Plagiarism detection for group assignments; lessons from the fraud triangle.

Michael Farrell
Michael.Farrell@dcu.ie
DCU Business School
Dublin
Abstract:

Plagiarism issues can severely undermine the learning objectives of group assignments that require the submission of a final group report. This paper examines plagiarism issues through the lens of fraud theory by focusing on one element of the fraud triangle: Opportunity. This case study suggests adding an additional requirement to group assignments that require final reports to contain the minutes of all group meetings held throughout the assessment period.

By adding this relatively simple intervention mechanism, a lecturer will receive documented evidence of how a group proceeded with the assignment. This provides two significant benefits; firstly, the meeting minutes act as additional tool for highlighting potential plagiarism issues as the lecturer can rationalise the group report answer components against the development of those components. Secondly, instead of just viewing the outcomes of group work i.e. the final report submission, a lecturer now has oversight of the learning process the group went through. This provides valuable corroboratory evidence when deciding on final grades.

Keywords: Assessment, Ethics, Integrity, Accounting, Fraud, Plagiarism.
**Introduction**

Academic integrity risks are similar to fraud risks in the business world (Scott, 2017). Fraud risks are often conceptualised through the fraud triangle model which was introduced in Cressey’s (1953) work on the psychology of fraud. According to the model, there must be a pressure to commit fraud, an opportunity to commit fraud, and a rationalisation for committing a fraud. Similarly, in an academic environment, students have pressures, opportunities, and rationalisations that could negatively affect academic integrity. As an individual academic, I cannot significantly reduce the pressures on students but I can affect the opportunities for cheating by strengthening the internal controls of my assessments. In addition, but to a lesser extent, it is possible to affect students’ rationalisation processes.

**Background**

I currently run a group assessment for second year Accounting & Finance degree students. The group assignment is a case study report of a stock-exchange listed company operating in Ireland. All groups report on the same case company and I change the case company every year. The average class size is 100, the average group size is four students per group and groups typically have eight weeks to complete the assignment.

The questions set for the assignment are very challenging but given the nature of the subject, and the level the students are at, the answers tend to be relatively objective. Therefore, this increases the risk of plagiarism. After some careful thought, I concluded that a key weakness of the group assessment was that I had no visibility over the process that students went through in developing their final answers. The assessment was predominantly focused on outputs with nearly all the requirements & marks going towards the students’ final answers. I required an assessment deliverable that allowed me to examine the process students went through in developing their final answers so I could rationalise those answers against their development.

**Implementation**

I added a requirement to the assessment whereby groups were required to submit a copy of “minutes of groups meetings held” with their final report. I now had a mechanism to review the process that students went through in their assignment. This allowed me to correlate the assessment answers with the minutes submitted. The wording of the requirement was as follows:

“Include, by way of appendix to your report, a copy of all minutes of meetings held to complete this project. Your minutes should clearly indicate the number of meetings held and who was in attendance. The minutes should include interesting findings, the big issues encountered, and how those issues were dealt with.”

I had very little experience with this type of requirement and I expected my students to be in a similar position. In the interests of equity and fairness, I took what I deem to be a “light” approach in how I marked the requirement. The requirement was only worth 10% of the overall assignment and did not form part of the overall word count (3,000 words). I did not formally indicate to students how often they should meet but I did suggest that they should meeting five to six times over the eight week assignment window.
**Impact**

Each group averaged about five meetings (over the eight week assignment window) and the better groups tended to write at least 300 words for each meeting. Therefore, the requirement added about 1,500 additional words to a 3,000 word assignment. However, the minutes were fast and easy to read through so I definitely did not feel that the requirement increased my marking time too significantly.

Anecdotally, the students reacted well to the requirement. They saw the benefit of a requirement that forced them to meet up and discuss the assignment constantly over the assignment window. They also saw the minutes of the meetings as documented agreements of how workloads had been allocated among their group.

