

Indiana University School of Nursing: PRAC Assessment Project Proposal

Name and rank/title of Project Director(s):

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Project Title: Evaluating the Impact of the TEAS for Admission Criteria

Project Dates: January 01, 2016 – December 30, 2016

Project Checklist

Statement of support: Dr. Susan Hendricks, Associate Dean for Undergraduate Programs will submit a letter of support for this project.

Simple budget: See narrative on page 6.

IRB approval: Ongoing IRB approval has been obtained to evaluate for pre-admission and program outcome data. Protocol# 1206008854A001

Abstract

When shadowing requirements and admission interviews failed to help the traditional baccalaureate nursing program achieve their diversity goals, they were discontinued and replaced with criteria that included the Test of Essential Academic Skills (TEAS). This change has yet to be evaluated, and some question if the TEAS disadvantage minority and lower income students. The purpose of this project is to assess how the TEAS impacts program diversity, relates to student learning, and predicts program outcomes. Data from admission applications, Kaplan tests, NCLEX reports, and retention reports will be analyzed. Findings will be used to inform decision making about admission criteria.

Purpose of Project

The Indiana University strategic plan includes achieving diversity of the undergraduate student population compared to the state and/or region (<https://strategicplan.iu.edu/doc/plan.pdf>). Aligning with the strategic plan, the School of Nursing (IUSON) strives to improve the diversity of their traditional baccalaureate (BSN) program for at least three important reasons:

1. Diversity in the classroom improves the student learning experience and enhances the cultural awareness of the profession (Bednarz, Schim, & Doorenbos, 2010).
2. Diversifying the nursing student population leads to a more diversified workforce which ultimately helps decrease racial and ethnic health disparities (Institute of Medicine[IOM], 2011; Sullivan Commission, 2014)
3. Increasing the number of undergraduate students from minority backgrounds helps increase the pipeline for more diverse nursing faculty in years to come (National Advisory Council on Nurse Education and Practice, 2013).

In 2014 there were 20, 798 undergraduate students at IUPUI of which 9,243 were males, 11,555 were female and 5128 declared a minority ethnicity

(<http://reports.iupui.edu/render.aspx/INSTITUTIONAL%20DATA/HCBYDEMO/IUPUI>), but the traditional BSN program continues to admit a disproportional number of white, female students. Part of the problem with achieving a more diverse nursing student population is thought to lie in the competitive admission process. Resources limit the number of students that can be accepted into the BSN program. To maintain accreditation, the IUSON has had a vested interest in selecting the students who will most likely graduate and pass the National Council Licensure Examination (NCLEX) on the first attempt (CCNE, 2013). Therefore, methods to select the most qualified candidates have heavily relied on academic indicators, such as GPA, but those criteria often have the unintended consequence of excluding candidates with other desired qualities and disadvantaging many minority applicants (Condon et al., 2013; McNelis et al., 2010)

In an attempt to improve diversity, the IUSON utilized admission criteria between 2007 and 2011 which included a shadowing requirement and an interview process. However those criteria proved difficult to implement and failed to help the school achieve their diversity goals (Hendricks, & Krothe, 2014). In 2012, the admission criteria were revised to eliminate shadowing and interviews in favor of a weighted criteria: science GPA (50%), general education GPA (30%), and Test of Essential Academic Skills (TEAS) scores (20%). The TEAS is a multiple-choice assessment of basic academic knowledge in reading, mathematics, science, and English and language. Rationale for selecting the TEAS was that it predicts success in early program Fundamentals courses (ATI; 2011), but other outcomes are unclear (Schmidt, & MacWilliams, 2011). IUSON advisors have expressed concern that the \$110 cost of the TEAS adds another barrier to entry to the BSN program for low income students especially when considering more affluent students can afford study aids and have more ability to repeat the exam to raise scores. Student support personnel have expressed concerns that the exam may be inherently biased.

The purpose of this project is to assess the impact of using the TEAS as part of the admission

criteria for the traditional BSN program. The specific aims of this project are:

1. To determine how TEAS test scores differ between applicants who are admitted to the nursing program and those who are not admitted.
2. To determine if there are significant differences in applicants' TEAS scores and GPAs based on, gender, race, or ethnicity
3. To determine if higher TEAS scores are associated with higher measures of student achievement and learning in terms of GPA and NCLEX predictor exam scores.
4. To determine if TEAS scores predict the program outcomes of retention, on time completion, and NCLEX performance.

