Taking the **TEASE** out of the **TEAS:** How do Exam Results Correlate with Student Success in a Second Degree Accelerated BSN Program

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STATEMENT OF THE PROBLEM

- Administrators at institutions of higher education engage with identifying applicants from a vast applicant pool to determine which prospective students are likely to be successful in a nursing program

- When reviewing applicants for entrance into a nursing program, a common tool is the TEAS exam

- Since the TEAS exam is widely used for nursing program student selection, administrators and admission committee members can benefit by knowing *how reliable the TEAS exam is with correlation with student success*

PURPOSE OF THE STUDY

The purpose of this quantitative study is

to determine if the TEAS examination correlates with nursing student success

in a second-degree accelerated baccalaureate of nursing program

RESEARCH QUESTIONS

- What is the relationship between TEAS categorical and composite scores and student success?

- TEAS categories:
  - Science
  - Mathematics
  - Reading
  - English and Language Usage
  - Composite Score

SIGNIFICANCE OF THE STUDY

- Nursing schools across the country are attempting to increase their enrollments in response to the nursing shortage that exists in the United States

- Study aims to assist admission committee members with making the best prediction of student success when using the TEAS

- Administrators at higher educational institutions that offer programs in nursing are also likely to benefit from this study

- If results of the study indicate no significant relationship, admission committee members and administrators might choose to put less value, or no value, on the TEAS examination scores of potential students

METHODOLOGY

- Correlational design

- Examined the relationship between multiple variables and student success

- Multiple variables included
  - TEAS examination scores (the 4 separate categories and the composite score)
  - Age at time of enrollment
  - Subject of prior baccalaureate degree earned
  - Gender
  - Degree grade point average for prior baccalaureate degree
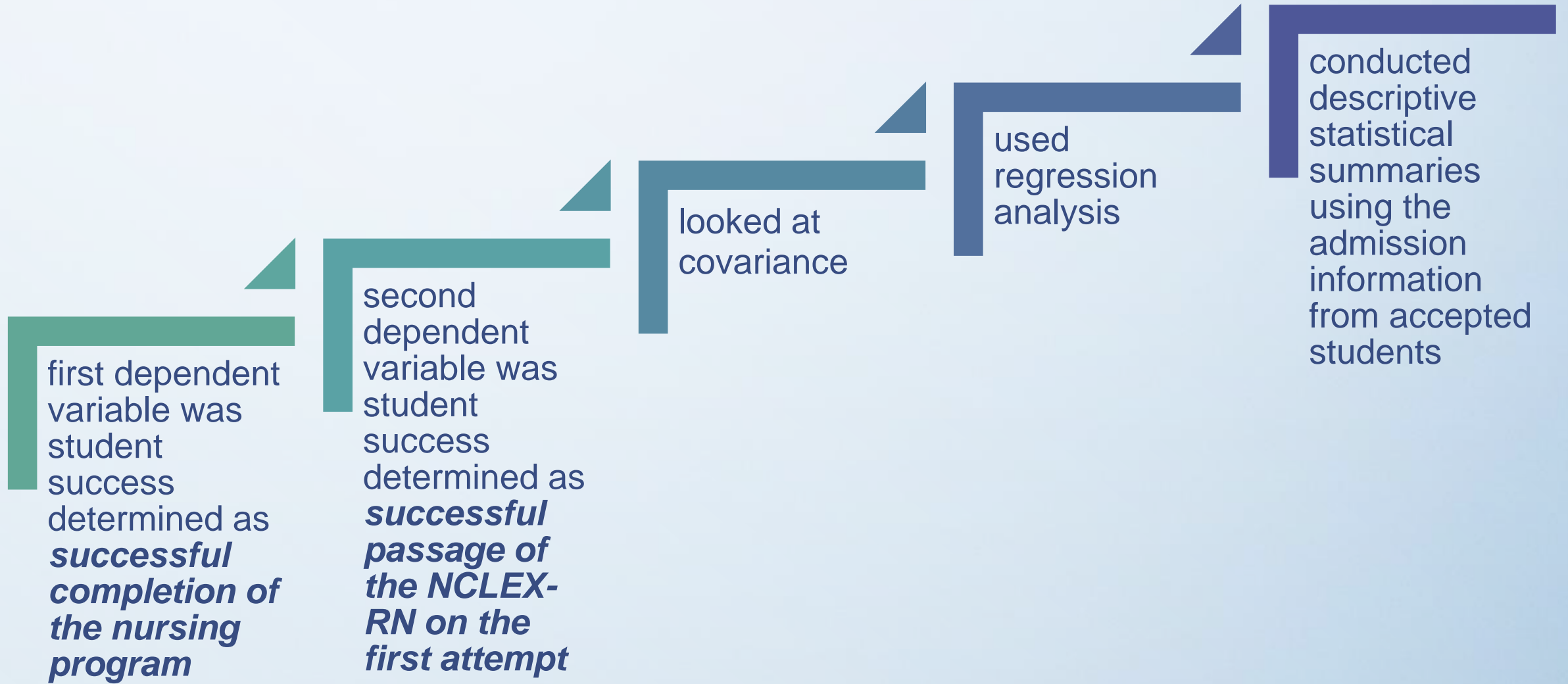 - Sciences grade point average from prior baccalaureate degree

