improvement:

1. The strengths and weaknesses of the undergraduate and graduate programs;
2. The size and background of the faculty complement in relation to the unit's responsibilities and workload;
3. The research and teaching contributions of faculty members, including the level of external research support;
4. The adequacy of the support staff;
5. The adequacy of resources provided, including library and computing resources;
6. The provision of office space, laboratories and other special facilities;
7. The quality of graduate student research;
8. The adequacy of support for graduate students;
9. The progress of students through the graduate programs;
10. The effectiveness of the administration of the unit, the relations of the unit with others within the University and with other institutions and the outside community.

V. OVERVIEW

The members of the School of Kinesiology undertook a process of self study which resulted in the document "A Review of the School of Kinesiology" October 1990. It is stated in the preface of this self study document that

The review describes the state of the School at the moment. Where future trends and predictions can be made these have been identified, but speculation in terms of long-term development is not included. There are two reasons for this. Firstly, a new Director of the School is about to be appointed. In part, the rationale for the decision to do an external search was made on the basis that a new Director would contribute to the development of long-term planning. Secondly, the uncertainty in the Province of British Columbia concerning developments in post-secondary education may make such planning irrelevant. For example, decisions with respect to establishment of a Fraser Valley university would have significant impact on the School and its direction.

On page two of the self study document the following perceived mission of the School of Kinesiology is stated.

To strive for excellence in scholarship in the general field of human structure and function;

To educate undergraduate students in the field of human structure and function by providing appropriate courses and programs, and opportunities for practical application;

To train graduate students in the process of research in the field of human structure and function; and

To provide service to the community through providing non-credit courses in areas of the School's expertise, offering testing services within its area of expertise, and liaising with industry through joint ventures, contract work and co-operative education.

The self-study document provides specific information with respect to the history of the field of Kinesiology in Canada and the evolution of the School of Kinesiology at Simon Fraser University. Further details are given of the University Administration and of the School's Faculty, staff, research activities, undergraduate and graduate programs of study, funding and space. The reviewers are of the opinion that the written materials

provided to them were of sufficient substance to form an information base on which to conduct the site visit. Prior to the visit, further information was requested and received related to operating and capital budgets, Faculty workloads and student employment.

The orientation of the external reviewers with respect to the review and report is one in which areas are identified as potentially in need of adjustment and suggestions are made which may improve activities in these areas. Throughout this report the issue of an apparent, probably longstanding, disagreement as to what the focus of the School of Kinesiology is or should be will surface repeatedly. Although the School has many strengths, most of the problems seem to be related to a lack of acceptance of a common focus. We will address this specifically in section 10. The members of the review team sensed that the self-study process had already identified to members of Faculty and Staff that certain weaknesses need to be addressed. Most people with whom we spoke were of the opinion that now is the appropriate time to address areas of concern. In fact, there were significant signs of optimism and an expression that the School had now "turned the corner" and was in a good position to meet the challenges ahead.

It is a concern of the site visitors that the 'self-definition' of Kinesiology could be more aptly applied to a department of Anatomy than to one of Kinesiology. This point is one of the central and primary issues which must be addressed immediately by the faculty, Director, and senior university administration. In reviewing the self study document and comparing past calendar descriptions, it appears that the School has modified its focus and mandate. There are a number of problems that this modification has created, and the following issues must be addressed:

1. The School of Kinesiology must have a mandate defined by its faculty. It is unacceptable to walk away from the traditional focus on Kinesiology, Human Movement, without rationalization or justification.

2. The School of Kinesiology is responsible to define its focus. However, the definition should not be made from a simple pragmatic point-of-view, that is, how the current faculty complement is comprised, but rather from a defensible, rationalized, and justified philosophical base. It could be interpreted by some that the recent hiring practices have been irresponsible. The luxury of hiring on the 'best person' criteria is difficult to defend in the most liberal of environments especially without attention to the needs of the curriculum and students or how complementary the hiring is to the School's research programs. When this practice is applied to a unit without a defined and agreed-to focus, it leads to serious internal and external difficulties which ultimately impact on the university, the School, its faculty, and students.
3. The School of Kinesiology must be held accountable by the Dean, Faculty of Applied Science and the Vice-President (Academic). The School must provide a definition of its focus, but it must be a definition which fits into the University's overall goals and objectives. Therefore, the process to define the unit's focus must include the Dean and the Vice-President. The new Director is the key element in the definition process and he/she should be given central administration support and assistance.

