Mobile-learning adoption by nurse students as a way of nursing staff empowerment

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Introduction

• **Staff empowerment** was defined as a process through which nursing staff gained greater control over decisions and actions affecting their daily work.

• **Mobile-learning (M-learning)** occurred by using mobile devices including mobile phones, iPads, and laptop computers with internet access by the wireless school Wi-Fi network and own internet services providers.
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Wireless LAN Site Survey Report of School of General Nursing (QEH)

General Information

Site Check Date: 11-Aug-09
PCCW Work order: H91746
Customer Address: G/F-1/F, School of General Nursing, 30 Gascoigne Rd. QEH
Testing equipments: Aruba A800 controller with AP60
Testing WLAN client: Cisco CB21AG WLAN Client Adapter with site survey tools

Customer Requirement

RF band: 802.11 b/g
Wireless LAN coverage: Customer selected area

Total no of propose AP

<table>
<thead>
<tr>
<th>Floor</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>G/F</td>
<td>4</td>
</tr>
<tr>
<td>1/F</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
</tr>
</tbody>
</table>

Remarks & Legend

The red point represents the location of propose access point on the false ceiling.
The yellow region represents the WLAN coverage.

Please note that the signal strength of the WLAN may be dropped or fluctuant if the radio of access point has blocked by thick walls, glass, cylinder, metals, wood or radio interferences.
Nursing school site survey report

Floor Plan of 1/F, School of General Nursing, OEH

Legend

○ - Testing AP Location
The values (red colour) are the signal to noise ratio of the Wi-Fi client (higher is better)
Nursing school site survey report

Floor Plan of 1/F, School of General Nursing, QEH

Legend
- Propose AP Location
- WLAN Coverage

A new rack is required in Rm110
Introduction

- Perceived usefulness and perceived ease of use positively influenced intention to adopt m-learning and contributing to increase staff control over their daily work in administration of medications, and e-patient records in possible future.
Objectives

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2. Perceived ease of use positively influenced intention to adopt m-learning.


4. M-learning adoption allowed staff increase control over their daily work.
WIFI Usage report
Methodology

• Convenient sampling method was adopted.

• Self-feedback questionnaires with 5-point Likert Scale of strongly disagree(1) disagree(2) neutral(3) agree(4) and strongly agree(5) were distributed.

• Respondents were 100 year 1 and 93 year 2 nurse students who were holders of Hong Kong Diploma of Secondary Education (HKDSE). N=164 (85%) were collected.

• Microsoft Statistical Package for the Social Sciences (IBM SPSS Statistics 20) was used for statistical analysis.

• Results were put into mean ± standard deviations. The significant level was p<0.05, with 80% level of confidence.
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• Had resources for m-learning (3.6±0.8).
• Students intended to adopt m-learning for educational purposes (3.9±0.8) were agreed.
Results

The challenges:

• Internet speed well-supported m-learning (3.1±1.0).
• Technical assistance was available for using m-learning (3.3±0.8).
• Students preferred m-learning over other mediums of learning (3.1±0.9) were disagreed.
Outcome

Challenges which were needed to be overcome:

• Limited internet speed (Wang et al., 2009).
• Small screen size (Martyn et al., 2014).
• Low storage (Wang et al., 2009).
• Short battery life (Cibulka & Crane-Wider, 2011; Wittman-Price et al., 2012).
• Lack of data input capability (Maniar and Bennett, 2007).
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• Technical assistance should be available and accessible in future; and
• M-learning would be widely used as one way of staff empowerment.
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