



(Awokoya E.A and Adeyemo A.B)

Department of Computer Science, University of Ibadan
{ayodeleawokoya, sesanadeyemo}@gmail.com

INTRODUCTION

The academic performance of students is a key factor in making institutions stand out and it also determines how students enroll into the school. In order to give quality education which leads to good performance from students, the tutors need to know the academic ability of their students. Hence, educational managers can make strategic decision to improve students' performance.

OBJECTIVES

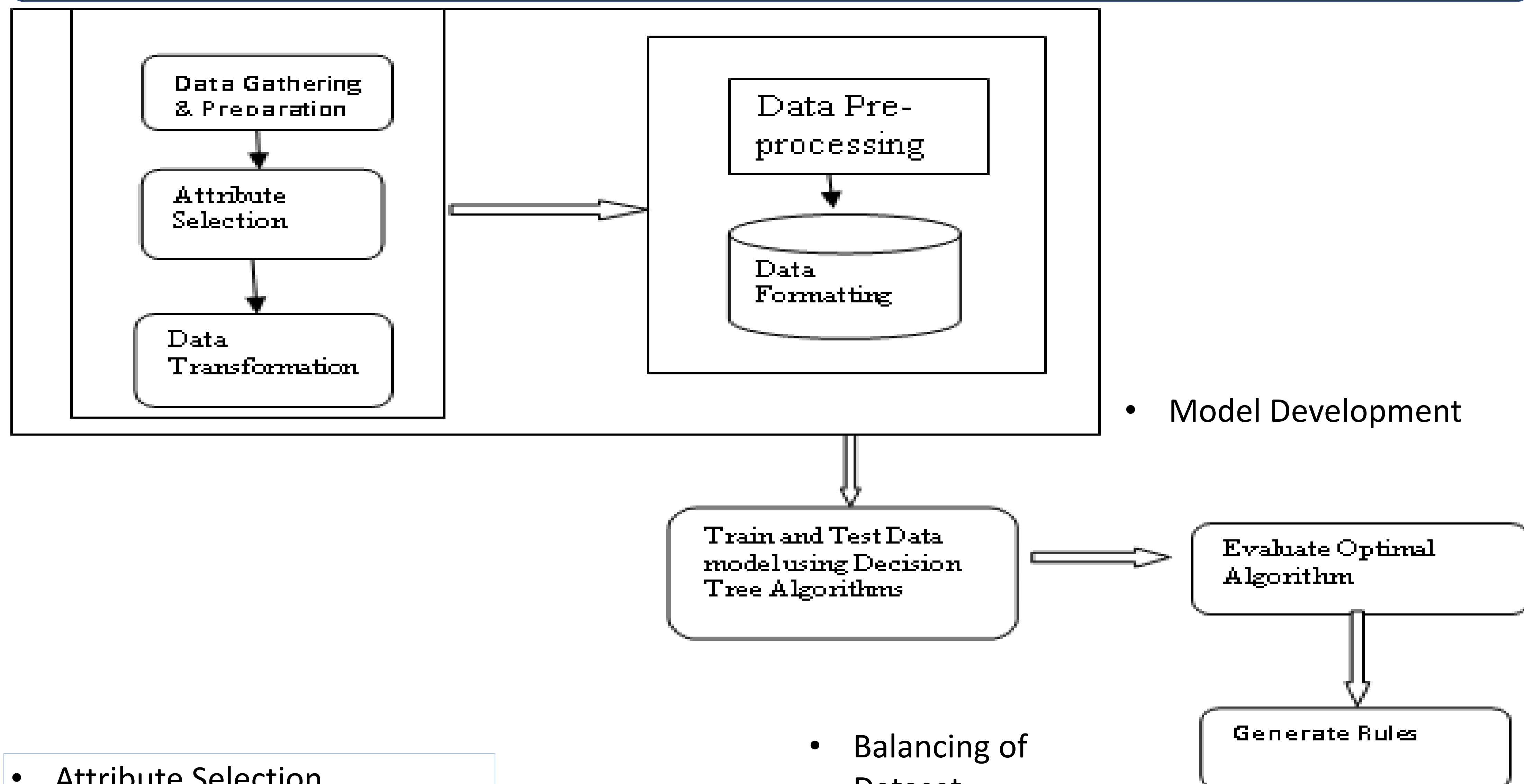
- Determine the set of attributes contributing towards postgraduate students' academic performance
- Develop a model using the set of attributes
- Generate rules from the model for strategic decision making by educational managers.

