Analytic Approach to Determining Causes of Graduate Student Attrition

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Analytic Approach to Determining Causes of Graduate Student Attrition

Cheryl Bagley Thompson PhD, RN
University of Nebraska Medical Center

Courses Taken First Semester

- Smith, J
  - Program: WADM
  - Action: Admit
  - Year: 2016
  - Subject: NRSG 600
  - Grade: A
  - Catalog: August 16
  - Action Year: May 17

- Melon, C
  - Program: WADM
  - Action: Admit
  - Year: 2016
  - Subject: NRSG 600
  - Grade: A
  - Catalog: August 16
  - Action Year: May 17

- Detmer, S
  - Program: WADM
  - Action: Drop
  - Year: 2018
  - Subject: NRSG 601
  - Grade: A
  - Catalog: August 17
  - Drop: May 18

- Atkins, T
  - Program: WADM
  - Action: Admit
  - Year: 2018
  - Subject: NRSG 601
  - Grade: A
  - Catalog: August 17
  - Admit: May 18

Specific Rigorous Courses

- Branch, M (Admit: 2011, Course: NRSG 600, Grade: A)
- Branch, M (Admit: 2011, Course: NRSG 602, Grade: A)
- Detmer, S (Admit: 2015, Course: NRSG 605, Grade: A)
- Elliot, M (Admit: 2015, Course: NRSG 605, Grade: A)
- Elliot, M (Admit: 2015, Course: NRSG 606, Grade: A)
- Elliot, M (Admit: 2015, Course: NRSG 607, Grade: A)

Voluntary Withdrawal vs Poor Grades

Students who withdrew from program

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Total Course Enrollments = 2325
Non-passing grades = 4.5%

Implications for Practice

1) Need to understand data
2) Use hypotheses to guide data analysis
3) It's an iterative process
4) In this fabricated analysis student course performance is not the probable cause of attrition and recommend advising and student support

Abstract/Purpose

Student data is collected for a variety of uses from application to graduation. Data is most often collected and stored in a fashion that supports single student data retrieval or mass processing of data, for uses such as preparation for graduation. Retrieving data for use in analytic reports is often more difficult. Student services staff may have difficulty explaining to technology staff the nuances required to meet their data needs.

One data use example is identifying circumstances leading to graduate student attrition. Data can be helpful in differentiating between course performance and personal issues as the cause of student attrition. The purpose of this poster is to provide analytic approaches to evaluate potential causes of graduate student attrition.

This poster will walk the viewer through a step by step process for obtaining data needed to answer student attrition questions. Hypotheses explored with these analyses included the following:

- Specific courses taken during the first semester were too challenging
- Specific courses regardless of when taken are more rigorous
- Voluntary withdrawal versus poor grades (personal circumstances)

General Approach/Considerations

1) Propose hypotheses
2) Identify data needed
3) Expect multi-step analysis
4) May need to add data later in analysis
5) Document what you do

Hypotheses

1) Courses taken first semester
2) Specific difficult courses
3) Poor grades versus voluntary withdrawal (personal circumstances)

First Steps

1) Establish permission to access data
2) Identify needed data
   a) Student name/identifiers
   b) Program actions
   c) Action dates
   d) Courses taken, semester, semester in program, grade
3) Query for all students in relevant program(s)
4) Identify unsuccessful students
   a) Know meaning of codes for successful and unsuccessful

All data are fabricated.