

**Comparison of Basic NI Competencies Using TANIC over Two-year Period
in Graduate Entry Level NI Course**

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Abstract

The TIGER-based Assessment of Nursing Informatics Competencies (TANIC)© instrument represents an operationalized version of competencies first identified by the TIGER Initiative (Technology Informatics Guiding Education Reform, 2017) as knowledge and skills that every practicing nurse should possess to provide care in today's technology-rich healthcare environment. It is a self-assessment tool comprised of competencies grouped into the following categories: basic computer skills, information literacy, and clinical information management. The developers of the tool thought it would be useful to have students enrolled in graduate nursing informatics courses self-assess their knowledge and skills in these areas with the idea that it would help to make them aware of these competencies and that self-assessment would provide information useful to guide self-development as well as guide course development. Subsequent to development, the TANIC was piloted and has since been used in a number of academic and practice settings nationally and internationally. Until January 2019 it was only available as a paper-based self-assessment used by students, as well as a number of organizations who use the tool as a basis for job description requirements, limiting its use for course development and evaluation purposes. Students now have the ability to complete an electronic version of TANIC through a link provided in the course to Qualtrics, a survey development software that allows for statistical analysis. For the purpose of this comparison over time manual-entry of data collected prior to January 2019 was entered into Qualtrics. Authors surmised that there might be an increase in informatics knowledge and skills with the passage of time. Insights and recommendations for future data collection will be presented in detail as well as implications for course changes and other uses. Initial instruments in the course did not collect demographic data.

This conversion of the TANIC to an electronic format follows recommendations from previous researchers and developers related to improving completion of the tool by individuals, as well as meeting the recommendations by ANA for Standard 9 of the scope and standards: *The informatics nurse systematically enhances the quality and effectiveness of nursing and nursing informatics process*. The use of these tools will help further research endeavors, as well as implementation into practice to advance the NI profession.

Questions and points for future consideration:

- What correlation between work experience/position and informatics knowledge and skills for students entering a graduate-level introduction to nursing informatics course exists?
- Should NICA, rather than TANIC, be used for all graduate-level students as expectations for demonstration of informatics competencies continue to grow?
- Migration of NICA to survey software with collection of demographic information could help to identify gaps in advanced informatics competencies to inform course development.
- Informatics is a field that has seen significant growth in nursing; the continued technology expansion brings an increased need of nursing informatics skills possibly expanding beyond even some advanced identified skills.