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### The Effects of Different Living Environments on Anxiety during COVID-19

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# The Effects of Different Living Environments on Anxiety during COVID-19

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## Introduction

- The COVID-19 pandemic affected how students receive their education all around the world as students were forced to receive their education at home (virtually) rather than the traditional, face-to-face learning environment.
- The virtual learning environment presents the issue of retention. Online courses have a 10-20% higher failed retention rate compared to in person courses (Bawa, 2016).
- As the pandemic continued to cause damage throughout the world, anticipatory anxiety levels increased within students as they worried about their ability to adjust and succeed academically.
- Researchers predicted an academic decline would likely occur during the Fall 2020 academic year due to the pandemic affecting the traditional learning environment (Wyse et. al, 2020).

## Research Question & Hypothesis

- How do different living environments affect students' anxiety levels during COVID-19?
- **Hypothesis:** Students who completed online courses at home will have higher anxiety levels than students who completed online courses on/near campus.

## Variables

- **Independent Variable:** Types of living environments.
  - Living at home while taking online courses vs. living on/near campus while taking online courses.
- **Dependent Variable:** Anxiety.
  - Measured by the Beck Anxiety Inventory (BAI).
- Also used the Online Course Impressions Instrument to measure participants' attitudes toward online courses.

## Participants

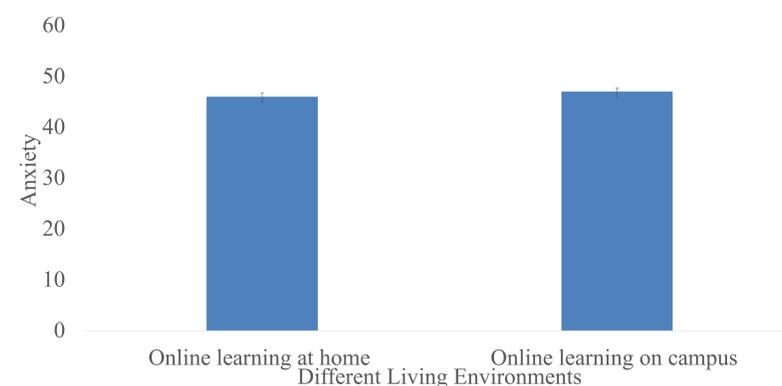
- 65 Longwood University students (50 female, 15 male) between the ages of 18-22 years ( $M_{age} = 19.15, SD = 1.27$ ).
- Participants signed up for Part A or Part B of our study via Sona Systems.

## Method

- There was a Part A and or Part B of our study due to counterbalancing for order effects.
- Participants were given 30 minutes to complete one of the surveys about their attitudes toward online courses.
- The Online Course Impressions Instrument was used to rate participants' attitudes by using a Likert scale with 1 labeled as strongly disagree to 6 labeled as strongly agree.
- Participants were also asked to rate their anxiety levels when taking online courses at home vs. on campus.
- The Beck Anxiety Inventory was used to rate participants' anxiety levels by using a Likert scale with 0 labeled as not at all to 3 labeled as severely- it bothered me a lot.

## Results

- A dependent samples t-test was conducted to analyze how different living environments can affect anxiety levels while taking online courses.
- No significant difference was found between anxiety levels when taking online courses at home ( $M = 0.710, SD = 0.752$ ) and taking online courses on/near campus ( $M = 0.729, SD = 0.701$ );  $t(64) = -0.524, p = 0.602, d = 0.065$ .
- To further assess the relationship between anxiety levels and the participants' feelings toward online courses, we conducted 19 individual Pearson's r correlations.
- 7 out of 19 items were statistically significant.



## References

- Bawa, P. (2016). Retention in Online Courses: Exploring Issues and Solutions—A Literature Review. *SAGE Open*. <https://doi.org/10.1177/2158244015621777>
- Beck, A.T., Epstein, N., Brown, G., & Steer, R.A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology, 56*, 893-897.
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- Wyse, A. E., Stickney, E. M., Butz, D., Beckler, A., & Close, C. N. (2020). The potential impacts of COVID-19 on student learning and how schools can respond. *Educational Measurement: Issues and Practice, 39*(3), 60-64. <https://doi.org/10.1111/emip.12357>

Average of my experience with online courses has been positive.	Pearson's r	-0.343 **
	p-value	0.005
Average of I hate online courses.	Pearson's r	0.365 **
	p-value	0.003
Average I've had bad experiences with online courses.	Pearson's r	0.252 *
	p-value	0.043
Average Online courses make me anxious. (3)	Pearson's r	0.531 ***
	p-value	<.001
Average of The anonymity of online courses makes me less anxiou	Pearson's r	-0.252 *
	p-value	0.043
Average of I lose sleep worrying about my online courses.	Pearson's r	0.618 ***
	p-value	<.001
Average Online courses lessen my anxieties about learning	Pearson's r	-0.291 *
	p-value	0.019

## Discussion

- To our knowledge, this is the first study that measures anxiety levels within undergraduate students during the COVID-19 pandemic.
- Based on the results of our study, anxiety levels do not significantly differ when comparing different living environments.
- We speculated response bias was a key reason as to why we did not find significant differences.
- Future research should:
  - Choose a different instrument to measure anxiety levels within participants.
  - Compare undergraduate students' anxiety levels when taking a general education course vs. a course in the students' major.
  - Compare anxiety levels between freshmen and seniors during the COVID-19 pandemic.

## Conclusions

- While our study did not find significant differences between the living environments and anxiety levels, we still gained key information from our research.
- Online courses can be completed from different living environments without impacting most students' anxiety levels tremendously.
- With no end in sight to the pandemic, online structured courses have become the new normal.
- It is good to know that despite the hardships from the pandemic, most students can practice resilience and continue their education with little to no impact on their academic success.