Final Report						
Project Number:	29					
Project Title:	BC Practice Education Renewal: Collaboration for e-Orientation (e-OPE) for Students and Faculty, Phase #2					
Project Leader:	**Title:**	Ms.		**Name:**	1. Margaret Landstrom and 2. Pat Semeniuk	
	Phone:	604	875-3409	**Fax:**		
	Email:	mlandstrom@cw.bc.ca pat.semeniuk@vch.ca				
Organization:	1. Children's and Women's Health Centre of B.C., PHSA 2. Vancouver Coastal Health					
Project Dates:	**Start:**	Nov. 2005		**Finish:**	March 2007	
Project Overview:	The purpose of this project was to build on the needs assessment for e-orientation completed through the first round of PEIF projects. We proposed to develop e-orientation content for general and specific unit use, integrate these modules into HSPnet, and evaluate their effectiveness in preparing students for placements.					

Acknowledgements

We wish to acknowledge the support for this Phase 2 E-Orientation Project (eOPE), funded by the Practice Education and Innovation Fund (PEIF), from the BC Academic Health Council. We are grateful to the many colleagues in B.C. who have contributed through their input, comments, advice and interest. In particular, we thank the students who agreed to participate in this project and the faculty who provided valuable feedback as well as encouraging students to become involved. We wish to express our thanks to staff from Provincial Health Services Authority and Vancouver Coastal Health for their interest in and contributions to the project and faculty and staff from the B.C. collaborating partner academic institutions and health authorities. We also acknowledge the fine work and assistance from Theresa Roberts, Jaime Woo and the HSPnet team for their technical and administrative expertise and commitment to the project.

Table of Contents

Executive Summary

E-orientation (eOPE) Phase 2 was developed as an extension to the Phase 1 project, which examined the feasibility and requirements to provide e-orientation to support student practice placements. Phase 2 developed a platform in the Health Sciences Placement Network (HSPnet) to support assigning and tracking completion of e-orientation by students before their practice experience, and to assess this function in comparison to traditional orientation events. Faculty and student feedback on this method of providing access to orientation was examined through focus groups and surveys. In addition, Phase 2 developed instructional materials and delivered training on developing e-orientation content using eOPE (an integration of Moodle with HSPnet) for interested project partners. The project also accomplished adaptation of existing orientation content from another system and tested student access and opinions on this method of receiving orientation information.

During two rounds of student pilots (Fall 2006 and Winter 2007), 84 students were assigned to one of three groups to access HSPnet and eOPE, HSPnet access only, or no access (Pilot survey only). 48 students (57% of eligible participants) completed the survey.

Students were able to access eOPE content as assigned to them within HSPnet, and to access a Welcome screen with summary information about their upcoming placement. 75% of students rated HSPnet access as useful before their placement, and 69% would recommend it to other students -- only 13% would not recommend access. Students valued the opportunity to receive orientation content by electronic means, with 67% rating eOPE access as useful before their placement and 67% recommending eOPE access to other students (only 13% would not). Given the high expectations of today's students regarding their online experience, this is encouraging given the limited time to develop content, resulting in little or no video, sound or other interactive tools at this early stage.

HSPNet developed functionality to support assigning students to eOPE content for their upcoming placement, and to track completion of each topic. Orientation content developed by other course authoring tools was transferred successfully into eOPE with reasonable effort, and these courses were also assigned to students and tracked through HSPnet. Several staff from different health authorites were provided with education on designing e-orientation content in eOPE or transferring existing content from other websites or printed materials.

The project met its goals in developing and testing an online method of delivering student orientation and tracking completion, proving that this functionality is possible and desirable to students for practice placements. Further development of content will reduce the extensive time spent by both health care and education staff on repetitive information dissemination and problem-solving activities that result from a lack of clear information for students, permitting them time to mentor more students and/or to mentor students more effectively. E-orientation through HSPnet will also allow student review of content, and provide a means for checking compliance with required completion of orientation.

The project partners recommend implementation of eOPE for academic institutions and health authorities using HSPnet, to streamline and improve student preparation for placements. A key recommendation is establishment of an e-Orientation Steering Committee, reporting to the Practice Education Committee of the BC Academic Health Council with a mandate to select priorities for common, standardized, high quality content eOPE development, to seek funding for these developments, and to promote adoption by relevant institutions.

Introduction

In the first round of the Practice Education Innovation Funds, a collaborative group of BC Health Authorities and Academic Institutions received funding for Phase 1 of the e-Orientation Project. Phase 1 developed recommendations for BC health authorities and academic institutions regarding the development, design, and implementation of a Learning Management System (LMS), to enhance clinical student orientation.

