

The Relationship Between Resilience and Academic Performance
of Online Adult Students

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Abstract

Enrollment in university online courses continues to increase, yet high dropout rates remain a problem with online students (Lee & Choi, 2011). A number of noncognitive factors (emotional intelligence, self-discipline, and resiliency) may be affecting the dropout rates of these students. Recently, resiliency has become the focus of educational research because its promise has yet to be realized in online education (Coşkun, Garipağaoğlu, & Tosun, 2014). Resilience typically refers to one's ability to bounce back more easily and to cope more effectively with stress (Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008). Today, many online students are nontraditional learners. These students are arguably experiencing more stress than previous generations because they are juggling school, work, and family commitments. The main purpose of the study was to determine if there is a relationship between resilience and academic performance of online adult students at Arizona State University (ASU) Online. The final sample of this correlational study consisted of seven students. Due to the limited sample size, non-parametric correlations were used to analyze the data. Results indicated a strong, positive relationship between resilience and number of online courses successfully completed (.881, $p = .009$). One implication of this significant finding is that it may provide higher education administrators and instructors greater insight into how resilience is likely to influence online academic performance, retention, and student dropout decisions. Thus, it could be an innovative strategy to initiate learning and to support online students. Future studies must consider using a larger representative sample.

The Relationship Between Resilience and Academic Performance of Online Adult Students

Enrollment in university online courses continues to increase, yet high dropout rates remain a problem with online students (Lee & Choi, 2011). A number of noncognitive factors (emotional intelligence, self-discipline, and resiliency) may be affecting the dropout rates of these students. Noncognitive skills are often overlooked in education analysis and policy, but are critical to one's success in life (Garcia, 2014). Garcia argues that "there are currently few strategies to nurture them within the school context or through education policies" (para. 2). Since one measure of online university success is student retention, creative approaches to solving the dropout problem are necessary today.

More higher education administrators are beginning to understand how these noncognitive factors can strengthen their online adult student retention strategies. One such factor that is receiving increased interest among educational researchers and university administrators is the concept of resilience, one's ability to bounce back.

This research study will help provide insight as to whether resiliency is related to the successful online academic performance of adult students. This solution will provide higher education administrators and instructors more information on how to better serve and support their adult online learners, which could give academic institutions a competitive advantage.

Background

Many factors impact online student success. Although many students may perceive online coursework through accredited American institutions of higher education as challenging, some online learners thrive and others do not. Recently, resiliency has become the focus of educational research because its promise has yet to be realized in online education (Coşkun,

Garipağaoğlu, & Tosun, 2014). For example, if online students who lack qualities of resiliency are identified early, academic advisors, retention specialists, and instructors can help these learners develop this mindset. An end result would be students who are less likely to drop out of their academic program because of their greater resilience. This means higher retention and graduation rates, which are two very important factors for a university's funding and growth.

To better understand adult students who thrive, it is important to understand the construct of resilience. Resilience typically refers to one's ability to bounce back more easily and to cope more effectively with stress (Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008). Other researchers assert that resilience is the ability to recover rapidly after experiencing some adverse experience (Bar-On & Parker, 2000). The need for this personal quality applies to university life, especially the ability to bounce back from adversity or challenges from academic work.

Today, many online students are nontraditional learners. These students are arguably experiencing more stress than previous generations because they are juggling school, work, and family commitments. It could be argued that resiliency is a factor in academic performance for online adult students. This may be the case because learners have varying degrees of abilities to adapt and function after facing adversity. Those with less resilience may be more likely to give up and drop out, similarly for the converse. Because more research was needed in this area, this investigation attempted to fill the gap.

Methodology

Purpose of the Study

The main purpose of the study was to determine if there is a relationship between resilience and academic performance of online adult students.

Research Question

The following research question guided this study: What is the relationship between resilience and academic performance of online undergraduate and graduate students?

Hypothesis:

Null hypothesis H₀: There is no relationship between resilience and academic performance of online adult students.