MATERIALS USED

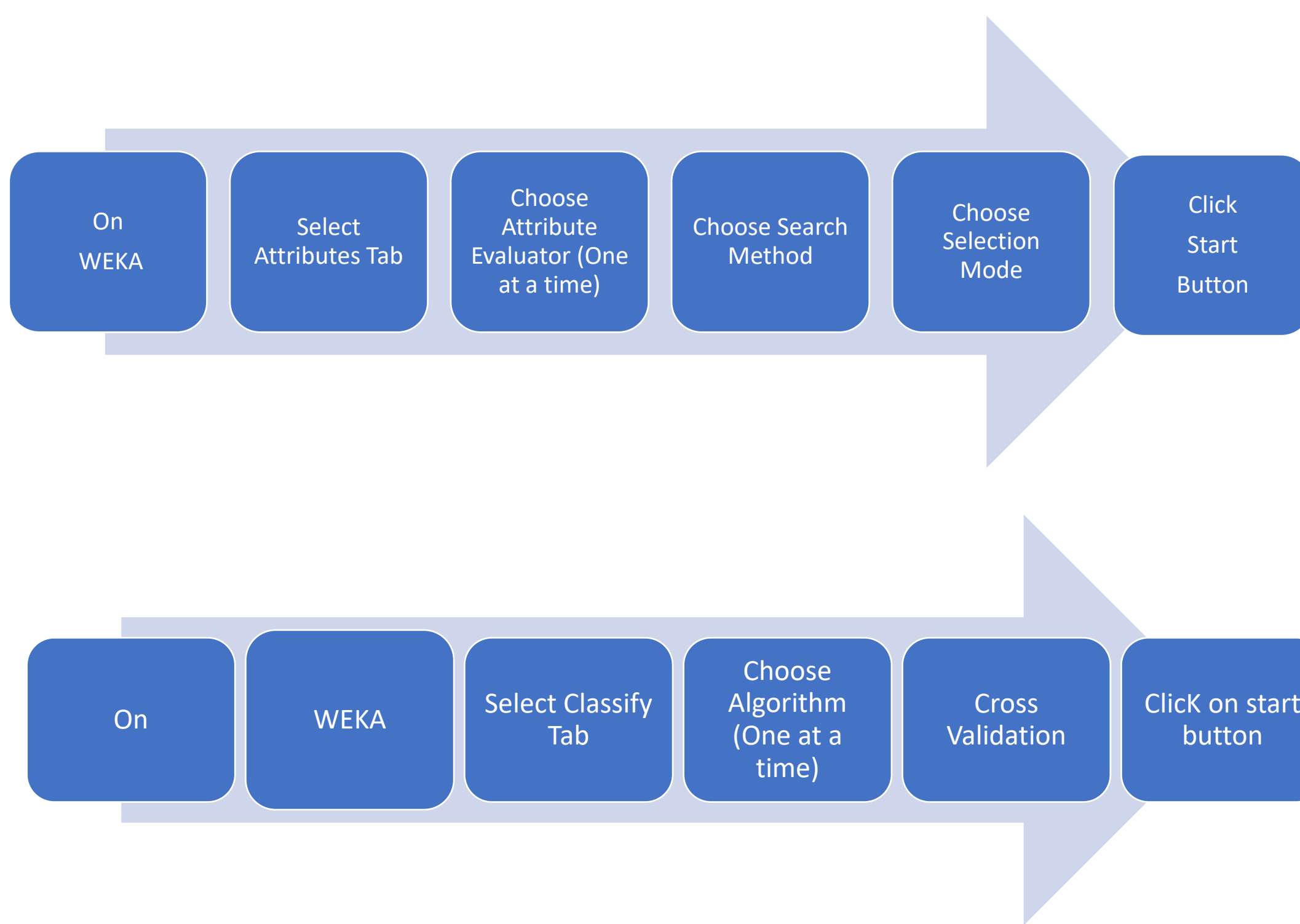
1102 records of Computer Science Postgraduate masters students' data over a period of 5 years was collected from the Postgraduate ICT unit and Computer Science records office of the University of Ibadan. Waikato Environment for Knowledge Analysis (WEKA) open source ML software was used for analysis.