Phase 1 addressed many different aspects of an LMS, in particular features related to the sharing of teaching and learning resources via a Learning Object Repository (LOR); "out of the box" LMS cost; usability; interoperability; integration with the province's HSPnet student placement system, and compliance with e-learning standards. 19 learning management systems were evaluated, of which the Moodle course authoring tool was concluded to be the best available system to customize and implement for a proposed phase 2 pilot project. The key reason for choosing Moodle http://www.moodle.org was related to enhanced sustainability through (1) avoiding dependency on Internet software vendors; and (2) minimizing the initial and ongoing costs of software, hardware, maintenance, and user support.

Phase 1 also provided an extensive inventory of the e-orientation topics needed by clinical practice students. An assessment of existing orientation programs and materials (including media materials) was conducted in order to develop an online template for e-orientation, employing the information that already exists regarding what students need to know before beginning each clinical placement. This template provides guidance for clinical educators so that they can more effectively develop e-orientation content.

E-orientation for Practice Education (eOPE) Phase 2 developed the LMS functions in Health Sciences Placement Network (HSPnet)to support assigning and tracking completion of e-orientation modules to students before their practice experience, and to assess this functionality in comparison to traditional orientation events. In addition, Phase 2 developed instructional materials and provided training on e-orientation content development for interested project partners.

Students were assigned to three groups, one with full HSPnet and eOPE access, one with HSPnet access only, and one group with no access (received orientation only through traditional means). The project transferred course content developed for another LMS into eOPE and assigned this content to students through HSPnet. Students were asked to provide feedback regarding their experience with orientation. Surveys collected student feedback on the three types of orientation experience.

Objectives

The goal of this project was to develop a system and tools with the benefits to:

- students in preparing them for upcoming placements;
- schools in streamlining student access to placement assignments and tracking student completion of required orientation modules, and
- health authorities in streamlining the repetitive delivery of orientation content, significant aspects of which are common across programs and/or agencies.

The system would contribute to increased placement capacity and quality of practice by:

- Assuring the quality of the student's preparation for the placement experience by increasing students access to standardized comprehensive information on policies, procedures, guidelines and practical concerns before they arrive for their practice education placement;

- Reducing the extensive time spent by health care and education staff on repetitive information dissemination and problem-solving activities that result from a lack of clear information for students, permitting them to mentor more students and/or to mentor students more effectively;

- Providing a venue for students to review, renew and verify their knowledge of each practice education site before their placement(s) in order to provide maximum opportunity for learning while on the unit;

- Reducing placement bottlenecks arising from a lack of coordinated e-orientation for student practice education.

By employing an interprofessional and interagency approach, unnecessary duplication of effort will be avoided across programs and across health authorities, since a significant amount of the orientation content is similar for different disciplines and across sites, and can be shared or adapted for each agency and unit. The sharing of modules and templates will allow faster development and more compehensive information. In addition, updates can be readily completed online, assuring current information is available for students and faculty.

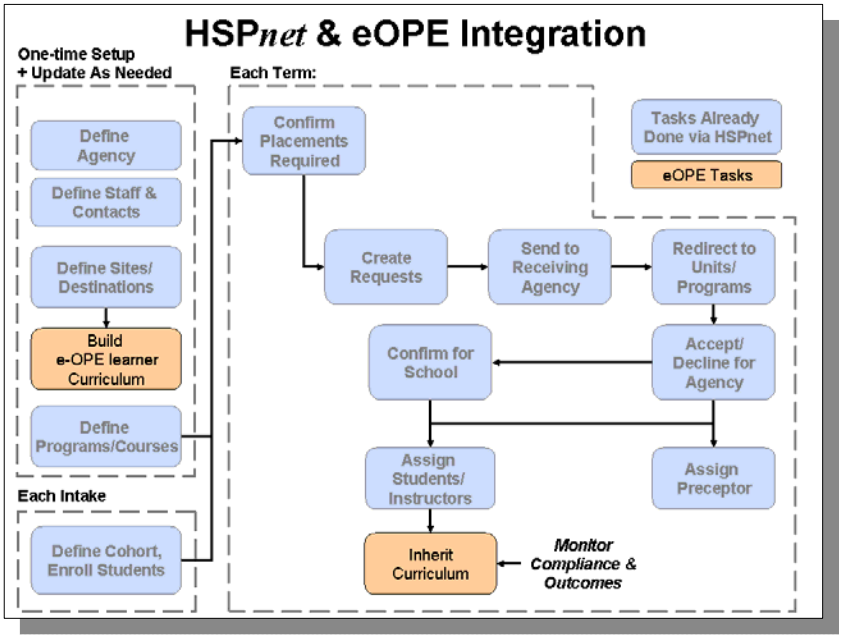
By integrating eOPE with existing HSPnet data and tools, the process of student placement for health profession practice education in BC provides a seamless infrastructure with a familiar look and feel that is already being used by many of the individuals who would be involved in eOPE, including Placing Coordinators who request placements and Receiving Coordinators and/or Unit Managers who assign preceptors and update site and destination profiles. User support and training can be delivered within existing mechanisms and with the benefit of economies of scale with existing HSPnet user training and support.

