

SIMON FRASER UNIVERSITY

Senate Committee on University Priorities Memorandum

TO: Senate

FROM: John Waterhouse
Chair, SCUP
Vice President, Academic

RE: David Wheeler Institute for Research
In Mathematics Education (SCUP 07-014)

DATE: March 2, 2007

At its February 21, 2007 meeting SCUP reviewed and approved the proposal for the creation of the David Wheeler Institute for Research in Mathematics Education. This Institute will be a Schedule A Centre within the Faculty of Education.

Motion

That Senate approve and recommend to the Board of Governors the creation of the David Wheeler Institute for Research in Mathematics Education as a Schedule A Centre within the Faculty of Education.

encl.

c: R. Zazkis, S. Campbell

SIMON FRASER UNIVERSITY

MEMORANDUM OFFICE OF VICE-PRESIDENT, RESEARCH

TO: Sarah Dench, Secretary
Senate Committee on University
Planning (SCUP)

FROM: B. Mario Pinto
Vice-President, Research

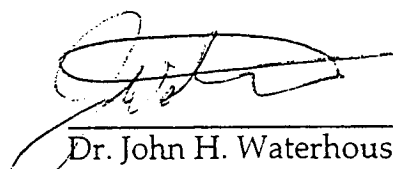
RE: David Wheeler Institute for
Research in Mathematics Education

DATE: February 1, 2007

Attached is a proposal from Dr. Paul Shaker, Dean, Faculty of Education for the establishment of the David Wheeler Institute for Research in Mathematics in Education as a Schedule A Centre.

The Governing Committee for Centres and Institutes recommends that the Centre be granted approval by SCUP. Once approved by SCUP, the proposal is to be forwarded to Senate, followed by submission to the Board of Governors.

Governing Committee:


Dr. John H. Waterhouse
Vice-President, Academic and Provost


Dr. B. Mario Pinto
Vice-President, Research

Attachment

C: Dr. Paul Shaker, Dean, Faculty of Education
Dr. Rina Zazkis, Faculty of Education
Dr. Sen Campbell, Faculty of Education
Dr. Peter Liljedahl, Faculty of Education
Dr. Nathalie Sinclair, Faculty of Education

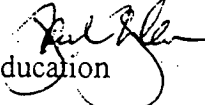
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SIMON FRASER UNIVERSITY
DEAN OF EDUCATION
Memorandum

Received by

JAN 24 2007

Vice President Research Office

To: Mario Pinto, VP-Research
From: Paul Shaker, Dean, Faculty of Education 
Subject: David Wheeler Institute for Research in Mathematics Education
Date: January 22, 2007

Attached is a proposed constitution for a new SFU research institute to be housed within the Faculty of Education: "David Wheeler Institute for Research in Mathematics Education." I support this initiative in full and request that it be considered for further SFU approval. The funding for this institute will be found through external sources, and the faculty members involved are currently working together with Josh Coward, our Advancement Officer, to find financial support.

PS:aln

cc: Rina Zazkis
Sen Campbell
Peter Liljedahl
Nathalie Sinclair

CONSTITUTION

David Wheeler Institute for Research in Mathematics Education

January 2007

1. Statement of Purpose

David Wheeler Institute for Research in Mathematics Education is a research group at Simon Fraser University, combining and integrating a variety of humanistic and scientific approaches in different areas related to Mathematics Education. The Institute's mission is to generate and share knowledge about acquiring mathematical literacy and understanding at all ages and to advance humanity by enriching the lives and options of learners. Current research projects focus on mathematics teacher education in both cognitive and affective domains, on mathematical anxiety, on aesthetics of mathematical experience and on uses of computer technology that promotes learning and teaching.

We also have a special interest in advancing knowledge about the learning of mathematics in general, and situating this knowledge within the lived experiences of learners. We aim to do this by reaching out and drawing on international expertise in a variety of research initiatives. Through community outreach in real world settings, we strive to promote effective change that meets the needs of students, teachers, parents, and the community at large.

We believe in integration of research and practice; as such our outreach programs provide a platform for conducting classroom research and for implementing research results in practice. An important part of this process is ongoing collaboration among researchers and teachers and school districts, as well as the creation of partnerships with the families, administrators, and policy makers who will potentially benefit from our research.

Our research interests are linked by the following inter-connected themes:

- Mathematics teacher education and professional growth of teachers
- Problem solving and problem posing
- Mathematical creativity
- Learning through teaching
- Reaching all learners, from "at risk" to "gifted"
- Improving understanding via brain sciences
- Use and improvement of technology to support teaching and learning.

Several recent and established initiatives support our operation as a research group:

- MSc/MEd program in Secondary Mathematics Education
- New PhD program in Mathematics Education
- MEd off-campus program in Numeracy
- Graduate Diploma program in Mathematical Literacy
- Educational Neuroscience Group for Research into Affect and Mentation in Mathematics Education (ENGRAMME)
- “Q” courses EDUC 211 and EDUC 212
- Our individual involvement in leadership of professional and academic organizations.

