

FIRST QUARTER PROGRESS REPORT

PROJECT: #99574 *Fostering interprofessional practice in rehabilitation and complex continuing care through collaboration and virtual learning. (note the title has changed slightly to incorporate OLT grant Appendix A project description title).*

QUARTER: Q4 (April 31 – June 31, 2001)

1.0 PROJECT STATUS

1.1 Deliverables:

a) **Forecast Deliverables:**

Monthly Reports – At the outset of this research, we predicted, as a deliverable, a minimum yield of 16 notes every month contributed to a communal virtual learning environment called Knowledge Forum. Each month, separate views within the database are created to collect interprofessional monthly reports. Participants are asked to contribute monthly reflective narrative professional activity reports to Monthly Reports views within the Knowledge Forum® database. There, participants read and engage in threaded discourse about each other's activity reports with an eye to identifying shared problems of practice and opportunities to advance community knowledge and expertise.

Learning Portfolios – At the outset of this research, we predicted that participants would use the Learning Portfolios View within the Knowledge Forum database as a reflective practice repository. We predicted, as a deliverable, a minimum yield of 16 notes contributed to the Learning Portfolios View monthly. Each month, participants are asked to contribute their monthly reports to their Learning Portfolios and reflect on learning over time.

Knowledge Forum Analysis – At the outset of this research, we predicted as a deliverable, ongoing analysis of the discourse and patterns of activity within the Knowledge Forum database. Analyses address the following question: What are the affordances of using a virtual communal learning environment to foster interprofessional practice and continuous learning in health care?

Problem Solving – At the outset of this research, we predicted that discourse among participants in the database would lead to problem identification and problem solving. The problems would be harvested and stored in a view repository called “Problem Solving Holding Tank”.

b) **Actual deliverables:**

Monthly Reports – Data collection for this project began in November 2000. A total of 8 monthly report views were created in the Knowledge Forum database during the period, November through June, 2001. Although we have already submitted activity on actual deliverables for the period November through March, 2001 in our 4th Quarter Report, we have chosen in this report to update previous information and provide continuous updates in all future reports. The rationale guiding this decision is that participants use the Knowledge Forum® database continuously over time. Temporal analyses therefore promises to answer a number of questions concerning research of this kind, including 1) the life span of communal workspaces; 2) the usefulness of communal workspaces; 3) the functions of communal workspaces.

Table 1 below summarizes patterns of interaction with respect to notes created, read, modified and built-on. During all 8 months, participants exceeded predicted minimum outcomes for notes created (N=16) as observed in the summary table below. During the months of January, March and April, 2001, participants met and/or exceeded maximum predicted participation (N=32notes).

During all months, participants were engaged in discourse about their interprofessional activity and building on to each other's notes.

Knowledge Forum Analysis – Both 4th Quarter and 1st Quarter analyses have focused on quantitative indicators of interprofessional knowledge building such as frequency of notes created, read, modified and built-on (Summary Graphs below). At the moment, we are treating all members of the interprofessional team as a community of practice and therefore have chosen to report group results for notes created, read, modified and built-on. We have previously reported that the group exceeding predicted deliverables for notes created each month. However, we draw the reader's attention to number of notes read by the group during monthly activity reports. On average each note is read, on average, between 15 and 38 times by an individual participant. As well, we have come to discover that historical Monthly Report Views are visited for reading purposes long after the activity of contributing to the view has terminated. This is a significant observation in terms of how a communal database, constructed by employees, functions as both a virtual workspace during time limited activities, and an archival communal knowledge resource. Further analysis will be interested in determining the lifespan of specific views in terms of both duration of collaborative activity, and the life of the view in terms of interest and usefulness as a communal resource. Initial efforts have begun to map interprofessional learning trajectories. We consider Summary Graphs below an initial step toward graphically representing interprofessional activity and learning over time in Monthly Reports Views.

Problem Solving - Table 2 illustrates how interprofessional discourse in the database lead to problem identification and solving of problems at more complex levels via creation of new problem solving views. Although at the outset, we anticipated collecting these problems in a 'holding tank', we are pleased that participants have extended beyond expectations of participation in the Monthly Reports activity, and have created new views called Problem Solving views. Over the past 8 months, a total of 11 new problem solving views have been created in the database. We are currently assessing the degree to which problems focus on tasks versus deep problems of understanding. Further qualitative analysis is required to determine the extent to which discourse in problem solving views leads to resolutions or deepened understanding. However, we consider it hopeful that new views are being created dedicated to advancing the community's knowledge and consider this phenomenon evidence of knowledge-building principles-in-action.

