Apply PBL and U-learning in nursing education: a pilot approach in Hue University of Medicine and Pharmacy, Vietnam.

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HUE UNIVERSITY OF MEDICINE & PHARMACY

- Founded at March 28, 1957
- One of three largest Medical Universities of SR Vietnam
- Catchment area: nationwide, mainly Central and Highland: 18 provinces (25 millions inhabitants)

Missions: Undergraduate, graduate training and CME; Scientific research and international activities; Diseases prevention and treatment; Comprehensive community health care
TRAINING: REGULAR SYSTEM

UNDERGRADUATE

- MD General Medicine
- MD Preventive Medicine
- MD Traditional Medicine
- MD Dentistry
- Pharmacy (5 yrs)
- BSc Public Health
- BSc Nursing (2001)
- BSc Medical Technology
- BSc Medical Imaging Technique (4 yrs)

4 - 6 years (full-time)

GRADUATE

- Residency (3 yrs) 9 specs
- Master’s Degree: 10 specs
- Specialist level I: 34 specs
- PhD Degree
- Specialist level II: 18 specs

Nat. exam.

TRAINING: REGULAR SYSTEM
MD General Medicine
Pharmacy
BSc Nursing (1998)
BSc Medical Technology

MD, Pharmacy: full-time study
BSc Nursing & M. Tech: part-time study

2-3 years
4 years

Specialist level I: 34 specs
Specialist level II: 18 specs

2 years
2 years

UNIVERSITY/GRADUATE

TRAINED: IN-SERVICE SYSTEM
TRAINING: “TRANSITION” SYSTEM

UNDERGRADUATE

BSc Nursing (2012)

GRADUATE

Master’s Degree

Specialist level I

3 years

1.5 years (full – time)

2 years
NURSING EDUCATION IN HUE UMP
(1998-2016)
INTRODUCTION

• Start training nursing in 1998
• Upgrade from Department to Faculty in 2004 (currently: 4 departments and 1 skills-lab with 22 full-time and 50 part-time staffs)
• Training scale: 300 enrolled students / year
• Training fields: - General nursing
  - Midwife
  - Anesthesia nursing

Degree: BN, CK1
INTRODUCTION
STAGE OF PERSONNEL DEVELOPMENT

- 1998-2005: Doctor domination (100%)
- 2005-2010: Mixed of Doctor - Nurse
- Since 2010: Nurse domination (> 70%)
STAGE OF CURRICULUM DEVELOPMENT

• 1998-2012: Medical – based curriculum
• 2012 -2014: Competence - based curriculum
• Since 2014- present: Redesign towards practice- based/ outcome - based curriculum

+ Needs assessment
+ Capacity building (workshop, training course)
+ Apply new teaching methods (PBL, S-PBL, U-learning)
+ Conduct new teaching/ learning materials
+ Do research/ publication on curriculum development

(based on joint project with CHU funded by MOE, NRF of Korea)
First pilot activity: March 3.2016, Hue UMP has developed and successfully applied the package "Basic nursing 3" with PBL method for 2nd nursing student with the support of CHU.
Apply PBL and U-learning in nursing education: a pilot approach in Pediatric Nursing
Objectives

To assess the possibility of applying new teaching methods (Problem-based Learning and U-learning) in nursing education at Hue UMP
Selected subject: Pediatric nursing

Theory (lecture, seminar) and practice (hospital)

Educational program:

- In regular BSc nursing: year 4 (Theory: 45 hrs, practice: 120 hrs)
- In service BSc nursing: year 4 (Theory: 40 hrs; Practice: 30 hrs)
- Transition BSc nursing: year 2 (Theory: 30 hrs; practice: 40 hrs)
- Midwife: year 3 (Theory: 15; Practice: 60 hrs)
- Anesthesia nursing: year 3 (Theory: 15 hrs; Practice: 30 hrs)
Selected topic for pilot approach: Respiratory problems in children

Theory: 5  Practice: 15
55 nursing students at year 4 (in regular program):

- Trained by Competence-based curriculum
- Non-experience with PBL/U-learning
- Are studying Pediatric nursing
Population

Students are randomly divided into 2 groups:

- **Group 1** (28 students): study traditional teaching methods (lecture + clinical teaching)

- **Group 2** (27 students): study new teaching methods (PBL + U-learning)
Method and assessment tools

Time for pilot study: first semester of school year 2016-2017

The selected topic on respiratory problems in children was applied to two groups of students:

- **Group 1:** Traditional approach: Give lecture for theory, bedside teaching for clinical practice.

