Examining the Effects of the COVID-19 Pandemic on Academic Performance and Motivation

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Introduction or Overview
Many facets of students’ academic and personal lives have been affected by the implementation of remote learning in response to the COVID-19 pandemic. Research on the topic of these effects on students’ academic and personal lives have yielded conflicting results. Some findings suggest that the format has a significant negative association with academic performance and motivation, while some findings suggest that this association is not significant.

Research Hypothesis/Objectives
The purpose of this study was to look at the effects that the shift to remote learning in response to the COVID-19 pandemic had on students' academic and personal lives. We predicted that students’ academic performance and motivation would be negatively affected by the shift to remote learning. We also predict that academic performance and motivation would be significantly related, and that motivation would be a significant predictor of academic performance.

Methodology or Approach
To address these hypotheses, we constructed a Qualtrics survey to assess academic performance and motivation. A modification of the CAMS assessment (Smith, et al., 2019) was included to create a score for motivation, specifically looking at responses describing themselves in different settings and in general. A section of Rotter questions was also included to gain further insight on the beliefs and feelings of the participants. Participants' academic performance was assessed using a modified version of (Somers, et al., 2021) assessment of academic performance, with a calculated overall grade as well as major specific grades. The major specific grades were calculated for each format and took into account whether the classes were taken before, during or after the pandemic. Other basic information relating to demographics was also included in question format. Participants were recruited via the Penn State SONA system.

Major Outcomes, Results and Conclusion
Our study is currently activated and has collected information from 24 participants. The evidence collected thus far refutes several of our hypotheses. A repeated-measures ANOVA was conducted to test whether there was a significant difference in academic performance and motivation based on class modality (in-person, remote, or hybrid). Results indicated that there was not a significant effect of modality type on academic performance, $F(1,11) = 2.931, p > .05$, or motivation, $F(1,11) = .314, p > .05$. Post hoc analysis also indicated that the difference between the groups was not significant. This evidence rejects the hypothesis that the change in format had a negative effect on students academic performance and motivation. A Pearson Correlation was conducted to test whether academic performance and motivation were significantly related. Results indicated that there was not a significant relationship between variables, $r(8) = -.389, p > .05$. This evidence rejects our hypotheses that there was a significant relationship between the two, and that motivation would be a significant predictor of academic performance. This would support Marler et al’s. (2021) findings that academic motivation was not found to be significantly related to the effects of remote learning.