Methodology and Outcomes

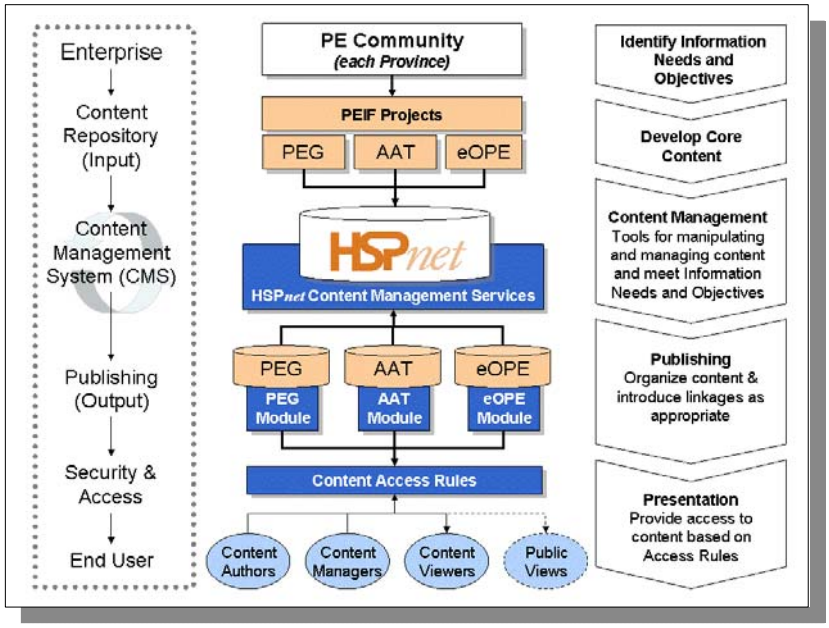
Conceptual Design

This approach to eOPE Development was to leverage existing HSPnet data, functionality, and user support infrastructure, and to integrate as much as possible with related PEIF projects.

HSPnet maintains detailed information on Receiving Agency sites, services, and destinations (units or programs), including an optional detailed Destination Profile. This data structure was accessed by the eOPE module, so that students would inherit orientation



requirements when assigned by their educational program coordinators to an agency destination. The eOPE module would then track student compliance against their orientation requirements, for the potential benefit of both placing and receiving agencies.



Parallel to eOPE Development, the HSPnet Team was involved with developing HSPnet modules to manage online content for two other PEIF projects: Practice Education Guidelines (PEG) and Affiliation Agreement Tracking (AAT). A common set of Content Management Services (CMS) were therefore designed to support all three projects.

The CMS function provides standardized tools for content authoring, regular update, publishing, and access tracking. It also allows organizations to share content by "adopting" content developed by others. For example, a Patient Confidentiality learning module developed by one Health Authority can be adopted as for use in other health authorities, or adapted as needed.

HSPnet Integration with Moodle

The Phase 1 e-Orientation project evaluated several systems suitable for content authoring and Learning Management, and recommended integration of Moodle, a publicly available and widely used course authoring tool. http://www.moodle.org The HSPnet team then designed an integration strategy to integrate Moodle with existing HSPnet functions for placement management, including student assignment to placement Destinations and monitoring of student compliance with placement requirements.

Enhancement	Function	Detail
eOPE User Access	Secure access to eOPE via HSPnet	Establish new HSPnet access levels for content management: • Content Author • Content Manager – allows adoption and/or adaptation of eOPE at the local level • Viewer – view only access to content
Student Access to HSPnet	Secure access to placement information and inherited content	Establish new HSPnet access level for students

Enhancement	Function	Detail
eOPE Content Access tools	Content Repository	Publishing core content for access by subject area (from a Table of Contents) or by agencies that have adopted it
eOPE Topic Templates	Content authoring templates	Provide standardized templates for content development to facilitate consistency and ease of adoption / adaptation.
eOPE Reports		Ability to track eOPE adoption across the system; ability to review learner compliance by access date, survey or test results, and outstanding tasks
HSPnet ↔ Moodle Integration	Seamless integration of Moodle eTopics with access, adoption and tracking tools in HSPnet	Shared authentication (single login ID) Update of student compliance in HSPnet Use of HSPnet CMS to track adoption of Moodle content Inheritance by students of Moodle content as determined by eTopic adoption managed in HSPnet