VI. ASSESSMENT

1. Undergraduate Program

A strength of the undergraduate program is that it is research-based and that the members of the Faculty are engaged in active, competitively funded research programs. The Kinesiology program is perceived by some as a very rigid proscribed program with little 'free' election available to students either within the School or through other departments. Given the comments of students, faculty, and members of the Undergraduate Curriculum Committee, the curriculum needs a comprehensive review and a major revision. From a student perspective the current pattern of course offerings when combined with required Kinesiology courses places enormous logistical strain on students.

There are some major deficiencies. Kinesiology is defined from the traditional perspective, human movement, yet there is no required course in the human psychomotor learning area. There is limited faculty support in the biomechanics area. Although there has been sufficient course development in biomechanics, there is insufficient faculty support with only one faculty member. Assuming the School's focus remains within the traditional definition of Kinesiology, consideration should be given to the two new faculty appointments being made in the areas of psychomotor learning and biomechanics.

The teaching approach which is used within the undergraduate program is lecture plus laboratory or tutorial and represents a rigorous and stimulating way of presenting the undergraduate curriculum. The vertical building of courses in the physiological area and, to some degree, in biomechanics is, indeed, a strength.

In the interviews with undergraduate students it was clear that the students were proud and excited about their educational opportunity and the academic challenges placed before them. One area of concern about the undergraduate program is that it would appear that the opportunity for

students to gain exposure in the psychomotor area was limited. Indeed, there is no required course in the social sciences at the present time. There was concern expressed by students of the lack of flexibility in the curriculum which resulted in very little opportunity for courses outside of those prescribed by the School of Kinesiology to be taken. Concern was expressed about the availability of courses from time to time, particularly for students in co-op programs, which could result in waiting a semester or even a year to pick up a required course.

There has been a tendency in the undergraduate program for courses to expand as new faculty have been hired and begin to offer electives in their particular area of research activity. Concern was expressed by both students and teaching Faculty that faculty members did not focus on the core program but rather were more likely to expend their energies in new course offerings in the electives program. An area which seemed to be in need of further development was that of student program counselling. The elective course opportunities give some students the feeling that developing packages of courses, so that they can graduate with a concentration in some area, is overwhelming. The University calendar, by itself, is not an adequate guide. The School should consider developing a student handbook of elective packages, streams within the program, etc., make course selection advising better known to students or, in other ways, improve student counselling.

The members of the Review Committee recommend strongly that the School redefine its focus and areas of emphasis. Once this is done, a review of the undergraduate core curriculum should be undertaken with special attention to the appropriateness of the core offerings and restricted electives. Attention must be given to the logistics of course sequencing as they relate to students finishing their program in the appropriate time.

Graduate Program

Graduate students, for the most part, receive excellent financial support and supervision. Concern was expressed by graduate students to the members of the Review Committee about the time available to devote to research since demands associated with teaching assistantships seem to be increasing. This is a matter that is being sorted out within the Faculty of Graduate Studies at the present time. Concern was raised by graduate students that perhaps the level of expectation for a Masters thesis was a bit inconsistent and that some common level should be agreed upon by all faculty members. The members of the Review Committee had no way of assessing this other than to indicate that as faculty members become more experienced this concern will decrease. Concern was expressed by students that the level of teaching in several courses in the graduate program was disappointing in that graduate courses from time to time were really just undergraduate courses with extra assignments such as research papers. This situation should be reviewed and rectified if necessary.

In general, the graduate programs seem to be operating in a satisfactory manner. The members of the review group were impressed that the members of the graduate committee were well aware of the shortcomings of the program and had already begun to introduce processes to make improvements. These changes must be supported by all members of the faculty of the School of Kinesiology.

