Demographics in Rural School Districts & K-12 Online Education

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Introduction

✧ Rural School Districts
  ✧ Demographics
  ✧ Limited Resources
  ✧ Possible Alternatives to Educate Students

✧ Online Education
  ✧ Growth and overall benefits
  ✧ Uses in Rural Districts and Success Rates
    ✧ A.C.C.E.S.S. Distance Learning - AL Initiative
    ✧ Demographics in Online K-12 Education
Technology and Distance Education in K-12

Limited Research

Boyles, Brrenson, and Weaver (2008) coincided that research on predictors of online success prior to enrollment is deficient. If specific educational and demographic characteristics could be identified as important predictors of success in an online course, it would be beneficial to school counselors and advisor when enrolling students in online courses.

Moore and Kearsley (2013), only a small amount of data has been analyzed to determine whether various demographics play a role in predicting a student’s success, a letter grade of D (60 average or higher) in online high school courses.

Student Success in Online Distance Learning K-12 Courses & Rural Districts

Demographics as Predictors of Success
“Student Success in Online Distance Learning K-12 Courses with Demographics Variables as Predictors of Success”
Data

- The study consisted of N=987 students enrolled in an online high school course.
- There were no missing variables
- Pre-analysis
  - Mahalanobis Distance
  - Frequency Statistics
- The data was prescreened using the following to make sure all assumptions were met:
  - Multicollinearity (Tolerance and Variance of Inflation)
  - Normality
  - Linearity and Homoscedasticity
- Outliers
  - 16 Outliers were identified with critical values exceeding $\chi^2 = 24.32$
  - 971 cases remaining
Research Questions

Research Questions Examined:

1. Is there a relationship between students’ demographic variables (e.g., gender, ethnicity, free or reduced lunch) and academic success in online high school courses?

2. Is there a relationship between students’ previous computer experience (students previously taking an online course) and academic success in online high school courses?

3. Is there a relationship between student’s current grade point average (GPA) and academic success in online high school courses?

4. Is there a relationship between student’s grade level and academic success in online high school courses?

5. Is there a relationship between students’ attendance (number of days absent for school) and academic success in online high school courses?

6. Which demographic and academic variable(s), if any, produce the best prediction of student success in online high school courses?
Research Findings & Benefits

- Research Question Findings
  - Significant and non-significant variables
  - GPA, gender, grade-level and lunch code were significant in predictive ability (GPA p < .000, gender p < .000, grade level p < .000, and lunch code p < .006). All other variables, ethnicity, previous online course and number of days absent do not contribute significantly.

- Benefits of Findings
  - Rural Districts
  - Online Learning Overall

- Recommendations for Future Research

- Additional Insight
Questions & Roundtable Discussion