Transfer of Existing Content

Health Authorities already have some electronic content that is used for staff orientation and information. A significant number of these modules can be used for student orientation as well. There are two options for moving existing content to the eOPE Moodle repository:

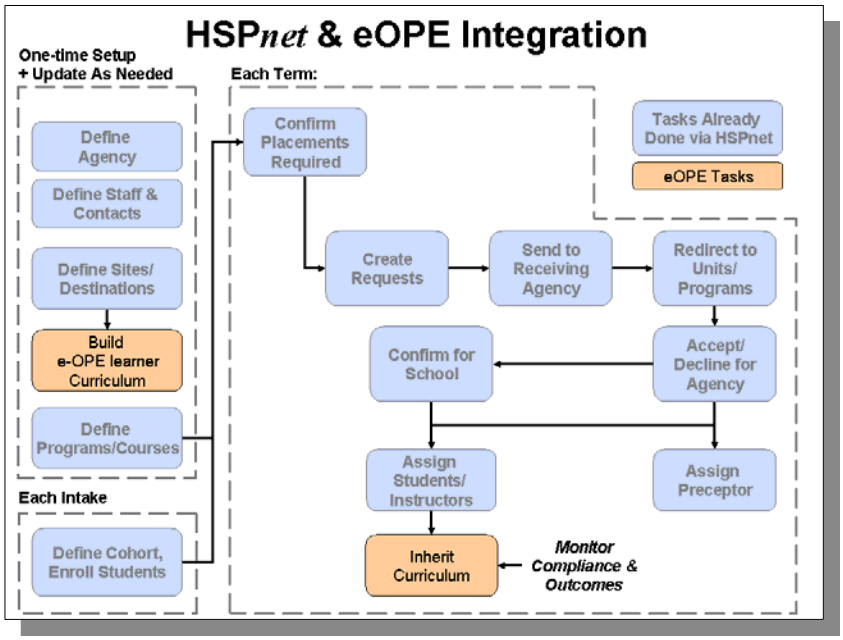
- create a new Moodle course by direct entry or copy/paste of existing text, presentations, and/or images from existing web- or paper-based content; or
- import a SCORM (Shareable Content Object Reference Model) compliant course developed in another course authoring tool.

In this project two existing e-Orientation courses were repurposed for student use and tracking through HSPnet. Infection Control and Waste Management basics e-learning modules, created by Vancouver Coastal Health (VCH) via a SCORM compliant site authoring tool, were imported into eOPE Moodle . Two days of developer effort (from VCH as "exporter" and HSPnet as 'importer") were needed to complete this task. Import of the SCORM compliant modules from VCH was accomplished by:

- "Unpacking" the SCORM compliant files inside Moodle;
- Creating 2 new Moodle courses in eOPE – Infection Control and Waste Management;
- Creating a hyperlink to the "home" pages of the unpacked files; and
- Redirecting post test tracking to the eOPE Moodle MySQL database

Also, some of the orientation content from VCH's static student orientation website was copied into eOPE as Moodle courses. A non-technical end user who attended the eOPE Content Authors Workshop was able to complete this task within 20 hours.

Focus Group Objectives and Summary



The Steering Committee identified a need for focus groups to identify orientation priorities and system access/design requirements. Project resources were reallocated to meet this additional deliverable, which did not impact the eOPE Pilot timelines.

Five focus groups were organized; comprised of students, faculty, and Receiving Agency staff from various health science disciplines. Focus groups ranged in size from six to eleven participants, representing health sciences programs of Nursing, Pharmacy, Physical Therapy, Occupational Therapy, Speech Pathology, Social Work and Unit Clerks. Sessions were 1.5 hours duration and targeted four core questions with a questionnaire at the end. Core questions were:

- What information is needed by students before they arrive for a placement?
- What are the priority topics or areas of interest or value to students?
- What are the challenges to ensuring students complete e-orientation prior to their placement (timing issues, access to computers, stability of email addresses, user ID's and passwords, etc.)
- What kinds of e-learning tools would help reinforce orientation content (multimedia tools, tests and quizzes, interactive prompts, photographs and images, etc.)

The *Proposed eTopics Summary Report* (June 9, 2006) summarized the priority orientation topics and content gathered from the focus groups.