2. Faculty Complement - Workload

Specific information was provided to the members of the Review Committee with respect to faculty workload. It appears that the University norm for faculty is to teach two courses in each of two teaching semesters. In the School of Kinesiology the teaching of graduate students is considered an on-going teaching commitment and therefore it is the common practice to allocate three courses per year of formal classroom or laboratory contact. The number of hours per week varies with the course taught from a minimum of two contact hours per week per course to a maximum of six hours per week

per course where the faculty member teaches his/her own laboratory or tutorial. It is also the norm that faculty members in Kinesiology provide individual instruction to both undergraduate and graduate students.

It is the opinion of the members of the Review Committee that 15.5 faculty members, which soon will be increased to 18.5 faculty members, plus 3.5 instructors, represents a sufficient complement of faculty to carry out the mandate which has been identified by the members of the School of Kinesiology. As has already been stated, it is recommended that a process be undertaken which is aimed at refocusing the direction of the the members of the Faculty of the School of Kinesiology in such a way that specific thrusts are identified. At this point in time, there is evidence to suggest that many members of the School are working as individuals with very little interface with others. Once such a review has been carried out and a focus agreed upon, the undergraduate curriculum needs to be re-examined and re-defined consistent with that particular focus. A specific effort must be made to identify the uniqueness of the undergraduate program of the School of Kinesiology. The members of the Review Committee recommend that rationalization be established for the recognition of undergraduate and graduate teaching as well as graduate supervision and research activity in assigning of individual work loads.

3. Research

All members of the School of Kinesiology are active in research and all have published their research in refereed journals within the last two years. Fourteen of the fifteen faculty have received external support for their research within the last two years. Research grants and contracts to Faculty members totalled \$724,000 in the fiscal year 1989/90 which represents almost \$50,000 per faculty member per year. This level of research activity places the School of Kinesiology in good standing with respect to other schools and departments within the University. Further, this level of activity in research also places the School of Kinesiology in a satisfactory relative position with respect to other similar schools in the

country. It is always desirable that more support for research activity be attracted from national granting agencies. There seems to be little effort being made to an interdisciplinary and/or multi-disciplinary approach to research and research questions. Although a critical mass of faculty expertise is required to undertake this approach, there exists within the School of Kinesiology areas of mutual interest and inquiry. Certainly, with 10 out of the current 15.5 faculty members in physiology, one would assume greater interaction and cooperative endeavours within this group.

The concern was expressed that the teaching contributions of faculty members be rationalized in such a way that the research activity and graduate student supervision be factored into the teaching expectations more heavily. Members of the Review Committee were concerned that many individual faculty members seemed to be moving away from teaching in the core courses and recommended electives towards "specialty" electives. As this trend continues, there seems to be the pattern evolving that core program courses are often being taught by sessionals rather than full-time research-based teaching faculty. This is a concern since one of the major reasons for doing research in a University is to keep the faculty member on top of his/her discipline so that he/she is a more effective teacher. It is recommended that this perceived trend be examined and that each faculty member make a strong commitment to the teaching of the core curriculum and recommended electives.

4. Support Staff

The four secretaries within the School seem to be able to carry out their responsibilities with respect to the teaching both in the graduate and undergraduate programs. Of course, additional resources would be welcome in this area and would permit greater support for students and faculty. The lack of communication between members of the secretarial staff seems to be an area of concern. However, the situation is exaggerated by the physical working space for the secretaries which is totally unsatisfactory.

They have been asked to work in the middle of 'Grand Central Station.' In addition, there is no faculty and staff room which further exacerbates the situation. These conditions must be addressed as a high priority in the new space allocation.

With respect to technical support, the two individuals available for general technical support within the School seem to be able to provide a basic support for the teaching needs but to only a limited extent are they able to contribute to the research programs. The two other support staff are committed to the physiology unit (Environmental Chamber). Given the commitment of personnel and resources to the physiology unit, every effort must be made to make this facility self-sufficient. A long-term strategic plan should be developed which would eventually provide some technical relief to the School generally.

