# Utilizing the ATI TEAS Assessment as a Predictor of Nursing Program and NCLEX Success

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## Background

There is an increasing shortage in the number of available nurses and nursing faculty in the United States. In 2018, 75,000 possible nursing students were turned down due to a lack of seats within nursing programs.

Wor-Wic Community College is a rural community college that admits 48 nursing students every fall and 32 nursing students every spring. Every semester, they are forced to turn away many prospective students. In fall of 2017, 107 students were turned down. Of the 48 students that were admitted, only 25 were able to pass all courses and the NCLEX-RN exam on the first attempt. According to AACN, in 2019, the average ADN program NCLEX-RN pass rate was 90.55%. The Wor-Wic Community College pass rate that year was 81.54%.

## Objectives

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1. Develop a plan for utilizing the ATI TEAS assessment to assist in identifying students who are likely to be successful at Wor-Wic Community College Nursing Program.

2. Utilize the ATI TEAS assessment scores to identify nursing students who are likely to pass the NCLEX-RN on the first attempt and those who may be at risk of failure on the first attempt.

## Development

All students admitted into the Wor-Wic Community College Nursing Program were administered the TEAS Assessment exam since fall of 2014.

An excel spreadsheet was created tracking each student's success through the program and through their first NCLEX-RN examination attempt. Once a student failed a course, they were counted as unsuccessful for the sake of this study. However, these students did have another attempt to complete the program.

Once all students were tracked from fall of 2014 until fall of 2017, the information was transferred into a SPSS database. A correlation analysis was done with the information using this quantitative information.
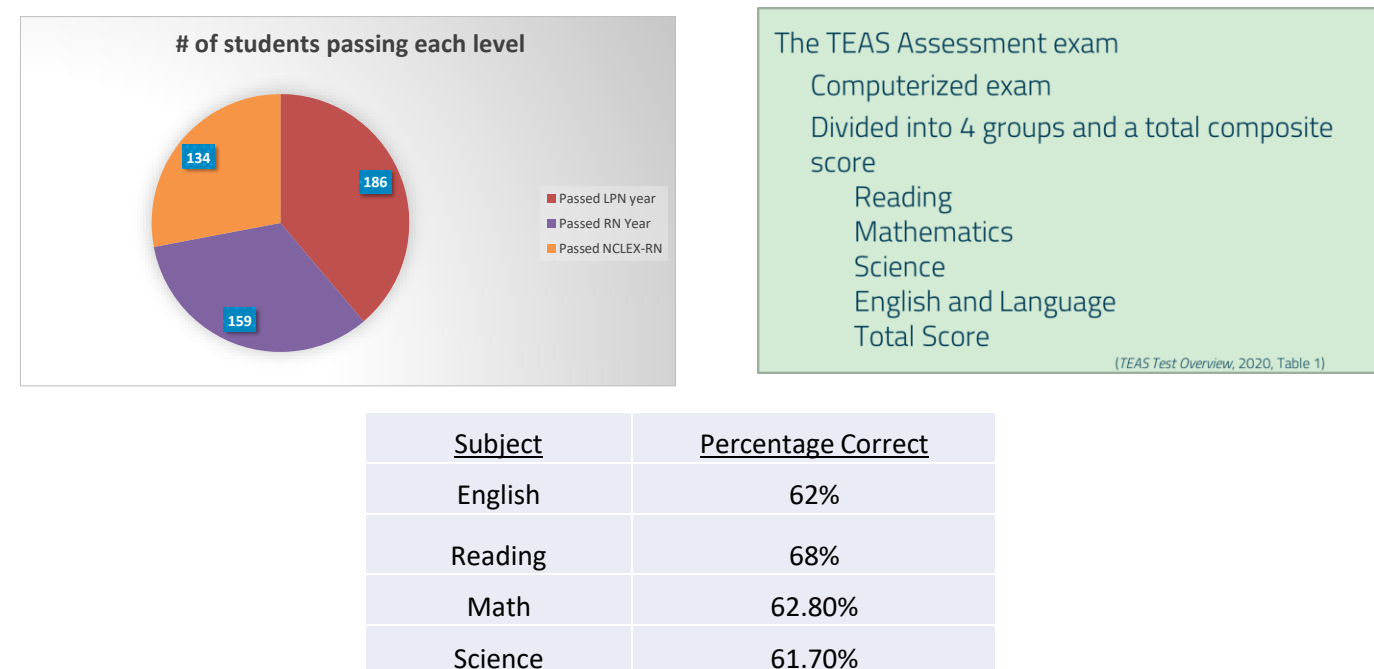
## Methods

All first-time admitted nursing students at Wor-Wic Community College between the fall 2014 and the fall 2017 semesters were included in this study. Students were tracked through their succession within the Wor-Wic Community College Nursing Program. This included 266 beginning nursing students.

The data gathered included student admission TEAS exam scores, students' progression through the nursing program, and the results of their first NCLEX-RN exam attempt.

This information was then run through SPSS to find the probability of the students' TEAS exam score predicting their ability to pass each course on the first attempt and pass the NCLEX exam on the first attempt.

## Figures



# of students passing each level

- Passed LPN year: 134
- Passed RN Year: 186
- Passed NCLEX-RN: 159

The TEAS Assessment exam
   Computerized exam
   Divided into 4 groups and a total composite score
      Reading
      Mathematics
      Science
      English and Language
      Total Score

*(TEAS Test Overview, 2020, Table 1)*

| Subject | Percentage Correct |
|---|---|
| English | 62% |
| Reading | 68% |
| Math | 62.80% |
| Science | 61.70% |

## Results

266 students were included in this study. Only 132 students passed all courses and the NCLEX-RN exam on the first attempt. Our model showed that the TEAS Assessment exam is 65.8% correct in predicting successful students for the Wor-Wic Community College Nursing Program (69.4% correct in predicting successful students and 62.1% successful in predicting unsuccessful students). Overall, the TEAS exam is better at predicting successful students than unsuccessful students. It was also noted that the Reading score was 68% successful in predicting a successful student. More research should be conducted into why this number is higher than the composite score.

The cut off score for the TEAS Assessment exam was 63%. Students who scored a 63% or better have a 50% chance of being a successful Wor-Wic Community College nursing student. The Odds Ratio based on statistical analysis was 1.107, indicating that as student's scores increased, their probability of success increased as well.

The TEAS Assessment exam is a viable admission criterion for Wor-Wic Community College Nursing Program.

## Conclusions

Overall, the TEAS Assessment Exam proved to be better at predicting successful students than it was at predicting unsuccessful students. This shows that although it is a good admission criterion, it should not be used alone in the admissionprocess.

Further research should be conducted into why the Reading sub score was a better predictor of student success than othersubjects and the total TEAS score.

For retention purposes, more research should be done on whether the TEAS Assessment exam predicts studentsuccess in other nursing programs.

## Bibliography

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## Notes

All necessary permissions were obtained prior to the beginning of this study. Participants information was protected.