

The virtual teaching process and academic self-efficacy in learning and the intention to drop out university studies in times of Covid-19

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Abstract- The purpose of this study was to test the relationship between academic self-efficacy, learning self-efficacy, the teaching-learning process, student-teacher interaction, mediated by learning self-efficacy and the level of influence on students' intention to drop out. university students in times of Covid-19. The study comprises two phases, firstly, an exploratory factor analysis using the IBM-SPSS, to determine the correct adaptation of the factors with their corresponding items, secondly, the confirmatory analysis was carried out, for the validation of the structural model proposed and establish the relationships of the factors proposed in the model, the PLS-SEM methodology, Modeling of Structural Equations with Partial Least Squares, was used. The model was validated with a sample of 230 students in a private university in Peru and is explained by the determination coefficient R² in 51.9%, so it is inferred that there are other latent factors or variables that would explain the intention dropout in university students by 48.1%.

Keywords— virtual teaching process, academic self-efficacy, learning self-efficacy, Dropout intention, Covid-19, PLS-SEM.

I. INTRODUCTION

Self-efficacy is a person's belief in their own ability to organize and execute actions necessary to manage and be successful in a particular situation. Expectations of personal efficacy involve performance achievements, vicarious experience, verbal persuasion, and physiological states.[1]. In the field of educational psychology, self-efficacy has been the focus of research for the last three decades[2] and it is virtual learning environments, which provide a perfect interface to organize online learning and pedagogical strategies to adapt to the specific needs of students [3].

One of the success factors of e-learning is self-efficacy, which plays a vital role in online learning. Although much research has focused solely on computer self-efficacy, the effect of a more specific factor: the self-efficacy of online learning is still largely unknown.[4].

Yokoyama,[5]cautions that attention has been paid to academic self-efficacy in educational psychology as an influential factor in improving academic achievement, and has examined the relationship between self-efficacy and academic achievement online and its future directions. One such study has been that of Honicke & Broadbent,[6] who researched the relationship between academic self-efficacy and academic performance of university students, and the known cognitive

and motivational variables that positively explain this relationship.

Padilla Rodríguez & Armellini, discuss self-efficacy as a strong predictor of academic performance and as an area of interest for higher education institutions[7]. Their results show statistically significant increases in overall self-efficacy after completing an online course. The strong link between academic achievement and self-efficacy suggests that online courses can be a valuable resource for addressing attrition, improving retention, and enhancing students' study skills.

For students who have ever participated in MOOC (Massive Open Online Course), this experience allows them to represent low-risk training opportunities to broaden their knowledge and increase their self-efficacy. Participants are aware of and value their own experience[7]. Although, if the student's self-esteem and self-efficacy are low, they may have fewer aspirations and a weaker commitment to the goals they have chosen to pursue.[8].

Another study examined the self-efficacy of online teaching during Covid-19, the main associated factors being the lack of experience in online teaching, the separation of professors from students, the administrative process of the school and the unsatisfactory academic performance of students. There was an effect of adaptability and exhaustion of professors towards online switching as the only significant moderator[9].

The research of Hayat and others [10], had as main objective to study the mediating effects of metacognitive learning strategies and emotions related to learning. Their results indicate that students' self-efficacy has an impact on their emotions related to learning and on metacognitive learning strategies, and these, in turn, affect academic performance.

The analysis proposed by Herrington evaluated the multi-user virtual environment integrated with Moodle technologies, as a platform for teaching courses. He suggested that self-efficacy is related to the efficiency of learning in a virtual world and according to the theory, increased use of a virtual world increases the amount of self-efficacy the user experiences. The findings imply that the technologies have potential as a distance learning platform[11].

However, self-efficacy is not only a phenomenon that is present in the student, but also involves professors. Professor