- **Group 2:** New method (PBL+ U-learning): developed and implemented the PBL-U-learning package
Method and assessment tools (cont)

- Assess the problem solving understanding: pre-test and post-test
- Assess the problem-solving skills: group work’s report and tutor/observer’s feedback
Results: Learning devices

Learning devices of students

- 1 device: most are laptop (36.54%)
- 2 devices: laptop and smartphone/tablet (58%)
- Have no device for learning (5.46%)
## Results: learning reference tools

<table>
<thead>
<tr>
<th>Tools</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google</td>
<td>55</td>
<td>(100%)</td>
</tr>
<tr>
<td>Medical website</td>
<td>21</td>
<td>(38.18%)</td>
</tr>
<tr>
<td>Borrow learning materials/ books from teachers, senior students.</td>
<td>12</td>
<td>(21.82%)</td>
</tr>
<tr>
<td>Understanding</td>
<td>Before PBL N (%)</td>
<td>After PBL N (%)</td>
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<tr>
<td>------------------------------------------------------------------------------</td>
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<tr>
<td>Enhance the situation analysis and decision making</td>
<td>2 (7%)</td>
<td>9 (33%)</td>
</tr>
<tr>
<td>Improve the capacity of information collecting by different means</td>
<td>3 (11%)</td>
<td>6 (22%)</td>
</tr>
<tr>
<td>Enhance the capacity of self study</td>
<td>1 (3.7%)</td>
<td>15 (56%)</td>
</tr>
<tr>
<td>Accept the critical comments and different point of view</td>
<td>3 (11%)</td>
<td>10 (37%)</td>
</tr>
<tr>
<td>Increase the awareness of responsibility</td>
<td>2 (7%)</td>
<td>5 (19%)</td>
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</tbody>
</table>
Results: Problems - solving skills

PBL is more attractive and effectiveness than traditional teaching methods in problems solving skills.

PBL and U-learning can be applied for clinical nursing education.
Staff involving

Developer group: Phuong, Thanh, Nguyet

Evaluator group: Prof. Kang SJ, Trang, Hai, Duc

Observer group: Prof Tam, Prof Huy, Prof Hoa, Phuc, Thanh
Preparation
### Program in detail

<table>
<thead>
<tr>
<th>Bước</th>
<th>Thời gian</th>
<th>Nội dung</th>
<th>Phương pháp</th>
<th>Hoạt động</th>
<th>Phòng học</th>
<th>Giáo viên</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>7h00 – 11h00 (20/9)</td>
<td>Thực tập tại bệnh viện - Lập kế hoạch và can thiệp chăm sóc bệnh nhân.</td>
<td>Thực tập (5 giờ)</td>
<td>Chăm sóc trên bệnh nhân</td>
<td>Khoa Nhi, BV Trường</td>
<td>Nhóm1: ThS. Nguyễn Thị Anh Phượng Nhóm2: ThS. Nguyễn Thị Minh Thành Nhóm3: CN. Trần Thị Nguyệt</td>
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<tr>
<td>4</td>
<td>14h00 – 15h00 (22/9)</td>
<td>Trình bày hoạt động nhóm - Trình bày những mục tiêu học tập - Cách giải quyết các vấn đề</td>
<td>Giảng dạy có hướng dẫn (1 giờ)</td>
<td>Trình bày Thảo luận</td>
<td>Phòng học đa phương tiện</td>
<td>Nhóm1: ThS. Nguyễn Thị Anh Phượng Nhóm2: ThS. Nguyễn Thị Minh Thành Nhóm3: CN. Trần Thị Nguyệt</td>
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Orientation/ Define problem

Group 1

Group 2

Group 3
Practice at skills - lab
Practice at hospital
Presentation & feedback
Conclusion

➢ Problem-based Learning is a promising teaching method in nursing education including subject with clinical part.

➢ The integration of PBL with new technologies of U-learning can enhance the attraction and effectiveness to the learning process.
Next plan

**Nov, 2016 – Jan, 2017:** Develop and package of PBL-U-learning in pediatric nursing for 2nd year nursing students (transition BSc nursing program)

**Jan, 2017 - May, 2017:** Implementation and evaluation

**June, 2017 - Sept, 2017:** Develop and package of PBL-U-learning in pediatric nursing for 4th year nursing students (in regular BSc Nursing program)

**Sept, 2017 - Dec, 2017:** Implementation and evaluation
Thank you very much for your attention!

Welcome to Vietnam!