Abstract

Learning one’s own strengths and weaknesses is essential when making important life
decisions; especially for students that are obliged to make decisions about what path they are to
persuade leading them to a carrier path without regret. Today most of the students do not have
a proper understanding of their own talents, abilities or how they can accomplish their future
goals. The system mentioned in this research paper provides a solution by helping grade 10
and 11 local students to learn about their own strengths and weaknesses thus guiding them
when making important decisions about what paths to follow in the future and what aspect they
need to improve on. Students’ past performances, logical thinking and other attributes were
taken into consideration to provide an accurate and comprehensible output depicting their
weaknesses and strengths. Moreover, the output was analysed and used to aid teachers when
dividing student groups inside the classroom for cooperative group activities. An intelligent
system driven by algorithms to support logical and cooperative grouping strategies that uses
statistical analysis and output analysis along with an online quiz for students to learn their
logical thinking skills were used to produce the expected output. Information about extracurricular activities were collected from a selected group of 50 students using a questionnaire that had being analysed by the research group. Patterns of students’ scoring were analysed to predict the score the same student would gain in the future using data mining methods and tools. Sisu Manthalawa is a web application that can help the local students to make decisions thus helping them stride towards a better future.

References


**Index Terms**

Computer Science Information Sciences

**Keywords**

Cooperative group activities, data mining, grouping strategies, intelligent system, logical thinking, making decisions, online quiz, strengths, weaknesses