OFFICE OF LEARNING TECHNOLOGIES

Table 1 – Monthly Reports Summary Data Table (Nov 1/00 to Jul 31/01)			
Monthly Reports Views	Notes Created	Participants	Average
Nov-00	25	12	2.08
Dec-00	31	11	2.82
Jan-01	37	16	2.31
Feb-01	26	12	2.17
Mar-01	41	15	2.73
Apr-01	32	13	2.46
May-01	27	12	2.25
Jun-01	25	12	2.08
Monthly Reports Views	Notes Read	Participants	Average
Nov-00	229	15	15.27
Dec-00	396	17	23.29
Jan-01	490	17	28.82
Feb-01	306	16	19.13
Mar-01	692	18	38.44
Apr-01	480	17	28.24
May-01	345	16	21.56
Jun-01	428	18	23.78
Monthly Reports Views	Notes Modified	Participants	Average
Nov-00	29	12	2.42
Dec-00	59	11	5.36
Jan-01	40	16	2.50
Feb-01	21	12	1.75
Mar-01	61	15	4.07
Apr-01	72	13	5.54
May-01	49	12	4.08
Jun-01	67	12	5.58
Monthly Reports Views	Notes Built-On	Participants	Average
Nov-00	10	3	3.33
Dec-00	19	5	3.80
Jan-01	20	11	1.82
Feb-01	13	8	1.63
Mar-01	22	12	1.83
Apr-01	15	7	2.14
May-01	13	6	2.17
Jun-01	8	5	1.60

