Original Article

The Test - Retest Reliability and Pilot Testing of the "New Technology and Nursing Students' Learning Styles" Questionnaire

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Abstract

Background: The majority of today's nursing students belong to the "Net Generation" or the so – called "Millennials". Born from 1982–2001, millennials have been described as technologically literate. Because of this, many scientists claim that millennials have different preferences and style of learning and thus many challenges have been posed to the educational institutes.

Aim: To estimate the validity and reliability of an assessment tool designed to identify the undergraduate nursing students' digital literacy as well as their learning preferences.

Methodology: A pilot study with 136 participants was conducted in order to estimate the reliability and validity of the survey instrument. The questionnaire was designed after a thorough literature review and taking into account several variables. The variables were separated into two modules. The first deals with the competence on new technology and the second one with the students' learning preferences. Students of three tertiary nursing institutes were invited to participate in an online survey through an email invitation. The assessment of reliability of the survey instrument was performed using test - retest methodology.

Results: Results from the reliability analysis revealed that the scales had good internal consistency. The Cronbach's alpha coefficients ranged from a low of 0.60 to a high of 0.84. Results indicated that seven of ten scales had Cronbach's alphas that exceeded the test value of 0.70. The Intraclass correlation coefficient produced high reliability with the lower score being 0.55 (p=0.01) and the upper 0.98(p<0.001).

Conclusions: The "New Technology and nursing students' Learning Styles" is a literature based, researcher developed instrument that assesses students' learning styles in relation to emerging technologies. Although results from the pilot study revealed that the initial version of the questionnaire collected reliable data, there was some room for improving it.

Key words: millennials, new technologies, reliability, repeatability, validity, Web 2.0