E-Learning for Nurse Continuous Education

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Abstract. The paper compares the effectiveness of a traditional residential and an e-learning course for nurses, and suggests ways to identify the psychological characteristics which might lead people to prefer e-learning education.

Keywords. e-learning, CME, nurses, psychological characteristics

In a 450 bed hospital, a continuing medical education (CME) course on patient handling for nurses was proposed, both in traditional residential form (TC) and in e-learning (EC). The present paper describes the differences between two groups (A, B) of 20 subjects attending respectively TC and EC courses, in terms of personal characteristics and knowledge acquisition. Both the courses provided exactly the same contents and were structured in 4 parts: initial knowledge evaluation test (TI; max. score 31), provision of theoretic and practical information, case based test (CT; max. score 5), post-course knowledge evaluation test (FT). Knowledge improvement was evaluated through the results of TI, CT, FT. Personal psychological characteristics were inspected through Locus of Control (Loc) test [1] and Big Five Questionnaire (BFQ) [2] in order to identify eventual relationships with attitude towards TC or EC. LOC test measures the externality of attribution of cause, while BFQ focuses on many dimensions, among which Mental Openness (MO) and Openness to Culture (CO) have been inspected.

Table 1. Personal characteristics and knowledge evaluation test results for group A and B – mean values

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>TI mean</th>
<th>Mean CT</th>
<th>Mean FT</th>
<th>Mean Loc</th>
<th>Mean MO</th>
<th>Mean CO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P=0.04</td>
<td>P=0.59</td>
<td>P=0.041</td>
<td>P=0.76</td>
<td>P=0.05</td>
<td>P=0.02</td>
<td>P=0.02</td>
</tr>
<tr>
<td>A</td>
<td>35.6 ± 5.2</td>
<td>19.9 ± 5.7</td>
<td>4.9±0.3</td>
<td>28.0 ± 2.3</td>
<td>94.6±10.6</td>
<td>75.9±9.6</td>
<td>38.3±6.8</td>
</tr>
<tr>
<td>B</td>
<td>39.6 ± 6.3</td>
<td>19.0 ± 4.8</td>
<td>4.4±0.8</td>
<td>27.8 ± 1.8</td>
<td>86.8±13.7</td>
<td>82.8±8.4</td>
<td>42.9±5.6</td>
</tr>
</tbody>
</table>

Both groups A and B, starting from the same level of knowledge, achieved equally good results in FT. CT results, even if more than good in both groups, show a significant difference (t-test for unpaired samples) in favor of TC. “Older” people prefer e-learning. Low externality (Loc) and higher levels of openness seem to be driving factors for experimenting e-learning, but personal characteristics do not affect learning results. The study analyzes a small sample of users, but it can be concluded that e-learning might be considered a useful means for knowledge spreading among nurses in alternative, or in addition, to more resource consuming traditional courses.


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