THE IMPACT OF LEARNING PREFERENCES ON RETENTION OF ADULT STUDENTS IN AN ONLINE DEGREE PROGRAM

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Statement of the Problem

Because online course completion rates are lower than completion rates in the traditional classroom (Capra, 2011) and incompatibility with learning style is one of the major factors leading to withdrawal from online courses (Cole, Shelley, & Swartz, 2014) consideration of the learning style preference of students in an online degree program is important. The mismatch between learning style preference and course design and delivery could de-motivate a student to the point of withdrawal, leading to the consequences of low retention for both the student and the institution.

Purpose of the Study

The purpose of the current study was to investigate the impact of student learning preferences - based on a multiple intelligences model - on retention of adult students in a fully online undergraduate degree program at a Midwestern university in order to recommend enhancements to course design and academic advising strategies.

Learning Styles Research

- Lack of agreement on the definition of learning style and if there is an optimal learning style for the online environment (Kauffman, 2015).
- After multiple studies there is no agreement on, or approval of, one theory (Bechter & Esichaikul, 2008, Stokes, 2000).
- Instruction tailored toward a student's learning style may produce better task outcomes (Cegielski, Hazen, & Rainer, 2011)

Retention

- Little research exploring connection between learning preference and retention
- Much of the literature related to retention in online courses focused on attrition is just one course.

Student Satisfaction

- Compatibility with learning style contributes to higher satisfaction in online courses (Cole, et al., 2014)

- Students with certain preferences experienced higher satisfaction with online courses (Eom, Wen, & Ashill, 2006)

Significance of the Study

Much of the literature related to retention in online courses focused on the attrition rate in just one online course. Therefore, as a result of this study, the body of knowledge about longer-term retention of online students was expanded. In addition, measuring the relationship of learning preferences with major area of study, student satisfaction, and retention, will provide a framework for recruiting and advising online students, as well as for making enhancements for online course design.

Quantitative

Archival data

Survey data

Convenience sample

Correlational

Research Design

SmarterMeasure Assessment

- Required assignment
- Licensed through SmarterServices, LLC
- Construct validity indicates goodness of fit for online learning as statistically significant at the .01 level (SmarterServices, LLC, n.d.a).
- Reported Cronbach Alpha reliability of .81 for the learning styles subscale (SmarterServices, LLC, n.d.b.)

Student Satisfaction Survey

- Modified Penn State survey
- Delivered via email
- Available for two weeks
- Two reminders
- Six-point Likert-type scale
- Coefficient alpha of .95 = high internal consistency