The dataset was later reduced to 183 records after the dataset was pre-processed before it was fed into WEKA.

METHODOLOGY



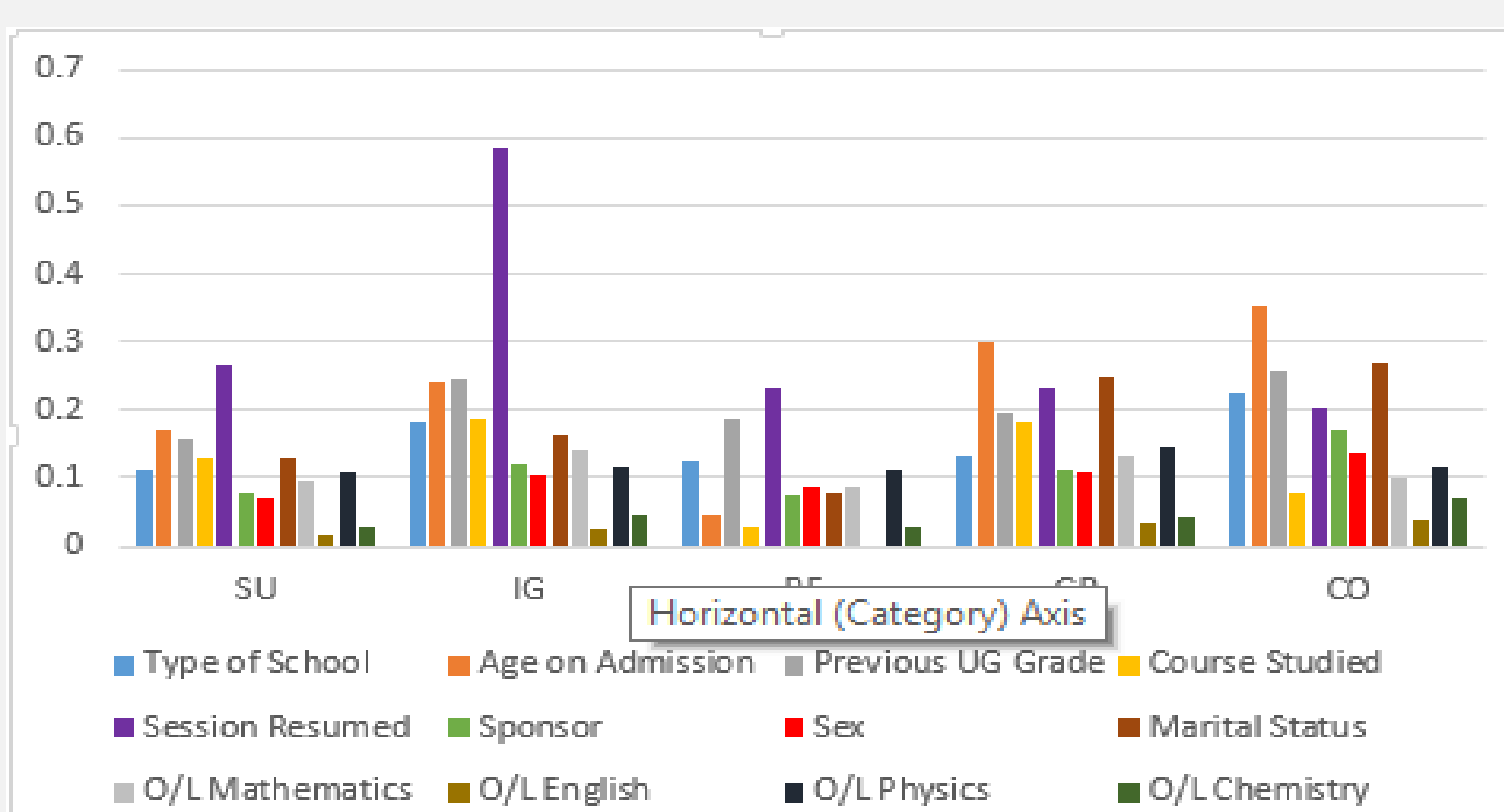
Attribute Selection



Balancing of Dataset

- On the Extended Weka
- Click on Preprocess Tab
- Choose Filter (Smote-ENN)
- Click Apply