5. Library and Computing Resources - Other Resources

The members of the Review Committee had no opportunity to assess the quality of the Library and Computing resources. However, these areas were mentioned by several of the people who were interviewed and it was indicated that these resources were adequate.

In the interviews it became clear to the members of the Review Committee that faculty members of the School of Kinesiology felt that the School had been significantly underfunded for several years. This pattern of funding was related to feeling that research carried out in the School of Kinesiology was not in need of the same level of funding as that carried out in more traditional scientific disciplines. Further, it was felt that with the School of Kinesiology located in the Faculty of Interdisciplinary Studies, comparisons were made between departments and that the "real" budget needs of the School were not appreciated. It is clear that this pattern has now changed. Since the School of Kinesiology has become part of the Faculty of Applied Sciences, the perception and associated depart-

ments have changed and therefore significant increases in budget allocations have been provided in the year 1990. If funding were to be continued at a similar level, then it could be rated as adequate. On the other hand, appreciation must be given to the fact that this School was significantly underfunded for several years and that some makeup is badly needed. An increase in both the operating and capital budgets would permit research monies to have some of the "pressures" removed from them and a significant upgrading of activities would most likely result. These effects would form a positive cascade through the entire range of activities within the School.

6. Space

It became clear to the members of the Review Committee that lack of space within the School of Kinesiology is a problem. It would appear that this is not a concern unique to the School of Kinesiology but is a concern within most parts of the University. The site visitors would like to identify three areas of major concern with respect to space. First, the unevenness of allocation of space to faculty members for their research programs. This is well known to the present Director and he has suggested means of addressing this issue. Nevertheless, active well-funded young investigators are inadequately housed whereas other members of the Department, although not over-housed, certainly are much less under space pressure. A rationalization must be made of the use of space within the School. Some relief from these pressures will be provided with the new building development but this will be offset by the addition of three new faculty members. Second, neither undergraduate nor graduate students have a common room in which they can meet and discuss matters related to their programs. Third, the arrangement of the front office is disruptive to the work of the secretarial support staff.

It is unrealistic and inconsiderate to place full-time support staff in circumstances that are far less than ideal. These individuals are on the job eight hours per day, five days per week throughout the year. They require a work environment that is conducive to productivity. They do not have the luxury of working off-site or at home. In the planning of the new space allocation, serious consideration should be given to the main office issues. Similarly, a faculty and staff room is equally important. Although these amenities may be viewed as less vital from a research laboratory perspective, they provide an informal, social opportunity for faculty and staff. The undergraduate and graduate common room is equally important in that students are important elements in the School's operation. It is suggested that the School begin to realize that students require space and that consideration be given to the conversion of an existing classroom to a student common room.

7. Graduate Student Research

This particular question was not addressed in detail by members of the Review Committee. However, graduate student research is directly related to the research of faculty members which is, as stated earlier in this report, considered to be quite good. In reviewing many of the publications of the faculty members it was clear that graduate students were included on these publications and, therefore, were considered major contributors to the work. Overall, this was not a concern for the members of the Review Committee and this issue is now being monitored by what appears to be a very effective graduate committee.

8. Support for Graduate Students

In general, the support for graduate students is very good. Members of the research committee would like to encourage graduate students to seek outside funding from federal and provincial agencies and not rely totally on funding provided within the University. The graduate committee is well aware of the changes that may improve the support for graduate students

and are taking steps in the improvement of graduate student funding. A new system is now in place for allocation of graduate student support units.

9. Progress of Students through the Graduate Program

At the present time, students in the School of Kinesiology take about the same number of years to complete their Masters and Ph.D. degrees as do those in other graduate programs at Simon Fraser. Members of the Review Committee would describe the progress through the programs as slower than necessary. It is clear that the Dean of Graduate Studies, as well as the members of the graduate committee are well aware of this shortcoming and are taking steps to enforce time lines and to reduce the time in program.