See Appendices:

1. Proposed eTopics Summary Report
2. Focus Group Script (Staff example)
3. Focus Group Survey templates (Staff, Faculty, Students)

Student Consent to Participate

Behavioural Research Ethics Board (BREB) Application and Process

The need for a Behavioural Research Ethics Board (BREB) Application to the University of British Columbia (UBC) was not anticipated in the proposal stage but was identified during early project stages. Considerable research was required to determine whether the BREB process was mandatory for the eOPE project, and a project team decision was made to avoid risks and

delays later by submitting an application. A UBC BREB submission is required for any project (research or other study) involving human subjects in procedures that involve potential invasions of privacy, and when carried out by a person connected with the University.

The process generated significant additional workload for the project, especially given the need to repeat the process for each school and in some health authorities, each with different processes, timelines and procedures. In some cases, UBC's application provided the framework and content for other health science programs and agencies to address ethics application including Kwantlen, University of Victoria (UVic), and BC Institute of Technology (BCIT), and receiving agencies such as Fraser Health Authority (FHA), VCH and Provincial Services Health Authority (PHSA). Unfortunately, the UVic and BCIT processes could not be completed in time to permit their participation in the pilot.

The UBC BREB application was approved by email on October 4, 2006. The review process resulted in a one-month delay for commencing student recruitment, and reduced the number of students eligible for participation before the Pilot deadline of November 30, 2006. Given these impacts, the project team agreed to extend the project by three months to accommodate a second round of student recruitment from December 2006 to January 2007. Approval of this extension was requested and received from the BC Academic Health Council administrator of the Practice Education Innovation Fund. No additional funds were directed to support the extension.

See Appendices:

4. Behavioural Research Ethics Board (BREB) Application Form
5. Consent Form – Students

Student Recruitment and Consent

The project team is indebted to the placing coordinators and instructors whose extensive efforts were required to recruit students and to obtain their consent. Even with these efforts, there was some reluctance by students given the time commitment for completing the online content and Pilot survey (up to 2 hours). We note that study recruitment will not be required beyond the Pilot as the special consent was required for BREB approval of the Pilot study only; students already sign a consent from for use/disclosure of their personal information as part of their educational program's use of HSPnet.

In total, 104 students consented to participate in the eOPE Pilot, although 20 of these students were scheduled for placements after the Round 2 end date and were therefore not eligible to participate.

eOPE Content Development

Content Facilitation Workshop

A key deliverable of the project was to initiate processes leading to development of online orientation content that could be adopted as is or adapted for use across sites and health authorities. Research was undertaken to design an effective toolkit for eOPE Content Authors, supporting them during design and development of content for sharing via the eOPE content repository. In collaboration with Terry Reid, an e-learning specialist at PHSA, the HSPnet team designed a one-day session including a presentation by Terry, small group work on storyboarding techniques, and Moodle training for new content development or conversion of existing content.

The Content Facilitation Workshop was held on September 11, 2006. Workshop attendees included seven Receiving Agency representatives (Content Author trainees) from VCH, Vancouver Island Health Authority (VIHA), PHSA, and Providence Health Care. Potential eTopics had been prioritized earlier by focus groups held in May/June 2006 as part of the eOPE Project Phase 1, and eTopic headings were matched with those of the Practice Education Guidelines Project.

The Workshop covered:

- eOPE Pilot objectives and timelines
- content authorship roles and responsibilities
- e-learning course fundamentals and principles
- independent and interactive course development exercises

In addition, the workshop included a special presentation by Terry Reid, who presented on *e-Learning Development in a Health Care Environment*, including tips on planning and creating effective e-learning courses. Through these content development activities, the following seven e-Orientation courses were published:

- Introduction to Vancouver Coastal Health Orientation (Process)
- Confidentiality
- Prevention of Aggressive Behaviour
- Musculoskeletal Injury Prevention
- Emergency Codes
- Waste Management (SCORM)
- Infection control (SCORM)

See Appendices:

6. Content Facilitation Workshop Agenda

Content Application and Management

Content Managers of each Receiving Agency will build the eOPE curriculum for students placed at their sites. Content managers can adopt content "as is" from the eOPE repository or adapt it as a local variation at the level of one or more sites, services and/or destinations.

eOPE Content Application and Management training was postponed due to limited availability of approved e-orientation content. Given this delay, the Steering Committee agreed to add a new project deliverable to develop e-Learning content for self-paced learning by future Content Managers. This content will be available on the eOPE site and will ensure growth in the number of content managers and sustainability of their skills. In addition, Quick Reference Guides in the HSPnet format were developed as an ongoing reference for eOPE Content Authors and Content Managers.