RESULTS



Attributes has ranked by evaluators

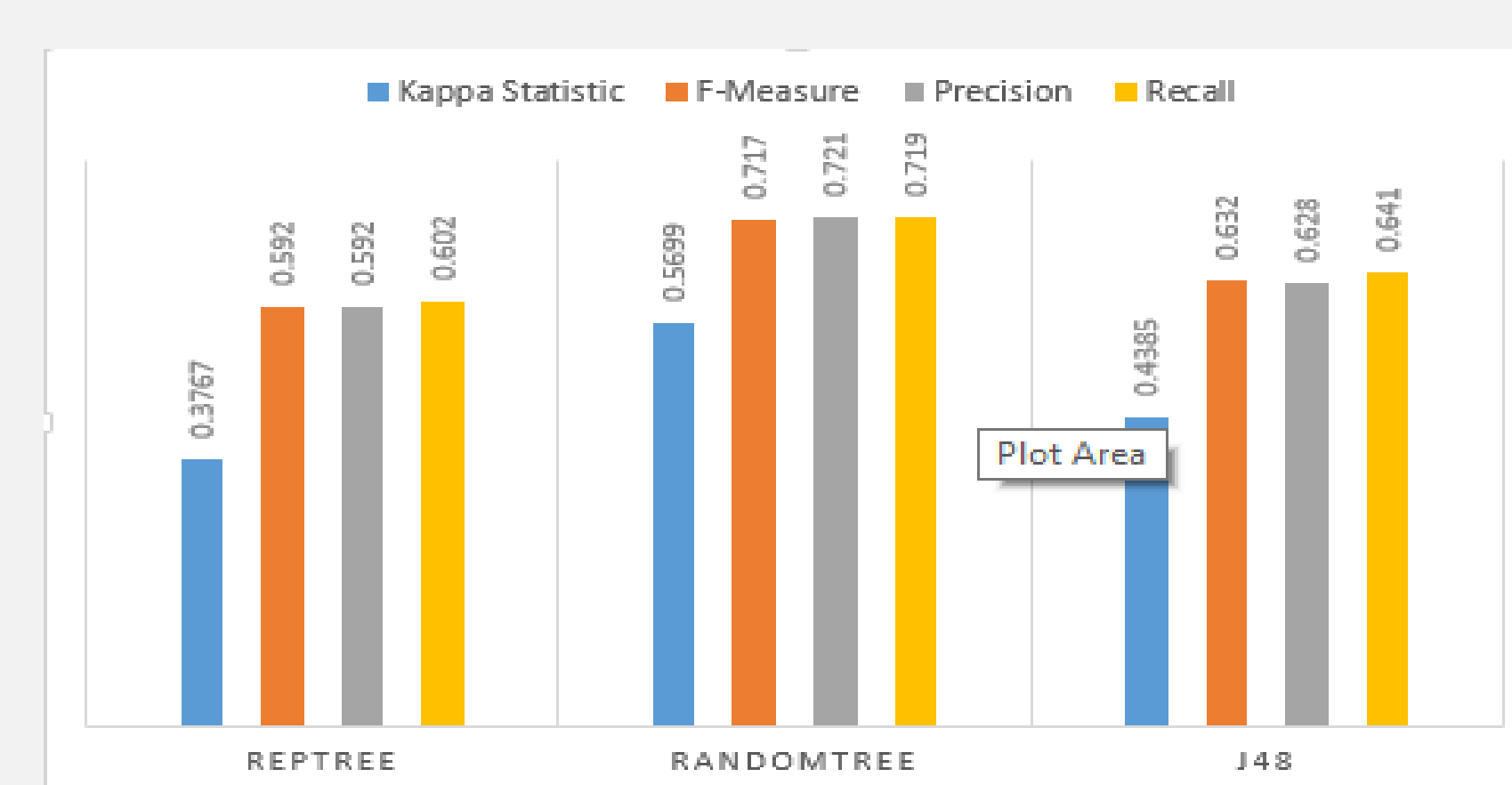
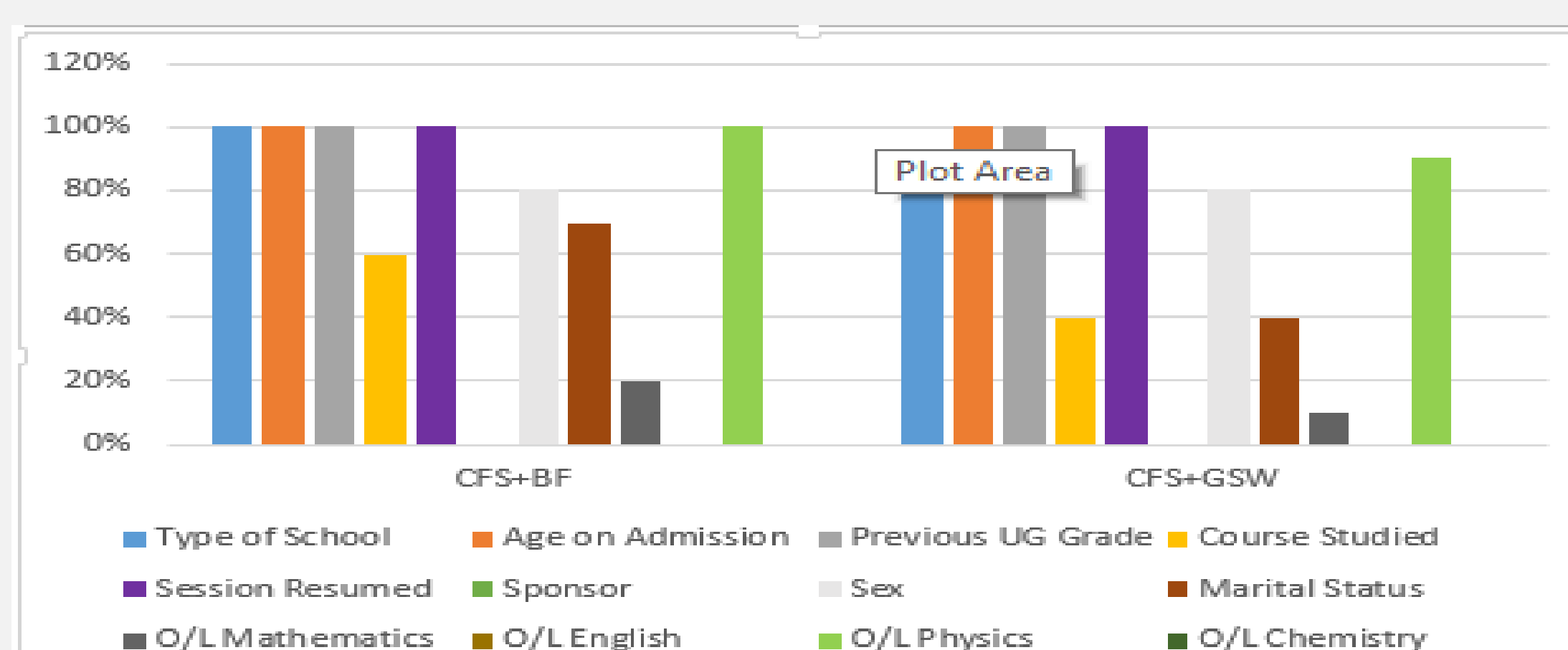


Chart Comparing Classifiers on modified dataset

Tree generated by the model from which rules were inferred

