

Course Difficulty Document

Project Name

Visual Schedule Builder Plus (VSB_Plus)

Generate difficulty tag for course

Using the average grade of class to generate the course difficult.

For example, if one class's average grade is under the 50, it will get the very difficult tag.

Very difficult: Average ≤ 50

Difficult: $50 < \text{Average} \leq 60$

Normal: $60 < \text{Average} \leq 75$

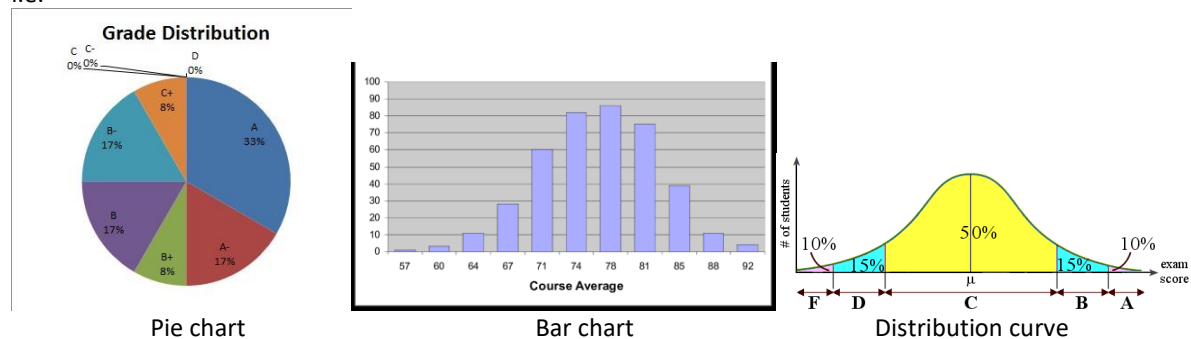
Medium: $75 < \text{Average} \leq 90$

Easy: $90 < \text{Average} \leq 100$

Performance Requirements

It could be better that using the bar or pie chart graph to visualize the difficulty, grade trend or distribution.

i.e.



Future Improvement

For the purpose of more accurate and fair course evaluation, the method of distribution classification would be improved by other methods or hybride methods.

i.e. Classifying equation

course difficulty = $w_0 * \text{mean of final grades} + w_1 * \text{mean of midterm grades} + w_2 * \text{attendance rates} + w_3 * \text{mid-final increasing rates} + \dots$

i.e. Unsupervised machine learning

Using features (columns) from the database for each students (rows) within the same course, and applying different weights, to predict the difficulty level. And compare the predicted level with the original classification with a bias term for error prevention.