See Appendices:

7. Quick Reference Guide – eOPE Content Authors
8. Quick Reference Guide – eOPE Content Managers

Student eOPE Participation

Student eOPE Participation involved two placing agencies (UBC and Kwantlen) and two health science programs (Nursing and Pharmacy). Students were grouped into two placement terms – Fall 2006 (Pilot Round 1) and Winter 2007 (Pilot Round 2). Fall 2006 placements covered students placed in October and November 2006, while Winter 2007 included students placed in January 2007. Due to the cutoff date for placement dates that could be accommodated

within the extended Pilot deadline, only 84 of the 104 students who consented were eligible to participate in Round 1 and 2.

Student participants were assigned to one of three groups:

- **eOPE + HSPnet group**– Students in this group received an HSPnet user ID for access to information on their upcoming placement plus access to the eOPE system for online orientation as required by their placement site. This content augmented existing online tools that are mandatory for all students placed at Vancouver Coastal Health sites.
- **HSPnet Student Access Only (SAO) group** – Students in this group received an HSPnet user ID only, and their site orientation occurred via traditional processes.
- **Survey-only or Non-User group** – Students in this group did not receive HSPnet or eOPE access, and received placement information and site orientation via traditional processes.

eOPE Pilot: Participating Students (Rounds 1 and 2)					
Placing Agency/Program	**Number of students**	**eOPE**	**SAO**	**Non-Users**	**Total Assigned**
UBC Nursing	53	24	19	10	**53**
UBC Pharmacy	6	2	3	1	**6**
Kwantlen Nursing	25	9	8	8	**25**
Total Students	**84**	**35**	**30**	**19**	**84**
Percentage		42%	36%	23%	100%

All participating students were asked to complete an anonymous online survey on their experience (if they received HSPnet and/or eOPE access) or on the perceived benefits (if they did not receive access). Students were able to access HSPnet, eOPE, and the online survey from any internet connected computer at school, home, or if available at their placement site.

See Appendices:

9. Student Survey Questions
10. Student Survey Results – Summary

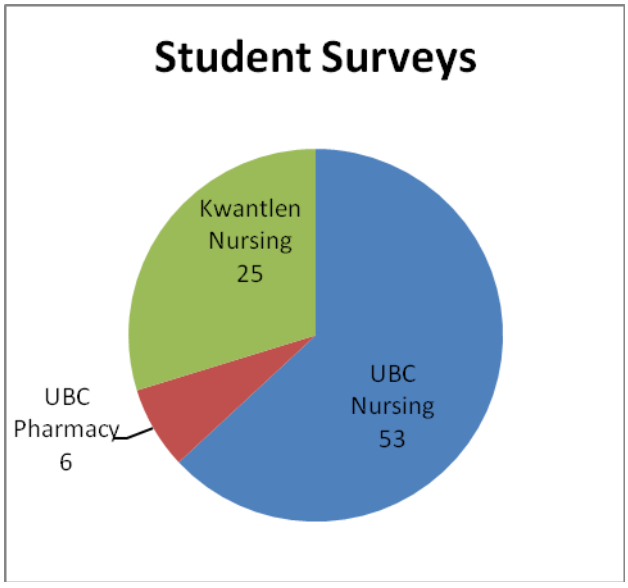
Student Survey Results

Of 84 consenting students whose placement dates fell within Round 1 and 2 dates, there were 48 survey responses representing a **57% response rate**.

93% of students were from Nursing and 7% from Pharmacy.

Students accessed HSPnet and eOPE from:

Home	78%
School	11%
Placement Site	6%
Other (Library)	6 %



35 students accessed the HSPnet Student Welcome screen, while 16 students accessed both HSPnet and eOPE. Of those eligible for HSPnet access, 3 students (9%) did not access it due to technical reasons, and an equal number did not access for other reasons (not sure, insufficient time). Of those eligible for eOPE access, 4 students (25%) reported technical problems, and 5 students (31%) did not access for other reasons (changed their mind about participating, insufficient time).

Of 7 students reporting technical problems with HSPnet, only 3 students attempted to resolve their problem (all via email)[1]. 2 of 3 students felt that email resolved their problem; all students rated the email response as timely. No students attempted to use online help. 6 students reported technical problems accessing eOPE, but only 1 student attempted to resolve it (via email) and 1 resolved it independently.

