Flagged Items in written assessments correlate with students' performance

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Background

• Higher education students are subjected to several stressful events, namely assessment tasks, during their academic years. Their capacity to cope with these stressors is dependent on personal characteristics and environmental conditions.

• It is known that individual personality characteristics affects student's cognitive performance during assessment.

• "Biopathology and Introduction to therapeutics" (BPT) is 24-week course in year 3 of the 6-year program of the University of Minho, integrating the disciplines of Genetics, Immunology, Microbiology, Pharmacology and Pathology, with 12 years of experience.

General aim

• To test the hypothesis that student's behavior monitored during e-assessment is correlated to cognitive performance.

Methods

We present the students' flagged item analysis.
Correlation with item performance was evaluated by:

i. Students were grouped in quartiles according to the average of 4 modular unit scores.

ii. The electronic register (medQuizz®) of 128 students' assessment (3rd year curricular unit) was analyzed.

iii. For each student, the number of items flagged during the assessment were counted and the resulting score was calculated.

iv. The number of flagged items and the % of correct answers in flagged items were analyzed for each student.

Results

Average flagged items increased with quartile position. Flagged item number varies according to examination but has a similar trend from Q1 to Q2. (**Figure 1**)

The number of correct choices increases with quartile position. The percentage of correct choices in flagged items is higher in Q3 and Q4. (**Figure 2**)

The correlation between flagged item average and % correct choices seems to be related to the discrimination power of items. (**Figure 3**)

Conclusions

Our data suggest that top scorers flag items more frequently and are more likely to correctly answer items that were flagged.

Acknowledgments

Figure 1 . Students' flagged items by quartile and modular exam.
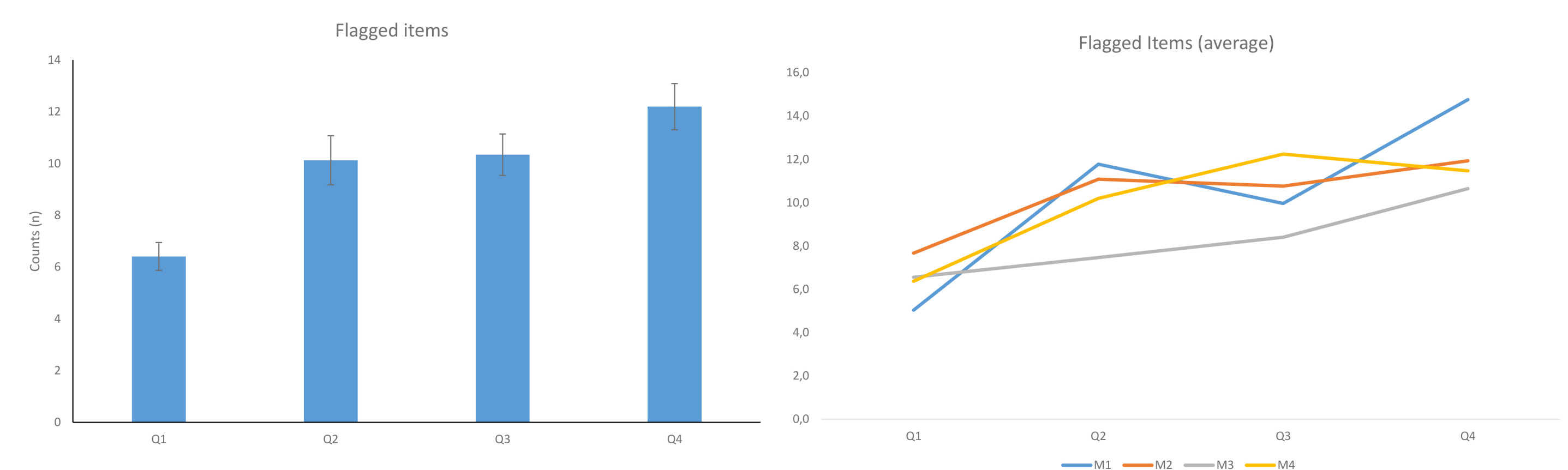

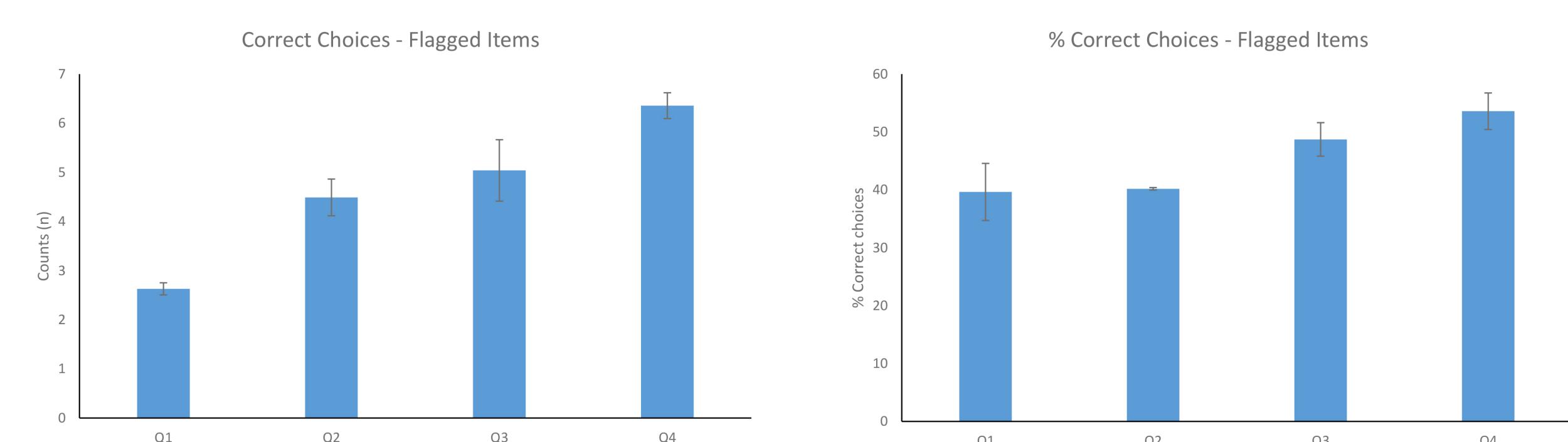**Figure 2.** Students' correct choices on flagged items per quartile.

Figure 3. Correlation between flagged items and correct choices.

Neurosciences Research Domain
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