

Discovering rules for nursery students using apriori algorithm

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ABSTRACT

Over recent years, there has been a rise in the number of students completing nursery education in Bangladesh. However, in order to achieve a sustainable education goal, the dropout rate in education needs to be reduced. Therefore, this research worked on providing insights that would help to understand the possible causes of dropout from education. Since primary education is the starting point for every student, this research has been conducted on this part of education. The research used data obtained from a European country, Slovenia to use the insights of a developed country. The study was conducted using association rule mining where several mining rules were generated using the Apriori algorithm. The rules obtained had the confidence of 0.95 and support of 0.04. The result showed three major rules of dropping out children in nursery education and eventually helps to ensure higher education for all children.

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1. INTRODUCTION

United Nations Development Program set 17 Global Goals, which is known as Sustainable Development Goal (SDG). Quality Education for all girls and boys is one of the major goals in that list which asking for ensuring free education until secondary school for all by 2030 [1]. Bangladesh is a developing country and the recent rise in the rate of literacy is constantly accelerating the country's growth and prosperity. According to UNESCO, the literacy rate of the population aged 15 to 24 in 2017 was 92.95% [2]. This is a clear indication of the fact that people are getting aware of the need for education. Students of the current generation are willing to complete their tertiary education, which plays a vital role in the country's development. However, most of the students are not to continue their education due to various issues. Therefore, works need to be done on ensuring that more students continue their education until the tertiary level. In other words, it is important to decrease the dropout rates of nursery education. According to the leading newspaper in Bangladesh, the dropout rate was about 18.8% in 2017 [3]. A report by the Bangladesh Bureau of Statistics mentioned that the major reasons for students dropping out from the primary level were lack of financial support, not interested, doing work to support the family and failed examination [4].

In order to decrease the dropout rate, it is important to work on the primary level so that the students can be motivated to continue their education. However, the reasons for the dropout cannot be ignored and any solutions to decrease the dropout rate must address these reasons as well. It is very much clear from the different statistics that we have to work on the primary level of education in order to reduce the dropout