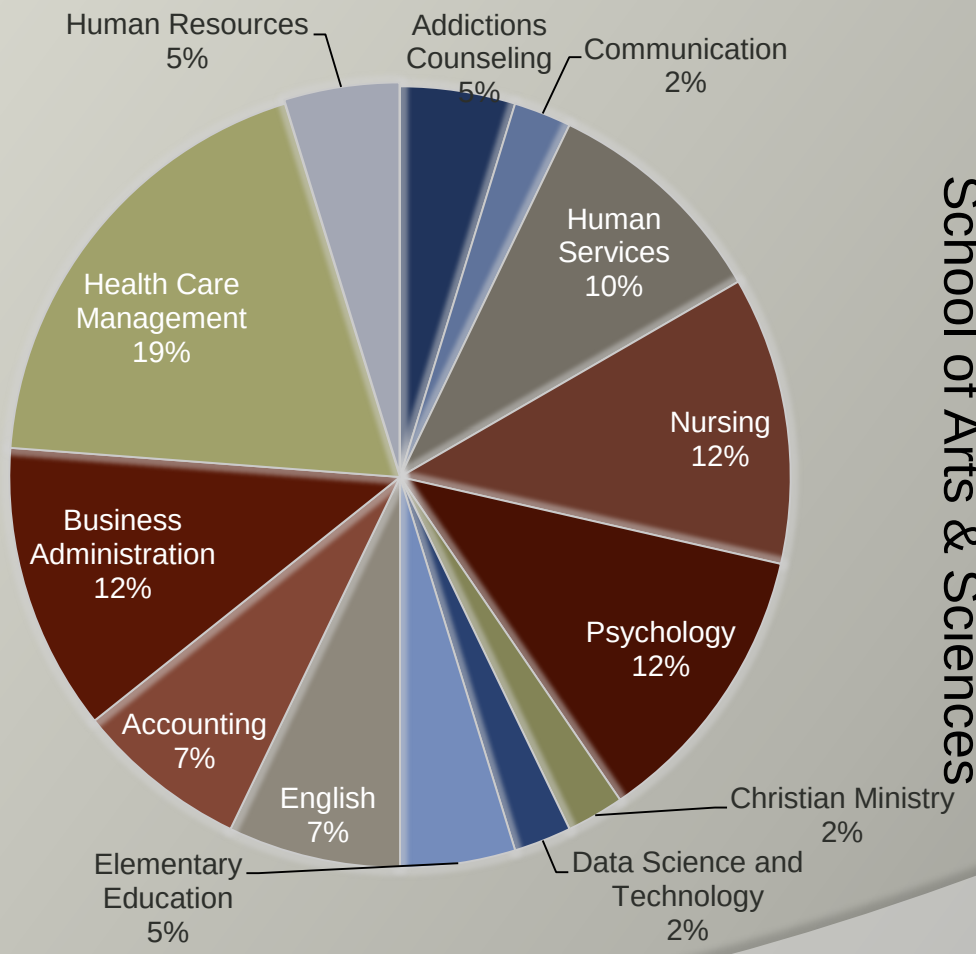
Participants

- 273 students
- 49% Caucasian
- 75% female
- 64% ages 24-31
- 90% transferred college credits
- Mean GPA 2.48
- 42 completed surveys