The requirement worked very well as a plagiarism control for the simple reason that it is far more difficult to plagiarise a process than an outcome. The lack of detailed meeting minutes alerted me to be more vigilant for potential plagiarism when reviewing a report, particularly where students had provided good responses that did not seem to match up with their process for developing their answers.

Furthermore, the requirement provided me with an extra dimension with which to justify the marks awarded to each group for their report. For most groups, the quality of the report answers correlated with the quality of the minutes provided. In addition, for situations where a group’s report was between mark bands, the meeting minutes provided me with additional indicator/justification for my final grade decision.

**Reflections**

I am very glad that I gave this requirement a “soft launch” i.e. I did not make it a major part of the assignment. I am always wary of the unintended consequences associated with making changes to assessments and for this reason I generally prefer to make smaller incremental changes to assessments where possible. My wariness proved well founded as two specific issues arose that I had not previously anticipated. Some groups correlated the marks on offer for the requirement (10%) with the word count (3,000 words). I had previously informed the groups that the requirement did not form part of the word count but I should have provided more upfront information on what I expected from the requirement. Also, some students used excellent templates for their meetings, some not so. I should have provided the students with a standardised template as this would have made the minutes easier to write for the students and easier for me to review.

To address the above issues in future versions of this assessment, I plan to make a number of changes. Firstly, I will provide more detailed information on the requirement in the assignment brief (see Appendix 1 for suggested wording). Secondly, I will provide a suggested minutes of meeting template in the assignment brief (see Appendix 1 for suggested layout). Thirdly, I will increase the marks on offer for this requirement from 10% to 25%. I think a 25% marks allocation is a fairer reflection of the effort required. I also think that with a higher marks weighting, students will give more appropriate consideration to the requirement.
Conclusion

Plagiarism issues can severely undermine the learning objectives of group assignments that require the submission of a final group report. I was motivated to reduce the opportunities for plagiarism in my group assignment but I was also eager to find a solution that was as simple and elegant as possible in order to minimise the incremental burden on both myself and my students. A natural evolution of my meeting minutes solution, for example, could be towards the more complex I-maps proposed by Walden & Peacock (2006). However, I believe the main strength of my proposed mechanism lies in its simplicity of implementation and operation. A single all-encompassing solution will never exist for tackling plagiarism. Plagiarism is a multifaceted issue, just like fraud in the business world. Therefore, as with fraud, plagiarism requires a multi-faceted solution. Businesses respond to fraud by implementing an array of individual controls that when combined together, reduce the overall fraud risk. Similarly, I think academics should continue to recognise the value of small, individual plagiarism controls, not just for their single purpose but for their potentially powerful interaction effects with other similar controls.
Appendix 1: Suggestions to academics

I. The specific wording I plan to use in future assignment briefs is as follows:

“Include, by way of appendix to your report, a copy of all minutes of meetings held to complete this project. You should complete all minutes using the template shown below. The minutes should include, in bullet point format, discussions of the big issues you are encountering, the resolutions to any current or previously unresolved issues, and any other interesting findings or points to note in relation to your completion of the assignment.

Over the course of the eight weeks you have for the assignment, it is expected that at a minimum you will meet at least five times. It is also expected that each meeting will have minutes of at least 300 words.”

II. A suggested minutes of meeting template is as follows:

<table>
<thead>
<tr>
<th>Meeting number #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of meeting:</td>
</tr>
<tr>
<td>Duration of meeting:</td>
</tr>
<tr>
<td>Attendees:</td>
</tr>
<tr>
<td>Biggest issues discussed:</td>
</tr>
<tr>
<td>Issues resolved:</td>
</tr>
<tr>
<td>Other interesting findings or points to note:</td>
</tr>
</tbody>
</table>

III. A final point to consider is that it may be more beneficial for the groups to submit their group meeting minutes after each meeting that occurs during the semester, while they are working on the assignment. This could reduce the risk of groups “re-engineering” their minutes before the submission deadline at the end of the semester.
Bibliography