10. Administration

The School of Kinesiology is now about to appoint a new Director from outside Simon Fraser University. This is a positive development and will permit an opportunity for the refocusing of the efforts of the faculty and staff members into a much more defined thrust than existed in the recent past. It would appear that relationships with other units within the University could be more fully developed to the benefit of the School. There are a few examples of interactions with other Faculties but a great deal could be gained by interfaculty and interschool interactions. One of the strengths of the School of Kinesiology is that it has been given significant independence by the present Dean of the Faculty of Applied Sciences. On the other hand, the major weakness of the School is the development, over the twenty years of its existence, of an increasingly hazy focus of mission. The Review Committee is sufficiently concerned about this to discuss it fully. A new director, unless he/she is an experienced University administrator and has the immediate and complete support of the faculty members, may have difficulty resolving this matter.

Several faculty members and students indicated to the site visitors either that there was no focus or direction for the School, or, if there were a focus, they did not know what it was. A few, particularly the newer faculty when asked about the focus, described it according to the statement in the briefing materials as the "scientific study of human structure and function." Two or three people emphasized the need to return to a focus on the science of human movement. The Committee has concluded, indeed, that there is certainly no unanimity amongst even a small majority of the faculty as to what the focus is. Moreover, several of the newer members appear to have no background, and probably little interest in the science of human movement as a focus. We feel that this lack of even a weak consensus is a major problem for the future well-being of the School and must be resolved as quickly as possible. The faculty must either agree to a focus for the School, even if their own interests do not fit, or a mechanism must be set up to rationalize several different foci. Changing the definition of the word "kinesiology" is not the solution. Changing the name of the School, within which two or three "programs" or "streams" are housed may be a possibility. We would like to elaborate.

The briefing materials (page 7) state that "the original definition of kinesiology as a unit devoted to the scientific study of human movement is probably no longer appropriate." The Committee assumes that what is meant by this statement is that the School of Kinesiology is a unit which has changed its interests and activity over the years so that now the definition of the word "kinesiology" is no longer an appropriate description of the interests or activities of the majority of faculty members. The Committee concurs with this statement according to the evidence of the background of recent recruits to faculty, research activities and the nature of a number of undergraduate and graduate courses taught by both junior and senior faculty with professorial rank.

Later on page 7 a definition is proposed "...that kinesiology is the scientific study of human structure and function." The wording of this statement could be interpreted to imply that the word "kinesiology" should be redefined to meet the current interests of the faculty at SFU so that everybody feels central to the mission of the School. The Committee does

not concur with this interpretation, if it were intended. One does not redefine words to match the interests of people. The dictionaries and other sources that were consulted all included the idea of the science of movement in definitions of "kinesiology." Moreover, to the knowledge of the Committee, all Departments, Schools or other units that call themselves "Kinesiology" in both Canada and the USA have as an emphasis, the study or science of human movement.

The Committee feels that the interests of the majority of current faculty no longer correspond to the balance that is required to offer a comprehensive kinesiology program. Kinesiology, according to the original definition of the School and other sources as the science of human movement, involves several sub-disciplines. These include work or exercise chemistry and physiology, neuromuscular control of human motion, psychomotor behaviour, biomechanics and, it could be argued, sociology. All of these, except the last, are included in course offerings at the undergraduate and graduate levels. However, of the current 15.5 FTE faculty, there appears to be only one biomechanist, two psychomotor behaviourists, a person who works in the area of anthropometry and a half-time physician. The others are all involved in physiological or chemistry related research, much of which, according to funding sources and publications, has nothing to do with human movement. The faculty complement is heavily weighted towards the biochemistry/physiology end of the discipline. As noted earlier in this report, this has and will continue to lead to a shift in the nature of the course offerings at both the undergraduate and graduate levels and, thus, the type of education that students acquire. In this regard, it was of interest to the Committee that there was no required course in the program in the social sciences.

POSSIBLE SOLUTIONS TO THE FOCUS PROBLEM

Rather than try to force a consensus on focus, a direction likely to meet with failure, given the current imbalance in faculty interests, it might be useful for the School to consider a name change. Changing the definition of "kinesiology" is inappropriate in our opinion. A name could be selected to reflect the very broad scope of activities that has emerged over the

years and to provide freedom to range for possible future developments. Kinesiology could be advertised as a division or program within the School. In the long term, one might visualize departmentalization of divisions within the Faculty of Applied Sciences. The University has expressed interest in formally stating its activity in the health sciences. A name containing the word "health" might be found.