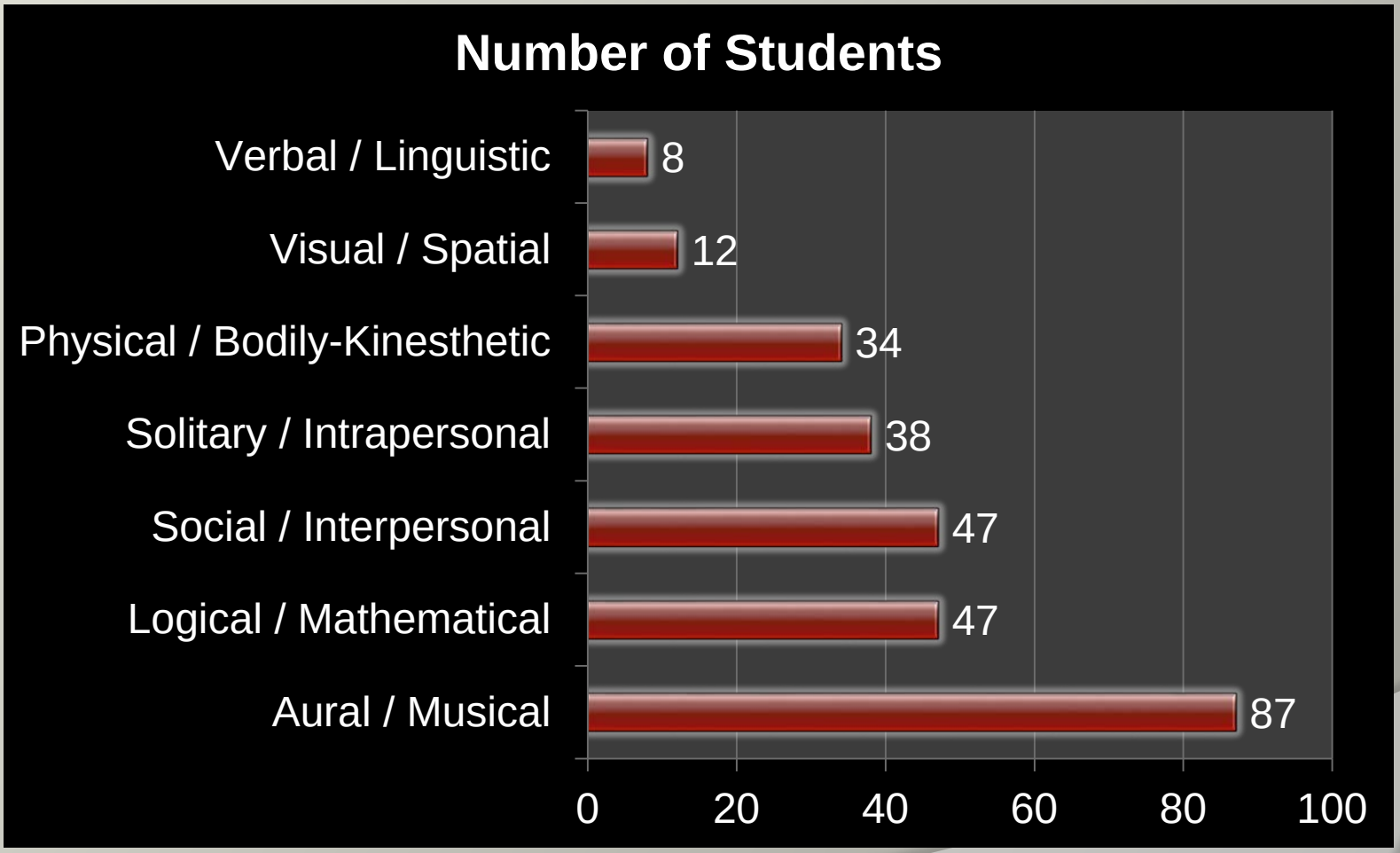
Survey Responses by Major

School of Business

School of Arts & Sciences



Distribution of Students by Learning Preference



RQ1: What is the relationship, if any, between learning preference and major for students taking courses in an online undergraduate degree program?

Data:

- Learning preference profile obtained from SmarterMeasure database
- Major program of study obtained from University database

Analysis:

- Phi-coefficient correlation of nominal data: primary learning preference and major

Findings:

- No statistically significant correlation between learning preference and major, r (42) =.172, p = .275.

RQ2: What is the relationship, if any, between learning preference and retention in an online undergraduate degree program?

Data:

- Learning preference profile obtained from SmarterMeasure database
- Enrollment data for fifth term from University database

Analysis:

- Phi-coefficient correlation of nominal data: learning preference and enrollment status

Findings:

- No statistically significant correlation between learning preference and retention, r (265) =.190, p = .141

RQ3: What is the relationship, if any, between learning preference and student satisfaction with learning in an online undergraduate degree program?

Data:

- Learning preference profile obtained from SmarterMeasure database
- Student satisfaction survey composite score
- Range of possible satisfaction scores: 13-65

Analysis:

- Point-biserial correlation of nominal data (learning preference) and Interval data (composite satisfaction score)

Findings:

- Mean satisfaction score: 54.30
- No statistically significant correlation between learning preference and student satisfaction, r (42) =.172, p = .275.

RQ4: What differences exist in student satisfaction, major, and retention based on learning preference?

Test 1: Student Satisfaction and Retention

Status	N	Mean	Standard Deviation
Retained	24	54.8750	8.58367
Not Retained	13	52.1538	14.65063

Findings:

Statistically significant relationship between student satisfaction and retention, t (35) = .715, p = .024

RQ4: What differences exist in student satisfaction, major, and retention based on learning preference?

Test 2: Student Satisfaction by School Governing Major

Governing School	N	Mean	Standard Deviation
Arts & Sciences	22	55.8182	9.07449
Business	15	51.1333	13.11415

Findings:

No statistically significant relationship between student satisfaction and governing School, t (35) = 1.287, p = .133

Conclusions

- Learning preferences are dynamic and students can adapt
- No optimal learning preference for the online environment
- Student satisfaction and retention are linked

Implications

- Lower retention of students with a primary learning preference of aural or physical implies the need for further research.

Limitations

- Sample size
- One institution
- Time frame for data collection
- Lack of control for differentiated instruction
- Non-traditional schedule
- Students assessed with multiple learning preferences

Recommendations

- Similar study with a larger sample size across multiple institutions
- Longer time frame to fully measure retention of adult students
- Better identification of a student's true primary learning preference
- More research on differentiated instruction in a post-secondary setting
- Specific research by the University to investigate why School of Business students reported lower satisfaction with the online program

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