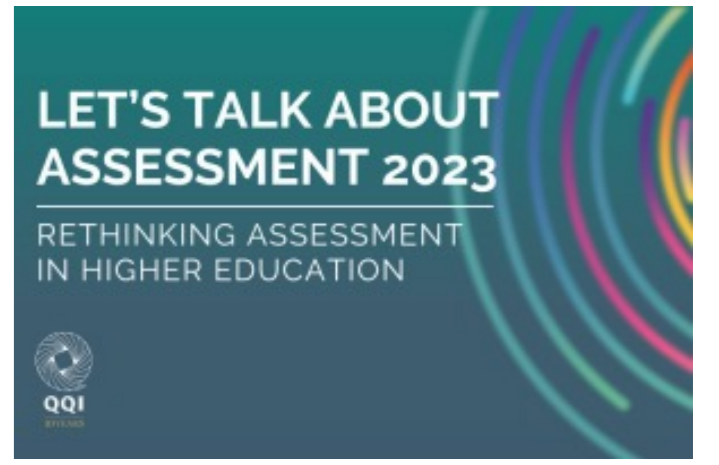


Improving group assessment design to reduce plagiarism and increase student engagement in a large class

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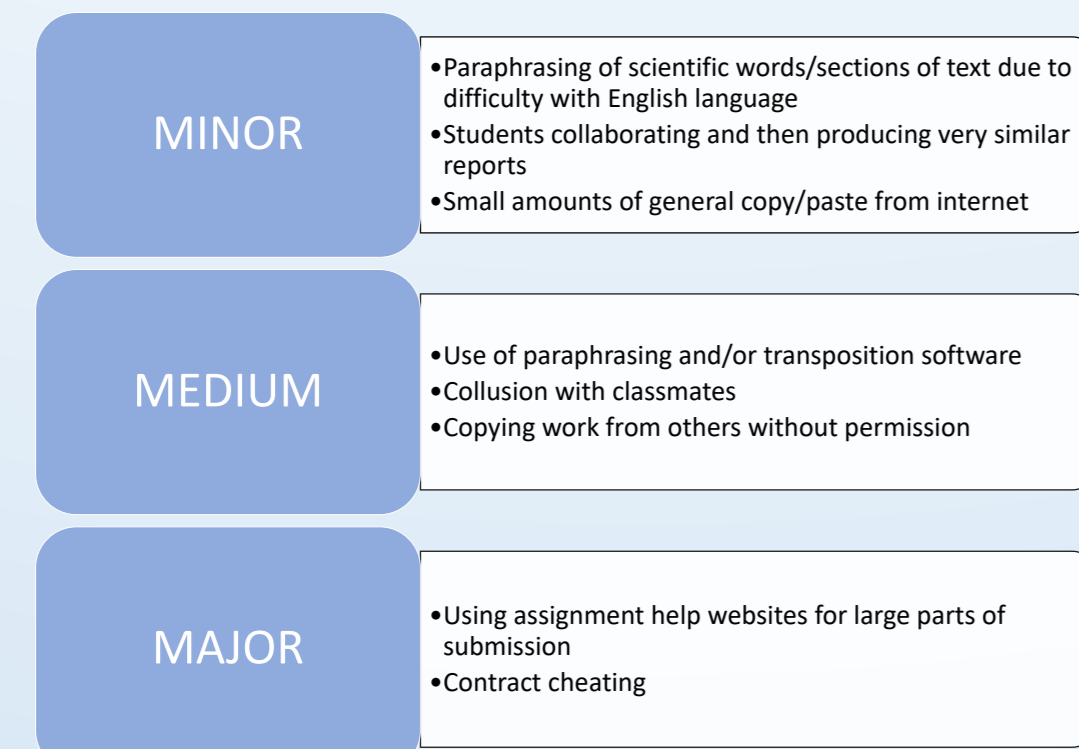