Summary Activity Graphs for Notes Created, Read, Modified and Built-on

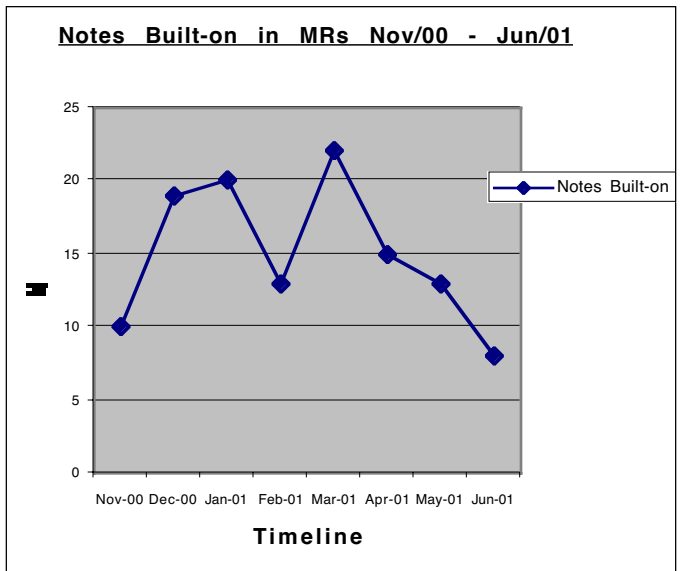
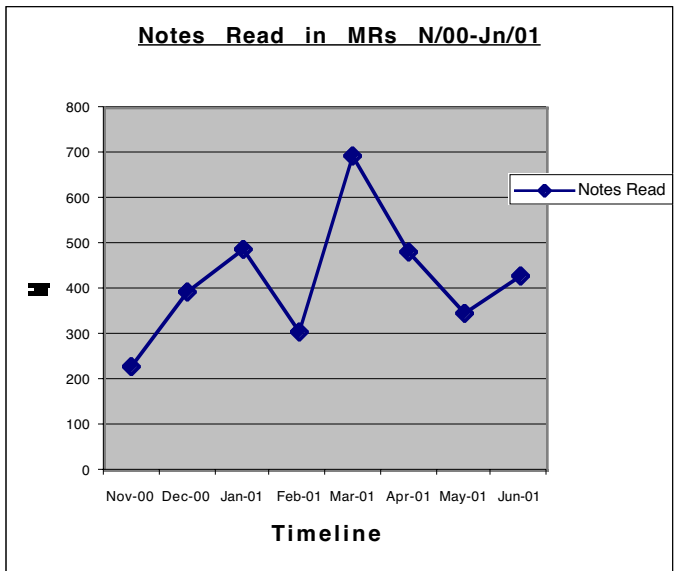
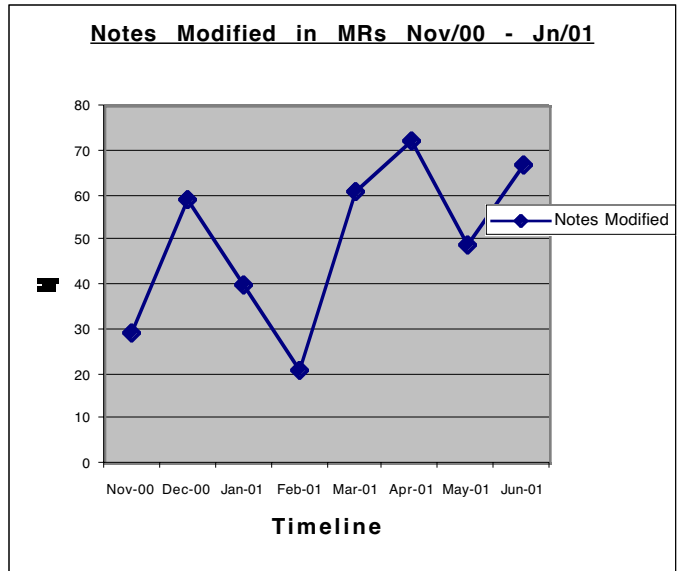
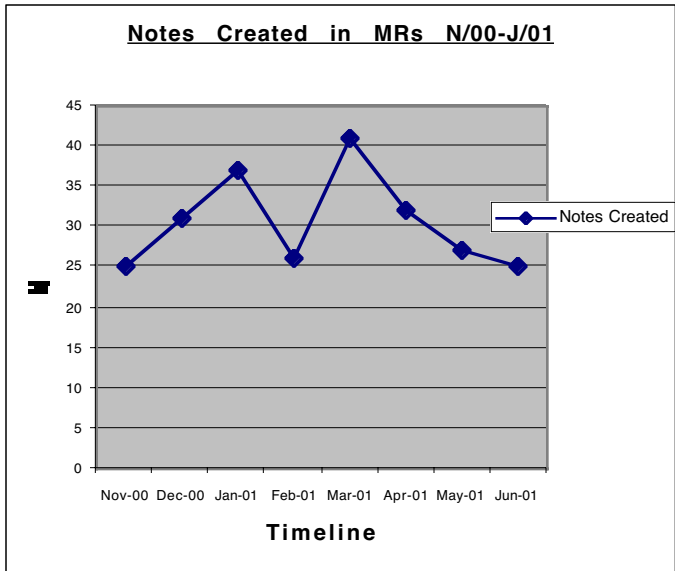


Table 2 - Problem Solving Views (November through June, 2001)

Problems Solving Views	Date Created	Problems of Inquiry
Knowledge Forum Consultations	11/29/01	How to track technical and pedagogical learning needs of participants?
Ethics, Privacy, and Electronic Information Technology	12/06/00	What do we need to understand about provincial and federal privacy legislation and use of virtual technologies in health care?
Chronic Non-Cancer Pain Guidelines	12/13/00	How might Knowledge Forum be used to evaluate chronic non-cancer pain guidelines with complex clinical cases?
Knowledge-Building versus Knowledge Telling	01/30/01	Why is knowledge-building a better pedagogical model in health care education?
Grants and Funding Cycles	02/12/01	How might Knowledge Forum be used for interprofessional grant writing?
Library Services	02/14/01	How might Knowledge Forum be integrated with library services at Toronto Rehab to ensure integration of research into practice?
Virtual Nursing Internship	02/22/01	How might Knowledge Forum be used to support virtual interprofessional mentorship of a graduate-nursing student?
Research Consultations	02/22/01	To collect documentation related to research consultations (interns).
Academic Practice Model	4/23/01	How might knowledge building pedagogy and Knowledge Forum technology help support development of a new model of interprofessional practice dedicated to integration of research into practice?
What's New?!	5/03/01	How might view backgrounds within Knowledge Forum be used as bulletin board of new interprofessional activities and events?
Patient Feedback	5/11/01	How might knowledge-building and Knowledge Forum be used to integrate patient and family feedback into the design of patient goals and treatment plans?