If a balanced kinesiology program were to be re-established, it is the opinion of the Committee that there should be a social sciences requirement. In addition, the type of biomechanist that is needed is one who specializes in the area of the biomechanics of human motion to complement, not to duplicate, Dr. Chapman's work. With only one biomechanist currently on the faculty, a new hire in tissue biomechanics, cardiovascular or respiratory biomechanics spreads the biomechanics area too thinly. If Dr. Chapman were to leave or take on heavy administrative responsibility, the ability to mount a graduate program in this area of kinesiology would be severely compromised.

Before new faculty are hired the focus issue must be resolved. Disagreement over direction is resulting in interpersonal antagonisms amongst some faculty that are spilling into interactions amongst at least a few staff and students. The current imbalance in faculty breadth has resulted from a rather long-standing lack of focus. This seems to have led to a policy of the hiring, not of people to strengthen weaknesses in the components of a long-term plan, but rather the scientist with the strongest publication record of those who applied for rather loosely defined openings. One faculty member speculated that the chemistry/physiology applicants were stronger because they had several years of post doctoral experience. The research records of applicants in other areas of kinesiology were weaker because their scarcity made them employable at other universities without post doctoral experience. A very strong group of biological scientists has been assembled. We wonder, however, whether some of them will be able to continue to compete effectively for diminishing financial resources with scientists who have much more extensive infrastructure support in faculties of medicine than Simon Fraser will be able to provide.

With the appointment of a new Director, the second task requiring attention after the definition of the School's focus and mandate is the organizational structure of the unit both internally and externally. The School of Kinesiology can be characterized by the unevenness of its operation ranging from faculty meetings to committee responsibilities: for example, the frequency of meetings of Undergraduate Curriculum Committee and the Graduate Committee. Externally, there seems to be little effort made by Kinesiology faculty to be part of the total university community and its formalized committee system. In addition to the inherent responsibility of faculty to be involved in the larger university community, it is simply 'politically' astute to maintain a Kinesiology profile in the larger university community.

VII. RECOMMENDATIONS

1. With the appointment of a new Director, a comprehensive review of the School of Kinesiology be undertaken to provide a definition of focus and mandate, and the development of a strategic plan which addresses faculty and support personnel, equipment, facility space, undergraduate and graduate curriculum, etc. The Director should be given the support and assistance of the Dean of Applied Sciences and the Vice-President (Academic), but should be held accountable to meet these goals within a realistic timetable.
2. The Director and faculty must fully and openly discuss the goals and objectives of the School within the framework of the University. Rationalization of curriculum, research, scholarship, workloads, etc., must be addressed and a consensus reached on the mandate and focus of the School of Kinesiology within the broad university objectives of teaching, research, and service. Following this discussion, the Director should develop a plan for the School of Kinesiology to reflect and implement the consensus position.
3. The undergraduate curriculum should be thoroughly reviewed following the implementation of recommendation #1. Dependent on the definition of the School's focus, it is imperative to provide curriculum revisions which will strengthen and enhance the Kinesiology curriculum. Implied within this recommendation is the question in what areas should the two new faculty appointments be made. The faculty appointments should be made upon the implementation of recommendations #1 and #2.
4. The Director, in consultation with faculty, must address the space allocation within the School prior to the completion of the proposed new laboratory wing. Consideration should be given to providing space or the rearrangement of existing space to allow for: realignment of the main office; faculty and staff room; undergraduate and graduate student common room; and new laboratory space.

5. Given the curriculum and research demands, the School of Kinesiology requires additional technical support. There is a need to address and rationalize the current allocation to the School. The Dean of Applied Sciences and Vice-President (Academic) must recognize this impediment to the delivery of undergraduate, graduate and research programs. In addition, the continuing major equipment needs of the School and its programs must be recognized by the Dean and Vice-President.
6. The Director should review the administrative structure of the School of Kinesiology and make recommendations.