Aims & Objectives

- To design more plagiarism-resistant group assessments
- To incorporate a fair grading scheme with both individual and group components
- To improve student engagement in a large class setting

Background/Introduction

During the Covid-19 pandemic and with the associated increase in online delivery of modules, there was an understandable decrease in the use of group assessments. This corresponded with an increase in plagiarism seen in individual assignments submitted across our level 9 modules in the MSc in Pharmaceutical Business & Technology programme. Given the importance of academic integrity, this worrying trend was taken seriously. But dealing with the high number of these cases became burdensome. We began to investigate what kinds of plagiarism were happening, how learners were going about it and why they were taking these options. We discovered a spectrum of plagiarism as below:



Feedback from students indicated that part of the problem stemmed from isolation and lack of interaction with lecturers and classmates during Covid-19. Another issue was the targeted communications from online companies with tempting offers of 'assignment help' and 'plagiarism checking' for students. In some cases, initial material was provided for free before money was requested for completing the assignment. Plagiarism came to light in some cases because a number of students were sold the same or similar reports from the more unscrupulous companies operating in this space.

Rather than just dealing with the investigation and subsequent sanctioning of students, our efforts focused on prevention rather than cure. With the return of face-to-face teaching and with a large class size, we had a unique opportunity to design an interesting, real-life assignment which, by its nature, would hopefully be more effective at ensuring academic integrity and originality, while at the same time reintroducing socialisation and teamwork.

The marking scheme in group assignments can be a source of frustration for learners, especially when they feel that the workload has been inequitable or that some people have not pulled their weight. We endeavoured to apportion half the marks for the group work and the other half for individual contribution.

Plan

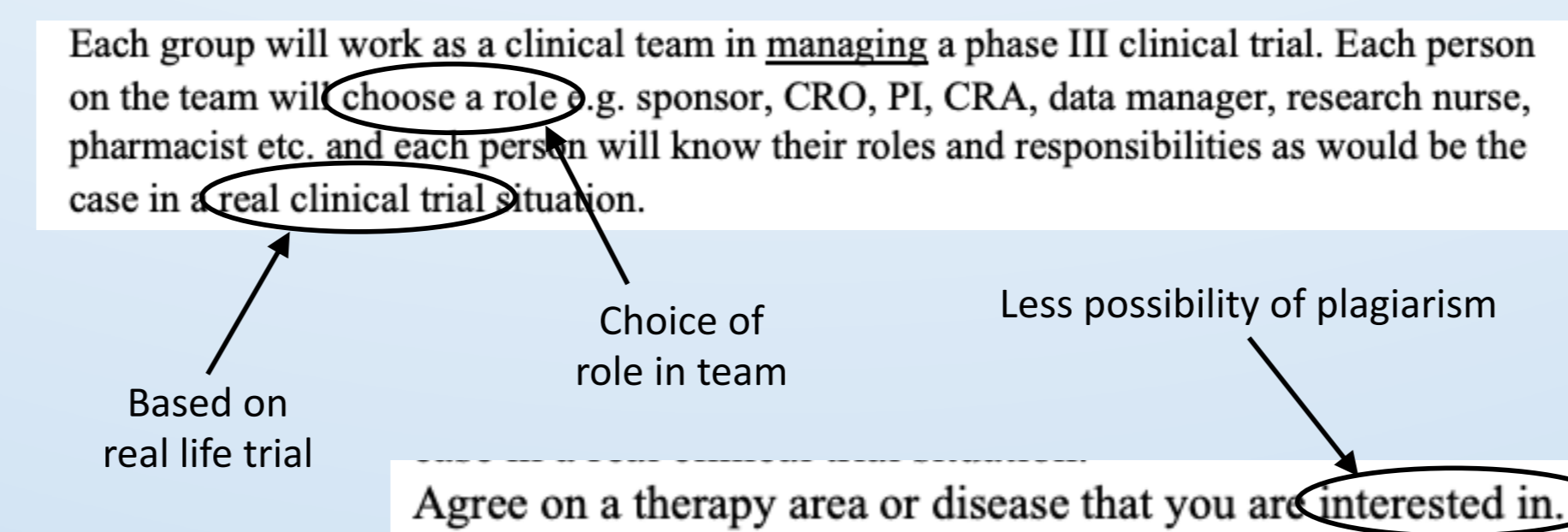
- To use a group assignment for 50% of the marks in the level 9 Clinical Research Management module (10 ECTS) which had 175 students enrolled
- To ensure the assignment emulates real life for an authentic experience
- To use a fair grading scheme whereby there would be a 50/50 split of marks for individual/group contribution for the assignment
- To introduce elements of choice into the assignment so that academic integrity is easier to uphold

