

## **Analysis of factors involved in the teaching-learning system in a state of emergency**

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### ***Abstract***

*The present work arises as a consequence of the current situation that is being experienced worldwide due to COVID 19 and the repercussions it has had on households, especially in the adaptation to new forms of work and teaching, affecting social, economic and cultural aspects. The pandemic has hit the poor and vulnerable hardest, and could push millions more people into poverty, especially in Latin American countries. In this context, in Ecuador, due to the COVID-19 pandemic, extreme poverty is likely to increase dramatically.*

*The study focuses on the application of different multivariate techniques, such as, Discriminant Analysis, Cluster Analysis and ROC curve, to develop a multidimensional poverty index based on non-monetary household resources such as equipment and basic services.*

*With the combined use of the proposed techniques, an indicator was obtained that can serve as a tool for measuring the factors that can affect extreme poverty in Ecuador and it can be used to introduce continuous improvement actions in the resource assignments.*

**Keywords:** *Poverty Index, Digital Divide, Multivariate Techniques, Latin America*

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