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Predicting future rank and score of graduation by using student's status and temporal behavior

Beesung Kam and Byung Kwan Choi
Pusan National University, South Korea

Although there is a rich literature predicting student performance based on courses and lectures, it is much less studied in predicting degree completion upon affection of student's personality. Student's low score of graduation is a critical issue in medical school because students who result in lower scores mostly fail from Korean Medical Licensing Examination (KMLE). This paper introduces a method of supervised learning to predict future rank and score of students by using information provided prior of entrance to the school. Data sets of 256 number of graduated students from Pusan National University School of Medicine school year of 2016 and 2017 were distributed to machine learning by 2500 times. By using method of ordinary least squares regression three groups of students were established depending on their achieved final graduation to low, mid and high scores. These groups were used as a guideline to pivot personality data of freshmen for further comparison. Prediction analyzed by student's status, based on their student's temporal behavior such as age, sex, blood type, school of graduation, district, major, hobby, religious, drinking habit, parent's status, tuition method of payment and registration to an application can influence on their future earned rank and score. Predicating future student rank and score helps to monitor, review and re-establish student's road map to enhance learning progress. This prediction not only helps student to know how they do but also encourages them as a feedback to reinforce their current method of learning for further improvement. Although increasing pilot data for this study can enhance the study achievement and improving student personality can be challenging, method of determining low score of graduation by machine learning can sparkle new era to progress learning.

Biography

Beesung Kam has his degree in Computer Science and another in Medical Anatomy. He has completed his second PhD from Pusan National University School of Medicine. He is the Director of Maritime Mobile Health Research, a premier bio-soft service organization. He is researching in the area of medical education since 2005 and has digitalized student assessments of different grades.

beesung@pusan.ac.kr

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