Challenges

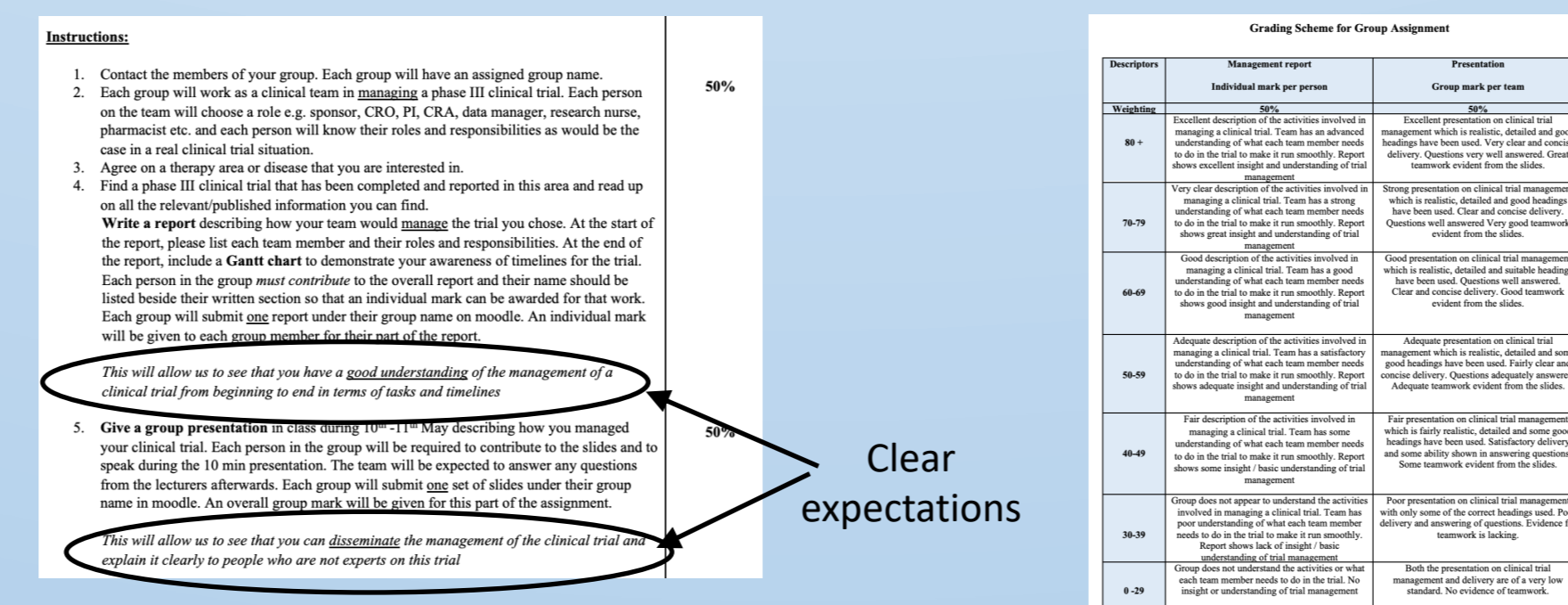
- Managing a large number of teams of students
- Making the assignment interesting and plagiarism-resistant as well as delivering on the learning outcomes for the module
- Keeping the instructions easy to follow
- Setting out clear and concise expectations
- Offering choices in the assignment at both group and individual level so students could take some ownership of the project
- Making the marking scheme fair and transparent
- Giving formative feedback during the assignment
- Adding in life skills such as dissemination, time management etc.