- c) **Variations from last quarter’s stated objectives:** Last quarter (4th) we reported that we abandoned activity in the Learning Portfolios View due to activity elsewhere in problem solving views. Such was the case this quarter as well, and we anticipate no activity in the Learning Portfolios View next quarter either. We will review purpose of Learning Portfolio View with participants in September to determine how this view supports interprofessional practice.
- d) **Areas of concern regarding deliverables:** To date, we have no concerns related to this project and have received positive feedback from participants in the study.
- e) **Next quarter’s forecast deliverables:** Next quarter’s forecast, like this one, will focus on activity in monthly reports and problem solving views, and data analyses.
- f) **Schedule:**

Updated Schedule for Remaining Project Deliverables

Activities	Completion Date	Deliverables
Monthly Reports	March 2002	12 Views, minimum 192 notes
Problem Solving Views	March 2002	6 Views
Learning Portfolios	March 2002	Minimum 192 notes copied into individual Learning Portfolios
Data Analyses	To be advised	Descriptive frequency data of participation patterns over time.

1.2 Budget:

(a) Forecast quarterly expenditures:

Direct Salaries and benefits:	\$N/A
Consultant fees:	\$16,625.00
Direct materials and supplies:	\$N/A
Printing & dissemination:	\$N/A
Evaluation:	\$N/A
Other:	\$N/A

(b) Actual quarterly expenditures:

Direct Salaries and benefits:	\$N/A
Consultant fees:	\$13,300.00
Direct materials and supplies:	\$N/A
Printing & dissemination:	\$N/A
Evaluation:	\$N/A
Other:	\$N/A

- (c) **Variations in expenditures:** We are \$3,325.00 under budget this quarter. We would like to apply these funds for consultation and training of participants at the Knowledge Forum Summer Institute August 21st through 24th. As well, we did not spend the anticipated amount on printing and dissemination and would like to carry over these charges to the next two quarters for conference participation, communication and dissemination costs.

(d) **Budgetary concerns:** None at present.

(e) **Next quarter's forecast expenditures:** \$16,625.00 estimated expenditures for next quarter.

Direct Salaries and benefits:	\$N/A
Consultant fees:	\$16,625.00
Direct materials and supplies:	\$N/A
Printing & dissemination:	\$N/A
Evaluation:	\$N/A
Other:	\$N/A

2.0 OVERVIEW

2.1 Changes Affecting Project

None.

2.2 Dissemination and Promotion Plan

Preparation for upcoming conferences:

1. Russell, A. (May 2001). *Why e-Learning? Benefits and drawbacks of building an e-Learning Environment for Health Professionals*. E-Health 2001: The future of health care conference, Toronto.
2. Russell, A. (May 2001). *Interprofessional knowledge-building in rehabilitation and complex continuing care*. Invited participant in daylong workshop hosted by the Office of Learning Technologies, CANARIE and Health Canada.
3. Campbell, H., Spevakow, D., Russell, A., & Hamilton, L. (June 2001). *Knowledge Forum: Developing chronic non-cancer pain clinical practice guidelines, putting them into practice and using virtual technologies to evaluate*. New Frontiers in Pain, 4th Annual Pain Management Conference, Toronto.
4. Russell, A., Bereiter, C., Scardamalia, M., Campbell, H. (August 2001). *Knowledge-building in health care: Fostering professional development, continuous learning and reflection*. Knowledge-Building/Knowledge Forum Summer Institute, Toronto.
5. Russell, A. (October 2001). *Knowledge-building in health care*. Workplace Learning Conference, Germany-Canada-EU Health Telematics Partnership, Toronto.

3.0 PROJECT DESCRIPTION

I have spoken with Julie Vaillant, Project Officer, OLT about changes to date.

Author: Ann Russell, Principal Investigator
Researcher, Toronto Rehab & OISE/UT
(416) 923-6641, ext. 2454