The Student survey focused on four main evaluation objectives**:**

- HSPnet and eOPE functionality, performance and ease of use
- Student satisfaction with system functionality and support
- Content value and student self-assessment of preparedness for upcoming placement
- Perceived value and contribution of the tools to the practice education experience

Survey Statement: **Functionality, Performance, Ease of Use**	n	Strongly/ Somewhat Agree	Neutral	Strongly/ Somewhat Disagree	Not Sure
HSPnet performance was acceptable	32	72%	19%		9%
Login is easy	33	85%	9%	6%	
Welcome screen well designed	33	73%	9%	18%	
eOPE performance was acceptable	15	67%	7%	13%	13%
Login is easy	18	72%	11%	6%	11%
Screens are well designed	17	53%	6%	29%	12%

Survey Statement: **System Functionality and Support**	n	Strongly/ Somewhat Agree	Neutral	Strongly/ Somewhat Disagree	Not Sure
HSPnet functioned well	32	75%	13%	6%	6%
Email support was timely	3	100%			
Email support resolved problem	3	67%	33%		
Available (on internet) when accessed	32	88%	6%	6%	
Able to print from HSPnet	33	39%	12%	3%	45%
eOPE functioned well	15	67%		20%	13%
Email support was timely	1	100%			
Email support resolved problem	1	100%			
Available (on internet) when accessed	15	87%	0%	7%	7%
Able to print from eOPE	17	35%	18%		47%

[1] Help Desk logs report that 2 students required a password reset; one student was advised to switch to Internet Explorer from an unsupported browser.

Survey Statement: **Content Value and Contribution to Preparedness**	n	Strongly/ Somewhat Agree	Neutral	Strongly/ Somewhat Disagree	Not Sure
HSPnet screen is organized well: • Users • Non-users (from screen capture)	 33 10	 73% 80%	 9%	 18% 20%	
Placement information is useful to students • Users (useful to me) • Non-users (useful to students)	 33 10	 56% 100%	 9%	 28%	
Adequate information received from • Educational program (not HSPnet) • HSPnet Welcome screen	 33 33	 61% 55%	 9% 18%	 27% 27%	 3% 0%
HSPnet information sufficient to replace information from educational program	33	48%	9%	42%	
HSPnet access was useful to me (users) HSPnet access would be useful (non-users)	32 10	56% 100%	9%	28%	6%
eOPE screens are organized well: • Users • Non-users (from screen capture)	 17 25	 53% 92%	 6%	 29% 8%	 12%
Received adequate and timely content	15	53%	13%	20%	13%
Topics are useful to students • Users (useful to me) • Non-users (useful to students)	 15 25	 47% 96%	 20%	 20% 4%	 13%
eOPE content adequate replacement for orientation by another mechanism	10	50%	0%	30%	20%
Time to complete eOPE content reasonable	15	67%	0%	7%	27%

3 respondents suggested the following information be added to the HSPnet Welcome screen:

- Map of the hospital, my ward; If the site has a cafeteria
- Address of the hospital[2]
- Instructor phone/email[3]

Survey Statement: **Value & Contribution to PE Experience**	n	Strongly/ Somewhat Agree	Neutral	Strongly/ Somewhat Disagree	Not Sure
HSPnet access would be useful • Before placement • Until end of placement	32 32	75% 56%	13% 16%	13% 16%	 13%
Recommend HSPnet to other students	32	69%	3%	19%	9%
eOPE access would be useful • Before placement • Until end of placement	15	67%	7%	13%	13%
Recommend eOPE to other students	15	67%	7%	13%	13%

[2, 3] This information is already in HSPnet if entered in Receiving Site profile

Practice Education Partners Forum

On Oct. 16, 2006, The BC Academic Health Council convened a Practice Education Partners' Forum –Lower Mainland. Two of the four purposes of the forum were particularly applicable to the e-OPE project, namely :

- **Share information on practice education (PE) tools currently in development**
- **Promote discussion on uptake of these tools to support PE**

Participants at the Forum were positive with regard to the progress that had been made regarding Practice Education issues since the October, 2004 PE Summit. They perceived developments regarding preceptor training, Interschool/Interagency communications, PE partnerships and sharing of resources, capacity improvements, inter-ministerial coordination, and tools to support student education practice placements.

Both phases of the e-orientation project were described and demonstrated to the forum. Participants were enthusiastic about the potential of e-orientation to provide practice setting orientation for faculty and pre-placement preparation for students in all health profession programs. They agreed that e-orientation would result in students who were better prepared for their placement experience and able to obtain maximum benefit from their practice placement. They also appreciated the fact that e-orientation also would save a significant amount of instructor time that is now taken up with repetitious recital of information for each new individual or group of students beginning a placement experience, time that might better be spent on the practice education experience and instruction.

Participants of the forum expressed an interest in and willingness to share e-orientation content among health authorities and academic institutions, but they expressed concern about the staff time and costs required to develop new content, to collaborate across institutions on content development, or to adapt existing content for application to students prior to their placements.

