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Background

Statistics is one of the most significant sciences included in learners' curriculum from primary school through higher education due to statistics' critical role in many aspects of life that require analysis, numbers, and interpretation of findings (Alizamar et al., 2019). However, much research demonstrates that graduate students are not confident in dealing with statistics, and they perceive statistics as the most anxiety provoking subject in their academic major (Chew & Dillon, 2014; Male & Lumbantoruan, 2021). Some research reported that graduate students in educational science rated their statistics course as the least desirable course in their curriculum program. As a result, students develop anxiety and adverse reactions towards statistics courses, which may be a primary threat to their academic performance (Koh & Zawi, 2014; Macher et al., 2013; Sesé et al. 2015). Statistics anxiety refers to the specific feelings of anxiety students experience when they encounter statistics, for example, gathering, processing and interpreting data (Cruise, et al., 1985; Onwuegbuzie, et al., 1997).

Problem and Purpose

Most students are experiencing anxiety about statistics, which is usually an extensive issue amongst students undertaking social sciences. Students with statistics anxiety exhibit lower academic performance than students who don't experience this anxiety. These students also have a higher chance of dropping out of school or not graduating on time (de Vink, 2017). The purpose of this study is to examine graduate students' levels of statistical anxiety in colleges of educational and social sciences in Saudi Arabia who are enrolled in statistics courses in their academic program. This study also has conceptualized and will empirically test a model intended to analyze the roles of significant factors (attitudes toward statistics, statistical self-efficacy, and previous statistics experience) in predicting statistics anxiety.

Research questions

1. What are the levels of statistics anxiety, attitude towards statistics, and statistics self-efficacy among graduate students in Saudi Arabia?
2. To what extent do attitude toward statistics, statistical self-efficacy, and previous statistics experience explain the statistics anxiety of graduate students in Saudi Arabia?

Methods

Methodology

This study will investigate whether attitudes towards statistics, statistics self-efficacy, and previous statistics experience predict statistics anxiety among graduate students through a quantitative, non-experimental, correlational research design.

Data Analysis

A model-testing design will be adopted to assess a theoretical model which proposed that attitudes toward statistics, statistics self-efficacy, and statistics experience predict graduate students statistics anxiety.

Instruments

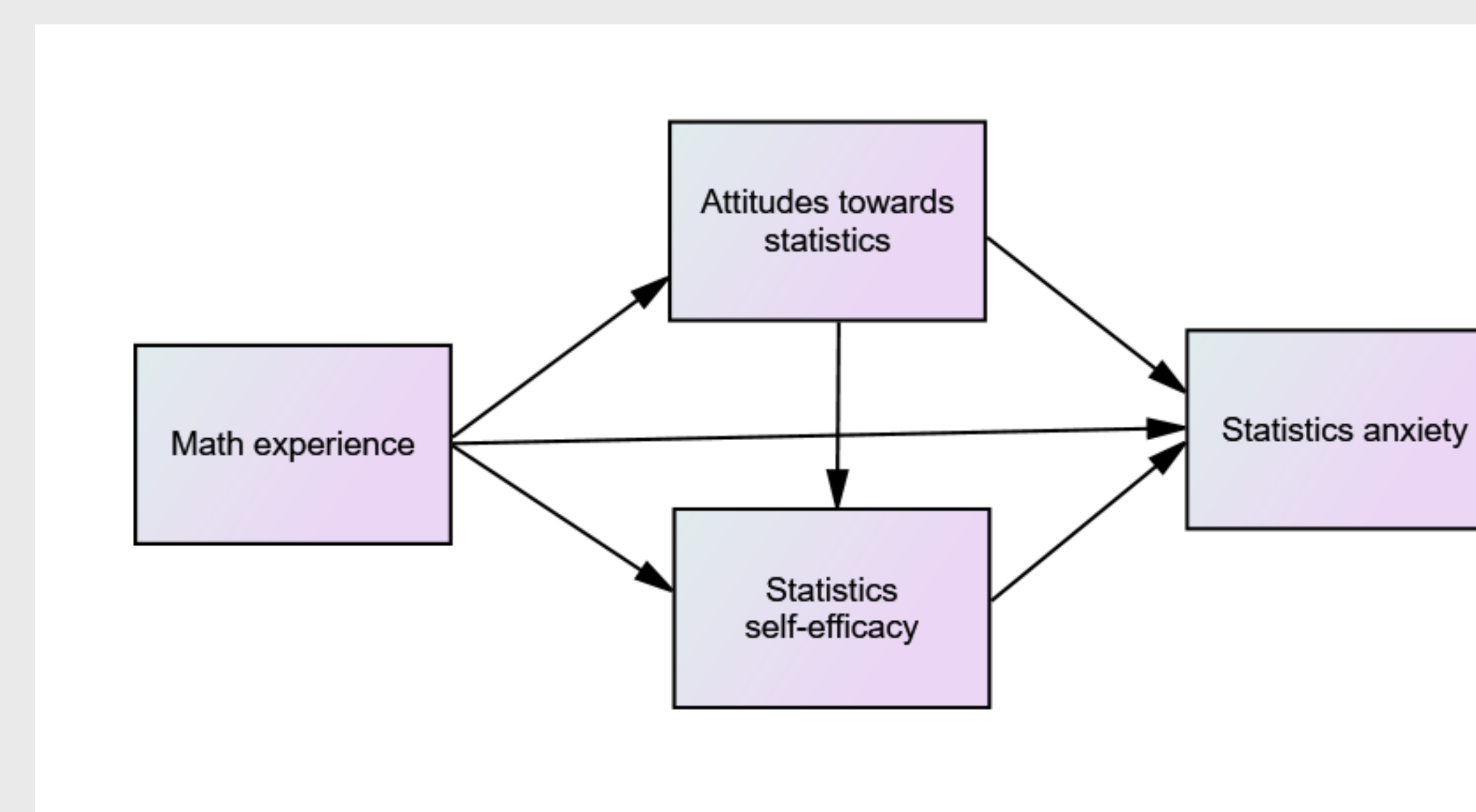
A demographic questionnaire was used to collect information related to participants' personal characteristics. Instruments used to measure the study variables are: the Statistics Anxiety Rating Scale (SAS) (Vigil-Colet, et al., 2008), a Survey of Attitudes Toward Statistics (SATS-28) (Schau, 2003), and the Current Statistics Self-Efficacy Scale (CSSE) (Finny & Schraw, 2003). The instruments were sent to participants by email.

Participants

The sample of this study consisted of 356 (79.8% female, 20.2% male) graduate students of Education and Social Science colleges in Saudi Arabia, who were attending statistics classes in Spring 2022.

Results

Descriptive statistics of the data will be analyzed. Results will indicate the statistics anxiety among graduate students in Saudi Arabia. Results will also show predictors of statistics anxiety through the theoretical model.



Conclusion

This study aims to apply the theories concerning statistics anxiety and students performance to the specific demographic of graduate students and underpin some common factors related to students statistics anxiety in Saudi Arabia. Although previous research in this field successfully identified the significance of several factors to reducing statistics anxiety, the number of studies addressing these factors in graduate students in Saudi Arabia is insufficient.

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