Predictive Analytics Algorithms: Mitigating Elementary School Drop Out Rates

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Abstract : Educational institutions and authorities that are mandated to run education systems in various countries need to implement a curriculum that considers the possibility and existence of elementary school dropouts. This research focuses on elementary school dropout rates and the ability to replicate various predictive models carried out globally on selected Elementary Schools. The study was carried out by comparing the classical case studies in Africa, North America, South America, Asia and Europe. Some of the reasons put forward for children dropping out include the notion of being successful in life without necessarily going through the education process. Such mentality is coupled with a tough curriculum that does not take care of all students. The system has completely led to poor school attendance - truancy which continuously leads to dropouts. In this study, the focus is on developing a model that can systematically be implemented by school administrations to prevent possible dropout scenarios. At the elementary level, especially the lower grades, a child's perception of education can be easily changed so that they focus on the better future that their parents desire. To deal effectively with the elementary school dropout problem, strategies that are put in place need to be studied and predictive models are installed in every educational system with a view to helping prevent an imminent school dropout just before it happens. In a competency-based curriculum that most advanced nations are trying to implement, the education systems have wholesome ideas of learning that reduce the rate of dropout.