SITE SELECTION AND RATIONALE

- Small, private, nursing college in the United States

- State Board of Nursing approved this program

- CCNE accredited

- Curriculum of the program covers the typical 2 years of nursing core content

- Students must demonstrate learning, applying, and reviewing the material at a rapid pace

SAMPLE

- Students admitted to the institution who attended at least two full weeks of instruction

- Students beginning with those that started in July of 2010 (cohort 4) and ending with the group of students who started in July of 2014 (cohort 12)

- Population size of 393 students

DATA ANALYSIS

first dependent variable was student success determined as **successful completion of the nursing program**

second dependent variable was student success determined as **successful passage of the NCLEX-RN on the first attempt**

looked at covariance

used regression analysis

conducted descriptive statistical summaries using the admission information from accepted students

DEMOGRAPHICS

	n	Percent
Gender		
Male	67	17.05
Female	326	82.95
Bachelor Major		
Business	38	9.72
Health/Education	80	20.46
Liberal Arts	68	17.39
Psychology/Social Science	51	13.04
Science	154	39.39
	Mean	SD
Age	28.5	6.90
Bachelor's GPA	3.10	0.30
Science GPA	3.23	0.38

SUMMARY OF STUDY VARIABLES

	n	Percent
Dependent Variables		
Successful Completion of the Nursing Program		
No	21	5.34
Yes	372	94.66
Successful Passage of the NCLEX-RN on 1st Attempt		
No	35	9.41
Yes	337	90.59
	Mean	SD
Independent Variables		
TEAS Science	74.35	10.33
TEAS Mathematics	83.88	11.00
TEAS English	77.85	9.97
TEAS Reading	84.58	8.79
TEAS Composite	80.04	6.37

SUMMARY

Dependent Variable	Independent Variable	Reject Null?	Model Odds Ratio*
Completion of Program	TEAS Science	Yes	1.08 (1.02 – 1.14)
Completion of Program	TEAS Mathematics	Yes	1.05 (1.01 – 1.09)
Completion of Program	TEAS English	No	1.04 (0.99 – 1.08)
Completion of Program	TEAS Reading	Yes	1.05 (1.00 – 1.10)
Completion of Program	TEAS Composite	Yes	1.14 (1.04 – 1.24)
Completion of NCLEX-RN	TEAS Science	Yes	1.05 (1.01 – 1.09)
Completion of NCLEX-RN	TEAS Mathematics	No	0.99 (0.96 – 1.03)
Completion of NCLEX-RN	TEAS English	No	1.03 (0.99 – 1.07)
Completion of NCLEX-RN	TEAS Reading	No	1.01 (0.97 – 1.05)
Completion of NCLEX-RN	TEAS Composite	Yes	1.07 (1.01 – 1.14)

*Model Odds Ratio and 95% Confidence Interval

What does this all mean?

