

# **The Correlation Between Personal and Personality Characteristics and Students' Satisfaction with Online Learning During the Covid-19 Pandemic / Tal Schwartz**

## **Abstract**

Online learning, today's dominant form of 'distance learning', is education that takes place over the Internet and is often referred to as e-learning. In an online learning process learning information, including both course content and instructor guidance, is made accessible and transmitted via computer, smartphone, or another suitable device. The use of online learning has gradually evolved over the years, but the COVID-19 pandemic accelerated its use, causing a broad segment of the academic community to make a rapid and poorly planned transition to online learning systems.

The COVID-19 pandemic, declared by the World Health Organization on 11 March 2020, ushered in a period marked by a unique global and social reality, in which governments set laws and restrictions to slow the spread of the disease. Numerous areas of the economy were disabled, traffic restricted, and mass gatherings prohibited. In the Higher Education environment, students and lecturers faced an unfamiliar, complex, and rapidly challenging reality, and alongside dealing with the overall impact of the pandemic, maintained the need to learn and teach. Campus closures, one result of the pandemic, led to a sudden and comprehensive shift to online learning.

The effectiveness and success of online learning systems is dependent on a variety of factors, a primary factor being the various distances that exist between the information transmitters – the lecturers – and the information receivers the students. Online learning presents inherent challenges and opportunities that are affected by transactional distance – the psychological and communication margin between a lecturer and a student due to their different physical locations. Past studies have examined these psychological and communicative gaps in routine, planned use of e-learning systems, yet the COVID-19 pandemic, brought a different reality, high uncertainty, and a time when students, faculty, and the entire public were affected. In the present study, the theory of transactional distance is presented, and the essential conditions for ensuring the

transmission of educational information is investigated. Five different interactions involved in this theory are examined in depth, each of which has significant implications for students engaged in online learning. The five key interactions, personality patterns, self-efficacy, threat and challenge, digital literacy skills and learning strategies, are found to influence both student satisfaction and learning success.

In this study, our research question is:

Considering the unique social, psychological, and physical impacts of the COVID-19 pandemic, in what ways does the learning satisfaction of students correlate with their personality characteristics - neuroticism, awareness and openness, feelings of challenge and threat, self-efficacy, and learning indicators - digital literacy skills and learning strategies, as well as demographic characteristics - gender and academic year level?

To answer this question, a study based on multiple reliable questionnaires was developed to assess: demographics, digital skills, cognitive assessment, personality, learning strategy, self-efficacy, and specifics on learning during the COVID-19 period. We distributed the questionnaire on Facebook and to study groups on WhatsApp. A total of 157 participants from different universities in Israel participated in the study. The data was collected in a Google Forms file, consolidated into an Excel file, and statistically analyzed using SPSS.

To examine the differences between men and women, and between undergraduates and graduates, multiple MANOVA 2X2 analyses were used. To test the hypotheses about the relationships between the variables, Pearson correlation was conducted, and a hierarchical regression analysis was performed to test the contribution of the personal characteristics and the continuous research indicators to the variation in satisfaction with online learning.

Study results indicate that female students were more satisfied with online learning than their male counterparts. Additionally, students studying advanced degrees were more satisfied with online learning than those studying undergraduate degrees.

The conscientiousness and neuroticism personality indices were found to be related to satisfaction in this study. In our study, we found that students with conscientious personality patterns were more satisfied with their learning experiences. Furthermore, we found that students with higher levels of awareness and openness to experiences had higher self-efficacy. According

to this study, high levels of neuroticism among students were associated with lower satisfaction, when high neuroticism was measured primarily among female students.

We also found that higher self-efficacy was strongly correlated with online learning satisfaction. We observe that student satisfaction with online learning, which is influenced by self-efficacy, is also related to the level of threat they perceive in relation to their challenge. As we found in this study, the more students viewed online learning during the COVID-19 period as a challenge rather than as a threat, the more they self-evaluated their ability to succeed in their studies. Aside from the relationship between challenge and self-efficacy and satisfaction, the challenge index also has a relationship with satisfaction without self-efficacy. The more challenging the new school reality is perceived, the more satisfaction with the learning process will increase.

We found that digital literacy skills were highly correlated with student learning satisfaction during the COVID-19 period. These skills include the use of Zoom, Skype, Moodle, synchronous teaching systems and learning management systems. Students who demonstrate high mastery of these skills will control their study environment and use technology to improve flexibility and control, thereby increasing their satisfaction.

Our examination of deep versus surface learning strategy in this study indicates that students using a deep learning strategy during COVID-19 were happier with online learning. While among the students tested, women are more likely to use this type of learning strategy.

There are several implications of our results. Using our research findings, universities can enhance their online learning course structures. Among the recommendations of the study is to instruct the lecturers on how to structure the course structure for online learning. Students should be encouraged to take advantage of the deep learning strategy and strengthen their digital skills of online communication. Also, lowering the threat level interpreted by students when accessing online learning can have a significant positive impact on learning success and should be considered as an integral part of future online learning programs. As a result of adapting dialogue, course structure, and autonomy, the transfer of educational information by online means may become indistinguishable from traditional studying methods - conducted in a frontal manner, even more efficient and effective, resulting in high satisfactory for all.

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