Alternate Hypothesis H_A: There is a significant relationship between resilience and academic performance of online adult students.

Sample Selection

The sample population was a convenience sample, which consisted of seven graduate and undergraduate students at Arizona State University (ASU) Online who were enrolled in TWC/446-546 – Technical and Scientific Reports, TWC 401/501 Fundamentals of Technical Communication, and TWC 431/531 Principles of Technical Editing. These seven students represented the total number of respondents combined from all online courses.

Research Design and Data Analysis

In order to test this question, this researcher engaged in correlational research methods. Non-parametric correlations, expressed as Spearman's rho, were conducted. Spearman's rho is based on ranked values, thus making it more robust at examining relationships where outliers and/or deviations from normality are observed.

Internal consistency was assessed using Chronbach's alpha prior to creating sum resiliency scores. This was done in order to ensure that all items within the scale moved in a

similar direction following recoding of negatively worded items, suggesting that items were measuring a similar construct.

The data was temporarily stored on SurveyMonkey. Then, this researcher moved the data over to SPSS v. 26 and ultimately shredded all confidential results

Instrumentation and Data Collection Procedures

This researcher developed and prepared items for two online surveys hosted on SurveyMonkey. This internet data collection source contained the written consent, the Brief Resilience Scale (BRS), and the Student Demographic Survey.

To ensure that the anonymity and rights of the participants were protected, this study had an informed written consent for all participants. It was presented to the respondents online via SurveyMonkey before they received the Brief Resilience Scale and the accompanying student demographic survey. SurveyMonkey was selected because of its ease of use and quality survey templates.

Resilience was measured by the Brief Resilience Scale (BRS), the key instrument that was used to obtain data on resilience. The BRS is a reliable self-rating questionnaire developed by Smith et al. in 2008. It consisted of six items—1, 3, and 5 were positively worded, and items 2, 4, and 6 were negatively worded. This scale was the best measure to use because it specifically defines resilience as the ability to bounce back or recover from stress.

An accompanying questionnaire surveyed online participants about their age, gender, education level (graduate or undergraduate), GPA, and how many online courses in their academic discipline they had successfully completed. In this case, academic performance of online adult students was defined by GPA based on a 4.0 scale.

Data Analysis and Findings

Demographics

The final sample consisted of seven students currently enrolled in three ASU Online courses. Sample descriptives are outlined below in Table 2. As shown, there was one more female (57.1%) than males (42.9%). Most participants (85.7%) of the participants were between the ages of 25-34. A similar number of participants reported having a GPA between 3.6-4.0. Number of successfully completed online courses ranged from 0 to 20 ($M = 4.71$; $SD = 7.06$).

Table 2. Sample Descriptives

| | n | % |
|------------------|---|------|
| Gender | | |
| Female | 4 | 57.1 |
| Male | 3 | 42.9 |
| Age | | |
| 18-24 | 1 | 14.3 |
| 25-34 | 6 | 85.7 |
| Education Level | | |
| Undergrad | 4 | 57.1 |
| Graduate Student | 3 | 42.9 |
| GPA | | |
| 3.1-3.5 | 1 | 14.3 |
| 3.6-4.0 | 6 | 85.7 |
| Course Completed | | |
| <i>M</i> | | 4.71 |
| <i>SD</i> | | 7.06 |
| Min | | 0 |
| Max | | 20 |

Results

Prior to conducting main analyses, negatively worded resiliency items were reverse coded, and reliability of all resiliency items was examined using Cronbach's alpha. Reliability of resiliency items was high (.90), indicating a high level of internal consistency. As such, resiliency scores were computed by taking a sum of all items.

Due to violations of normality, particularly with regard to number of courses completed, primary analyses were assessed using Spearman's rho correlations. Results indicated a strong, positive relationship between resilience and number of online courses successfully completed (.881, $p = .009$).

These results support the current hypotheses, and they provide evidence that higher levels of resiliency is associated with greater number of online courses successfully completed.