Intended Outcomes of the Project

The intended outcome of this project is to determine if the current admission has significant racial, ethnic, or gender bias, and to gather sufficient data to support continued use or discontinuation of the TEAS as part of the BSN program's admission criteria.

Assessment Methods

This project will exam data from pre-existing sources of information routinely obtained by the IUSON. Demographic data and TEAS scores will come from admission applications. NCLEX predictor scores are obtained from the Kaplan and ATI databases. GPA at program completion, retention and graduation data, and NCLEX pass rates are collected by the Office of Evaluation.

Data Analysis

Analysis of variance and paired T-test will be used to look at differences in TEAS tests, science GPA, and general education GPA based on gender, race, and ethnicity. Bivariate correlations will be used to determine the relationships between TEAS and NCLEX predictor scores and final GPA. Odds ratio will be used to examine the relationship between TEAS proficiency levels (developmental, basic,

proficient, advanced, and exemplary) and retention, on time graduation, and NCLEX pass rates. If indicated, a regression analysis may be done to estimate strength among the project variables

Evaluation and Dissemination of Results

A final report on the progress and outcomes of this project will be disseminated to the PRAC Committee, the BSN curriculum and evaluations committees, and the IUSON administrative leadership group (ALG) for final evaluation of the significance of the finding. Manuscripts about the IUSON's journey to change admission criteria have twice been published in peer reviewed journals (McNelis et al., 2010; Hendricks. and Krothe; 2014). It is anticipated that the findings of this project will also be widely disseminated through conference presentations and publications.

Intended Use of Findings

Evaluating processes, including those related to admission, is part of a comprehensive program evaluation plan. As part of continual program improvement, the IUSON continues to seek admission criteria that are both predictive of program success and inclusive. Significant differences in TEAS scores based on gender, race, or ethnicity or finding that the scores are not associated with measures of success would raise concerns that further admission policy revisions are needed.

Budget Narrative

The funding for this project will be used to support a graduate student worker to assist the project director with project preparation and data entry, to purchase a SPSS one year license, and to pay conference registration/travel for the project director to disseminate the results at a professional conference such as the NLN.

Graduate Student Worker (100 hrs x \$15/hrs.)	\$ 1,500.00
SPSS	\$50.00
Registration to present at professional conference/NLN	750.00
Total Budget	\$ 2,300.00

References

- Assessment Technologies Institute (2011). Research brief: Is the TEAS V a predictor of early nursing school success? Retrieved from <https://www.atitesting.com/Solutions/pre-program/teas-discover.aspx>
- Bednarz, H., Schim, S., & Doorenbos, A. (2010). Cultural diversity in nursing education: Perils, pitfalls, and pearls. *The Journal of nursing education*, 49(5), 253.
- CCNE (2013). Standard for accreditation of baccalaureate and graduate program, Retrieved from <http://www.aacn.nche.edu/ccne-accreditation/Standards-Amended-2013.pdf>
- Condon, V. M., Morgan, C. J., Miller, E. W., Mamier, I., Zimmerman, G. J., & Mazhar, W. (2013). A program to enhance recruitment and retention of disadvantaged and ethnically diverse baccalaureate nursing students. *Journal of Transcultural Nursing*, 1043659613493437.
- Hendricks, S. M., & Krothe, J. S. (2014). Outcomes and lessons learned regarding the use of interviewing for baccalaureate nursing school admission. *Journal of Professional Nursing*, 30(5), 392-398.
- Institute of Medicine, IOM Report (2011). Nurse leaders, IOM report call for push to increase diversity in nursing. Robert Wood Johnson Foundation. Retrieved from <http://.rwjf.org/humancapital/product.jsp?id=71931>
- McNelis, A. M., Wellman, D. S., Krothe, J. S., Hrisomalos, D. D., McElveen, J. L., & South, R. (2010). Revision and evaluation of the Indiana University School of Nursing baccalaureate admission process. *Journal of Professional Nursing*, 26(3), 188-195.
- National Advisory Council on Nurse Education and Practice (2013). Achieving health equity through nursing workforce diversity. Retrieved from <http://www.hrsa.gov/advisorycommittees/bhpradvisory/nacnep/Reports/eleventhreport.pdf>

Sullivan Commission on Diversity in the Healthcare Workforce (2014). Missing persons:

Minorities in the health professions. Retrieved from

<http://www.aacn.nche.edu/media-relations/SullivanReport.pdf>

Schmidt, B., & MacWilliams, B. (2011). Admission criteria for undergraduate nursing programs: A systematic review. *Nurse Educator*, 36(4), 171-174.