

# Correlating Graduate Record Exam Scores with National Certification Exam First-Attempt Scores

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## Problem

Do GRE scores predict the NBCRNA NCE scores of nurse anesthesia graduates?

## Methods

- Quantitative, retrospective correlational design to examine total GRE and first-attempt total NCE scores
- Multiple regression analysis to examine GRE subcategories and first-attempt total NCE scores
- Exclusion criteria: students who held previous graduate degrees and did not submit GRE scores, students admitted prior to 2015, and graduates' repeat attempt NCE scores
- Final sample size- 97
- Scores were randomized, paired, de-identified
- Analysis completed via IBM SPSS software version 21

## Illustration

Table 1  
Total GRE & Total NCE Score Correlations

|           |                     | NCE Total | GRE Total |
|-----------|---------------------|-----------|-----------|
| NCE Total | Pearson Correlation | 1         | .224*     |
|           | Sig. (2-tailed)     |           | .030      |
|           | N                   | 94        | 94        |
| GRE Total | Pearson Correlation | .224*     | 1         |
|           | Sig. (2-tailed)     | .030      |           |
|           | N                   | 94        | 94        |

\*Correlation is significant at the 0.05 level (2-tailed)

## Discussion & Implications

- Use the total GRE score in conjunction with other admission criteria.
- Consider the GRE quantitative sub-score more than the qualitative sub-score.
- Expand this study to include additional nurse anesthesia programs.

## More Results

### Verbal Sub-Score GRE and First-Attempt NCE Total

- No significant correlation

### Quantitative Sub-Score GRE and First-Attempt NCE Total

- Statistically significant correlation
- Predictive ability estimated at 6.97%

## Conclusions

Strong applicants offer many benefits to both the university and profession by passing the NCE on the first attempt. GRE utilized with other admission criteria facilitates admission of strong applicants.

## Literature Review

- GRE created by ETS to measure skills required to be successful in graduate school
- Literature of the GRE's impact on nurse anesthesia programs was lacking
- Conflicting literature regarding the GRE's impact on other graduate healthcare programs
- 52 of the 122 (42.6%) nurse anesthesia programs required a GRE score for admission

## Results

### Total GRE compared to First-Attempt NCE Total

- Significant positive correlation
- Predictive ability estimated at 5.02%

## Illustration

Table 2  
Verbal GRE & Total NCE Score Correlations

| Control Variables |                         | NCE Total | GRE Verb |
|-------------------|-------------------------|-----------|----------|
| NCE Total         | Correlation             | 1.000     | -.008    |
|                   | Significance (2-tailed) |           | .939     |
|                   | df                      | 0         | 91       |
| GRE Quant         | Correlation             | -.008     | 1.000    |
|                   | Significance (2-tailed) | .939      |          |
|                   | df                      | 91        | 0        |

Table 3  
Quantitative GRE & Total NCE Score Correlations

| Control Variables |                         | NCE Total | GRE Quant |
|-------------------|-------------------------|-----------|-----------|
| NCE Total         | Correlation             | 1.000     | .264      |
|                   | Significance (2-tailed) |           | .010      |
|                   | df                      | 0         | 91        |
| GRE Verb          | Correlation             | .264      | 1.000     |
|                   | Significance (2-tailed) | .010      |           |
|                   | df                      | 91        | 0         |

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