Marking Correlation

Romain Lhotte & Paul Dubois* April 13, 2023

Abstract

The evaluation of students' performance in higher education plays a crucial role in assessing the effectiveness of teaching methods and improving learning outcomes. In this study, we investigate the correlation between two teachers' grading practices in a deep learning course at the master's level, offered at Centrale-Supélec. The two teachers, who have distinct teaching styles and backgrounds, were responsible for marking the final project oral presentation. Our results indicate a significant positive correlation between the two teachers' grading practices, suggesting that their assessments of students' performance are consistent. Our findings provide insight into the reliability and consistency of grading practices in higher education and can inform efforts to improve the quality of teaching and learning outcomes.

1 Introduction

In recent years, there has been a surge of interest in the field of deep learning, with applications ranging from computer vision and natural language processing to bio-informatics and medical diagnosis. As a result, there is an increasing demand for high-quality education and training programs in deep learning. In response to this demand, many universities and engineering schools have started offering courses and programs in deep learning at various levels, including undergraduate and graduate levels.

2 Methods

2.1 Participants

The participants in this study were 28 students enrolled in a deep learning course at the master's level offered at CentraleSupélec during the academic year 2022/2023. The class was taught by two instructors, both of whom had distinct teaching styles and backgrounds.

2.2 Evaluation Framework

The evaluation of students' performance in the course was based on six components, which accounted for the final grade.

The first five components were Kaggle challenges, each accounting for 6% of the total mark, adding up to 30% of the final mark. For each challenge, a marking scheme was established, which was publicly shared with the students. The marking scheme included specific scores to be reached on the leader-board, with 3/6, 4/6, 5/6, and 6/6 corresponding to different levels of performance on the challenges. The top 10 students on the leader-board who had achieved at least 5/6 were awarded a score of 6/6 for the challenge.

The final component was a project, which accounted for the remaining 70% of the final mark. Students completed the project in groups of 2-4, and the project was assessed based on an oral presentation of approximately 10 minutes, followed by approximately 10 minutes of questions. The final mark for the project was the average of the two independent marks given by the two instructors, who graded the projects separately.

2.3 Ethical Considerations

This study was conducted in accordance with the ethical guidelines of CentraleSupélec, and all participants were were anonymized for confidentiality purposes.

 $^{^*}$ both authors contributed equally to this work

- 3 Results
- 4 Discussion
- 5 Conclusion