Completing the Program:

- TEAS Science Score = for every one unit increase in score, the odds of completing the program increase by 8%

- TEAS Math Score = for every one unit increase in score, the odds of completing the program increase by 5%

- TEAS English = no significant relationship

- TEAS Reading = for every one unit increase in score, the odds of completing the program increase by 5%

- TEAS Composite = for every one unit increase in score, the odds of completing the program increase by 14%

What does this all mean?

Passing the NCLEX-RN on the 1st attempt:

- TEAS Science Score = for every one unit increase in score, the odds of passing the NCLEX-RN increase by 5%

- TEAS Math Score = no significant relationship

- TEAS English = no significant relationship

- TEAS Reading = no significant relationship

- TEAS Composite = for every one unit increase in score, the odds of passing the NCLEX-RN increase by 7%

Other Findings

- Females are more likely to complete the nursing program and are more likely to pass the NCLEX-RN

- Candidates with higher science grade point averages were more likely to complete the nursing program

- Bachelor's Degree major did not correlate with success

- Younger candidates are more likely to complete the nursing program

IMPLICATION OF THE FINDINGS

- The TEAS composite score and science score, can be an effective measure of the potential for passing the NCLEX-RN on the first attempt.

- The TEAS composite, science, mathematics, and reading scores can be an effective measure of the potential for completing the nursing program.

- Males, older students, and those with a lower science GPA are less likely to complete the nursing program.
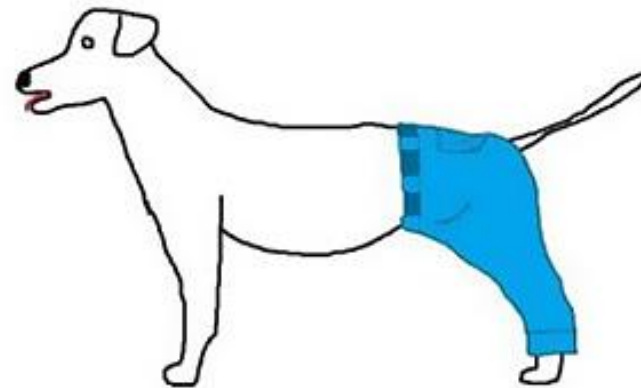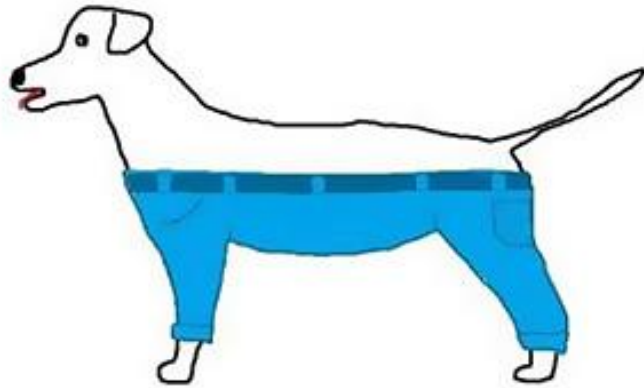
LIMITATIONS OF THE STUDY

- Study was limited to one private institution

- Only second degree accelerated BSN students were included in the study

RECOMMENDATIONS FOR FUTURE RESEARCH

- Replicate the study with other accelerated BSN programs

- Research graduates after 3-5 years to determine "success" in the nursing profession

- Research why men are less likely to graduate from a second degree accelerated BSN program

- Research why older students are less likely to graduate from a second degree accelerated BSN program

QUESTIONS AND COMMENTS

If a dog wore pants would he wear them like this or like this?

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