Conclusion

Resilience is a new yet growing area of online educational research. Conceptual and empirical work on resilience as a framework is gaining ground for examining why some online university students are successful and some are not. It is also generating interest as a potential strategy to enhance student online academic performance. Specifically, this includes those adult learners who succeed in virtual learning environments because of their ability to bounce back or recover from stress. The significance of conducting this study was due to a gap in the online higher education literature. Thus, this researcher attempted to determine if there was a relationship between resilience and academic performance of online adult students. Using non-parametric correlations, expressed as Spearman's rho, results indicated a strong, positive relationship between resilience and number of online courses successfully completed.

Recommendations and Limitations

Since this study had a sample of seven participants, it is recommended that future studies consider using a larger representative sample. By doing so, this will strengthen the generalizability of the findings. In terms of methodology, another limitation of the study was that The Brief Resilience Scale is a self-report instrument. Consequently, some participants may lack the introspective ability to provide an accurate response, thereby, possibly compromising the outcome.

Implications

The data reported have some significant educational implications. One implication of this finding is that it may provide higher education administrators and instructors greater insight into how resilience is likely to influence online academic performance, retention, and student-dropout decisions. Thus, it could be an innovative method to support online students and to initiate learning. In additions, educators or counselors could teach or assist learners in increasing their resiliency levels through experiential exercises and self-assessments. This idea could be incorporated into a student orientation program, self-development class, or a college success strategies course.

Continued research focused on resilience and its connection to online academic success has the potential to provide critical empirical evidence, which will inform educators and student retention specialists as they design useful interventions. Altogether, the findings suggest that it may be favorable to build resilience as a strategy for assisting online adult students, so they can personally thrive and academically excel. In doing so, this ultimately could mean higher retention and graduation rates for online postsecondary education institutions.

References

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Appendix A

Consent Form

The Brief Resilience Scale (BRS)**And Student Demographic Survey Consent Form**

You are invited to participate in a research study which has been designed to examine the relationship between resilience and academic performance of online undergraduate and graduate students at ASU Online.

After completing the BRS and the student demographic survey, your results are reviewed by this researcher, Dean Colston, Ph.D. With your signature, you state that you understand the purpose of this study.

Confidentiality

Your results are regarded as confidential and will ultimately be shredded. Your confidential results will be temporarily stored in SurveyMonkey until the research study is completed.

Instructions

First, sign and date this consent form if you are interested in participating in this study.

Second, complete the Brief Resilience Scale and the student demographic survey.

Third, you will need approximately five minutes to complete these two surveys.

Questions

If you have any questions, please contact Dean Colston at rdcolsto@asu.edu.

By signing below, you understand the purpose of this research project and agree to allow Dean Colston, Ph.D., to view your results from the Brief Resilience Scale and the student demographic survey.

Date: _____

Electronic Signature: _____

Appendix B

Brief Resilience Scale

Please indicate the extent to which you agree with each of the following statements.

1 = strongly disagree

2 = disagree

3 = neutral

4 = agree

5 = strongly agree

1. I tend to bounce back quickly after hard times. _____
 2. I have a hard time making it through stressful events. _____
 3. It does not take me long to recover from a stressful event. _____
 4. It is hard for me to snap back when something bad happens. _____
 5. I usually come through difficult times with little trouble. _____
 6. I tend to take a long time to get over set-backs in my life. _____
- Total** _____

Smith, B.W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194-200. doi:10.1080/10705500802222972

Appendix C

Student Demographic Survey

1. What is your gender?

Female _____

Male _____

2. What is your age?

18 – 24 years _____

25 – 34 _____

35 – 44 _____

45 – 54 _____

55 – 64 _____

65 – 74 _____

75 or older _____

3. What is your educational level at ASU? Are you an undergraduate or graduate student?

4. How many online courses in your academic discipline have you successfully completed?

5. What is your GPA?

3.6 – 4.0 _____

3.1 – 3.5 _____

2.6 – 3.0 _____

2.1 – 2.5 _____

2.0 – below _____