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## Action Research: A Narrative Inquiry Approach to Addressing Student Retention in Undergraduate Science Courses

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# Action Research: A Narrative Inquiry Approach to Addressing Student Retention in Undergraduate Science Courses

Elizabeth A. Golba

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## Problem Statement

- First-time undergraduate student retention rate at this small, private, health care institution retention rate over the past five years remains between 54-74% (Knight College, n.d.).
- An analysis report indicated that 65% of the course failures related to delayed or no graduation occurred in science courses (Knight College, 2019).
- Retention of first-time college students pursuing bachelor's degrees fell to 38% in 2019 (Knight College, 2019).

## Justification

- Successful completion of first-semester science courses is crucial for an on-time entry into the undergraduate health care programs of nursing, respiratory care, and sonography.
- If students cannot pass science courses, this leads to drop-out or a delay of entry into their health care profession.

## Overview of Framework and Methods

- The emphasis is placed on a better understanding of the students' firsthand experiences while enrolled in science courses by employing data gathering methods, such as semi-structured interviews, that provide insight into a phenomenon the participants have experienced (Tuli, 2011).
- A narrative inquiry approach will be used to conduct this action research study.
  - A narrative inquiry tells the story through the perspectives and voices of the participants (Merriam & Grenier, 2019).
  - Wang and Geale (2015) stated that by using a narrative inquiry approach to action research, researchers can access thick, rich, layers of information that deliver an in-depth understanding of the participant's viewpoint.

## Research Questions

- How can the academic success of undergraduate students in science courses at a small, private, health care institution be improved?
  - Sub Question 1: Is there a difference in academic success in science courses between students who use support systems and students who do not use support systems?
  - Sub Question 2: Does a positive academic advising experience improve student retention in science courses?



## Mini-Study (Pilot Study)

- The purpose of the qualitative, mini-study was to identify the factors affecting undergraduate students' academic success in science courses.
- All three students interviewed were first-generation college students and expressed a lack of college preparation regarding the importance of attending classes, time-management, and study skills strategies.
- Interviewees shared the following comments:

Really a huge part of it was just showing up to class .

I feel like coming out of high school and not realizing how hard college is and how much time you must put into it.



It took a while to learn how to study, but working with academic support, like time management.

## Theoretical Framework

- An ethics of care is essential in a college environment where students are underprepared or academically inexperienced, leading to low retention (Barrow, 2015).
- A fundamental approach of ethical caring is an understanding of the subjective experience of first-generation college students, transfer students, and historically underrepresented racial minority students (Noddings, 1986).
- Bozalek et al. (2014) further defined the ethics of care as attentive and responsible in caring. Forming caring relations with students can lead to better student success (Barrow, 2015).



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## Literature Review

Four themes identified

- Student retention issues
  - first generation college students
  - transfer students
  - historically underrepresented racial minority students
  - psychological and emotional factors
  - faculty support
- Academic advising
- Identifying students at-risk
- Support systems



## Action Research Design

- This action research study will uncover areas in need of improvement in the academic success of undergraduate students enrolled in science courses that previous researchers were unable to explore.

## Positioning the Study

- Participatory action research (PAR)
- I will use a narrative inquiry approach with a purposeful sampling of students who have been unsuccessful in passing science courses at Knight College (Creswell & Guetterman, 2019).
- A key to the narrative inquiry action research design is the use of stories as data, and more precisely, first-person descriptions of their events told in story form (Merriam & Grenier, 2019).

## References

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