Method

- Class size of 175 allocated into 35 teams of five
- Each team had a mix of men and women and included students from different cohorts, countries and educational backgrounds
- Teams nominated their own leader and organised their own meetings
- Teams chose their own clinical trial in a therapy area of interest to them which made every assignment unique and hence difficult to plagiarise
- Each team member chose their own role in the clinical team so they could play to their strengths but each role had a workload associated with it



- The instructions for the assignment were clear and concise
- The expectations for each part were mapped to a learning outcome
- A class was set aside for guidance in writing the report and preparing a GANTT chart
- The marking scheme was detailed and fair
- Marks were given for the first half of the assignment – a group report - before teams did the second part by way of formative feedback
- Individual marks were given to each person's contribution to the report where they wrote about their role in managing the chosen clinical trial



- Each team had to deliver a 15 minute peer presentation in front of the class about their clinical trial
- Each team member had to speak during the group presentation so that everyone had to contribute and an overall group mark was given
- Two lecturers marked each part of the assignment and the average mark was given in each case

Findings and Feedback

- Students found the group assignment challenging but rewarding
- Personality conflicts and any workload issues within teams were resolved internally by the teams themselves
- Any free-riders were easily identified from their substandard contribution to the report and were given a low mark for this component
- As each member of the team had to speak in the presentation, this enhanced the group work ethic since no one person could be dominant. However, the whole series of talks took two days!
- For some learners, this was their first time giving a presentation to their lecturers and peers so they were proud of themselves afterwards
- Some individual comments:
 - "Strength of the module was the clinical research presentation"
 - "Group studies are a better way to understand"
 - Some students uploaded photos and positive comments on LinkedIn such as the example here
- Students appreciated the choices they could make in the assignment as it gave them some control over the project
- The different learning aspects of the assignment meant that its design embraced Universal Design for Learning (UDL)
- Giving students choice in this assessment was found to encourage originality and creativity while reducing the opportunity for plagiarism since each assignment was, in effect, unique
- This was borne out in practice as the level of plagiarism was found to be 9.5% in the previously corrected individual assignment and dropped to 0.6% in this group assignment – both for the same module in the same semester
- Engagement among students was improved, partly due to interaction with, and learning from, their multinational peer group



Conclusions

- A group assessment was designed, used successfully in this module and resulted in a decrease in the level of plagiarism from 9.5% in their previous assignment on the same module to <1% in this assignment
- A transparent grading scheme with both individual and group components was applied and found to be fair by the learners
- Student engagement was strong even with the large class numbers

Recommendations

- When designing a group assignment, it is worth bearing in mind that group work does not necessarily have to be a marked component of an assessment and that other outputs for marking such as infographics, videos etc. can be used instead of a presentation
- Offering more interesting assignment designs gives learners a chance to move away from the traditional individual written report and gain more transferable and professional skills in teamwork, communication and problem-solving
- Module coordinators should aim to review their assessment strategy periodically with a view to having a variety of assessment designs across a programme. Such a UDL approach enhances the learning experience for everyone and gives all students a chance to shine

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About the author: Gillian McMahon did her BSc in Analytical Science in DCU and her PhD in Biopharmaceutical Analysis in RCSI/DCU. She has worked in a number of Pharmaceutical companies e.g. Zeneca (UK) and Bristol-Myers Squibb (Ireland) as a Development Chemist and Analyst. She has spent many years lecturing in academia e.g. DCU, RCSI, TU Dublin as well as successfully funding and running her own research group. She is currently a Programme Lead and Lecturer with Innopharma and Griffith College.