We are committed to strong community-university partnerships and strong national and international collaboration. We have several planned initiatives to support this commitment:

- Establishing relations with other “centres for excellence” and research institutes
- Establishing and strengthening existing national and international collaborative projects
- Establishing a family support centre at SFU that includes tutoring and enrichment programs
- Further promoting and revising off-campus programs in mathematical literacy
- Creating an off-campus program that supports secondary school teachers
- Establishing lecture series
- Holding an annual mini-conference that brings together international scholars to work on a designated project
- Establishing a national graduate students network
- Publishing a newsletter for teachers that brings together ideas from the variety of initiatives.

Current Research and Outreach Projects:

- ENGRAMMETRON – Educational Neuroscience Laboratory
- Relearning Mathematical concepts by pre-service teachers
- Professional growth of teachers
- Use of dynamic visualisation software in teaching and learning of mathematics
- Aesthetic dimension of learning and doing mathematics
- MEDS-C – Mathematics Education Doctoral Students Conference (Annual)
- Reading Club – Quarterly meeting of PhD students and faculty on selected key literature in mathematics education
- In-service support in and around numeracy and assessment.

In the Wheeler Institute for Research in Mathematics Education we rely on the strong evidence witnessed in our prior collaborative initiatives and we strive to promote further collaboration among ourselves and with other scholars.

2. *Internal Governance Process and provision for the appointment of a Director*

The name of the Institute; administration of Institute funds and employment of staff will be in keeping with relevant University policies. These functions will be overseen by an executive director elected by and from the members of the Institute for a 3-year term. The executive director will be advised by a committee of Institute members elected by and from members of the Institute.

Contracts and grants will be administered in keeping with the applicable policies and procedures of Simon Fraser University. An annual report shall be prepared by the committee and submitted by the director.

Simon Fraser University will be recognized in all publications of the Institute. The following faculty members will initially act as co-directors of the Institute:

- Stephen Campbell
- Peter Liljedahl
- Nathalie Sinclair
- Rina Zazkis.

Initial membership will consist of graduate students in MSc and PhD programs in Mathematics Education, of several affiliated national and international scholars/collaborators, and of several teachers in the field associated with our programs and initiatives.

3. *Identification of Schedule*

The Wheeler Institute is a Schedule A Institute (R 40.01, page 2) and comes under the direct authority of the Dean of Education.

4. *Obligations of the Institute*

The Wheeler Institute recognizes the obligation it has to conduct its activities in accordance with University governing policies, including R 40.01 – Centres and Institutes. If this document and University policy differ on any issue, University policy shall prevail.

5. *Sources of Funding*

The Institute will substantially finance its activities and initiatives by means of external funding; seed funding will be negotiated with the Dean of Education. Josh Coward, the Faculty of Education Advancement Officer, has been working with us to secure funds for operating our research and outreach activities.

6. *Library resources*

Not applicable.

6.

Date: Wed, 31 Jan 2007 16:07:51 -0800
To: murdoch@sfu.ca
From: "Megan L. Crouch" <mcrouch@sfu.ca>
Subject: David Wheeler Institute for Research in Mathematics Education
Cc: Gwen Bird <gbird@sfu.ca>

Hi Valerie,

I have reviewed the proposal for the David Wheeler Institute for Research in Mathematics Education and have determined that no additional library resources will be required to support it.

I have added the Institute to the appropriate list at <http://www.lib.sfu.ca/about/collections/courseassessments/index.htm>. This will be adequate proof of library sign-off as they move through the approval process.

If you have any questions, please do not hesitate to contact me.

Thanks,
Megan

Megan L. Crouch
Collections Librarian
Health Sciences Librarian
Liaison Librarian for Statistics and Actuarial Science
Simon Fraser University / W.A.C. Bennett Library
8888 University Drive, Burnaby, B.C. V5A 1S6
mcrouch@sfu.ca / Tel: 604.291.4962 / Fax: 604.268.6926

7.

APPENDIX

David Wheeler Institute for Research in Mathematics Education

David Wheeler (1925-2000) is an internationally renowned and beloved mathematics educator who spent the latter part of his 50-year career in Mathematics Education at SFU, after retiring from Concordia University in the early nineties.

Through the course of his career, David Wheeler left indelible marks in mathematics education, both in Canada and internationally. *For the Learning of Mathematics*, a journal he established and edited for 17 years (from 1980 to 1997) is a internationally recognized journal, which largely due to his influence has become highly regarded for its focus on learning and its unique approach to communicating ideas and stimulating reflection amongst the mathematics education community. David Wheeler also served as the Canadian representative with the International Commission on Mathematical Instruction (ICMI), and as a member of the International Programme Committee for the International Congress on Mathematics Education (ICME). He was instrumental in the formation and growth of the Canadian Mathematics Education Study Group (CMESG), serving as President of this organization for 10 years.

His impact on mathematics education has been felt for more than half a century, and we have been particularly fortunate to have had him with us at SFU in the last decade of his august career. Colleagues worldwide refer to David as a pioneer, as a visionary, and as a giant of mathematics education. This proposal for the David Wheeler Institute for Research in Mathematics Education is a fitting tribute to his legacy.