Conclusions

eOPE is a valuable tool for preparing students for placements. The project has indicated that e orientation provides the opportunity for timely preparation for students in a format they find desirable. E-orientation can be time-saving for faculty and staff, allowing them to avoid the repetitive duty of orienting each new student or group.

The eOPE project has also developed the functionality in HSPnet for developing and sharing content, assigning e-orientation content to students, and tracking compliance. Moodle has been successfully integrated with the functions of HSPnet, and existing e-content can be successfully transferred from other LMS into Moodle.

Recommendations

1. To ensure successful expansion of eOPE use in BC, some issues relating to Student Access need to be addressed. These include the following:
    - Student assignment occurs at the instructor level for some educational programs, rather than by the Placing Coordinator (who is typically a frequent user of HSPnet). There are often delays in the PC receiving the assignment information, and therefore being able to populate student inboxes and trigger their inheritance of eOPE content. Instructors also play a key role in making changes to student assignments, which can also impact a student's inherited eOPE curriculum.

- Timing of student assignment – last minute changes to student assignments are challenging to both students and instructors. If general and specific orientation content becomes mandatory for multiple sites or health authorities, then that content could be made available to students even if they are not yet assigned.
- Student Access – we recommend that educational programs participating in eOPE provide access to all students in an educational program, as a mandatory tool, prior to their first placement and permit continued access throughout their Program to ensure continuity and to minimize support requirements (e.g. password changes).
- The adoption and usefulness of the HSPnet Student Welcome screen would be increased by enhancements to motivate more regular use. Potential enhancements of value to students include an online placement history (already available to educational programs), links to instructor and preceptor information (already available in HSPnet, but not always entered by Placing and Receiving agencies), and expanded site information such as links to a site map or general site information (cafeteria hours, parking information).

2. As a result of the project, the partners recommend establishment of an e-Orientation Working Group, reporting to the Practice Education Committee of the BC Academic Health Council. The Working Group would define priorities for e-orientation development that will be applicable across health authorities and to large numbers of student placements. This Working Group would be charged with searching for, securing resources for and overseeing the development of common content for student orientation. The Working Group would also address copyright issues and establish guidelines for sharing of e-OPE content and learning objects to ensure availability across B.C. and discuss sharing of e-OPE content as appropriate with other members of the HSPnet National Alliance.
3. The inventory of Orientation topics completed during Phase 1, and the results from the PEIF Practice Education Guidelines Project, should be used to assess priorities and develop common, standardized, high quality eOPE content that can be assigned to students through HSPnet. Where compliance with particular behaviours is a priority and where proof of student understanding is required, quizzes and other methods of testing knowledge should be built into eOPE content (for example, to demonstrate student comprehension of patient confidentiality requirements).
4. In-person orientation uses significant human resources relatively ineffectively because of the need for repetition with each student or group. e-Orientation can ultimately reduce this need, thus increasing capacity to mentor students and/or to mentor students more effectively. However, the Steering Committee needs identify resources to support eOPE content development as a replacement for traditional activities that use staff and instructor resources. The capacity of institutions or agencies to develop a significant repository of eOPE modules will be severely limited without targeted resources for content development. At the same time, all agencies and health authorities should be encouraged to develop content, or to adopt or adapt those developed by others as applicable for students in their environment.
5. The HSPnet National Alliance, which oversees the effectiveness of the shared infrastructure to operate HSPnet in six Canadian provinces, is keenly awaiting the results of this project. We recommend that they consider and plan for the impacts of student access to HSPnet and eOPE, especially as instructional strategies using high bandwidth, streaming video, and other interactive tools become common.
6. With regard to further projects that request student feedback, consideration must be given to the significant amount of work and potential delays involved with completing multiple Behavioural Research Ethics Board (BREB) or ethics review applications. Since the type of questions asked of students was of particularly low risk, we recommend that BC academic

institutions develop a common approach and consent form, so that this duplication need not occur in future projects of this type. Alternatively, they might agree to recognize one review for all institutions for similar low risk surveys.

References

E-orientation Phase 1 Final Report, 2006, Practice Education Innovation Fund, Round 1, Project # 21, BC Academic Health Council

Appendices

(See Adobe Acrobat document)

1. Proposed eTopics Summary report
2. Focus Group Survey Script (staff example)
3. Focus Group Survey templates (Staff, Faculty, Students)
4. Behavioural Research Ethics Board (BREB) Application Form
5. Consent Form
6. Content Facilitation Workshop Agenda
7. Quick Reference Guide – eOPE Content Authors
8. Quick Reference Guide – eOPE Content Managers
9. Student Survey Questions
10. Student Survey Results - Summary