The Challenges of Using Multimedia Assignments to Assess Learning Outcomes on an Undergraduate Social Media Module

# Abstract

This paper describes the challenges that arose from using a combination of multimedia based assignments to assess the learning outcomes on a Social Media Module. Through a mix of quantitative analysis and qualitative reflection, eight challenges associated with multimedia assessment were identified and considered. Suggestions to address these challenges are presented. Because of the interpretivist nature of the reflection, the findings should not be considered generalizable. Instead, they form a starting point from which deeper scholarly enquiry into the challenges of multimedia assessment can proceed.

Keywords: Assessment, multimedia, learning

# Introduction

The change from “assessment of learning” to “assessment for learning” ([Martinez & Lipson, 1989](#_ENREF_2)) has revolutionised the conceptual framework for assessment ([Schuwirth & Van der Vleuten, 2011](#_ENREF_3)). Assessment for learning is embedded in the education process and seeks to foster learning to the maximum of the students’ capacity, rather than simple demonstrate acceptable competence. This requires a move away from exam-based approaches to the continuous assessment of information-rich theoretical and practical assignments. However, despite the move towards greater use of multimedia in the teaching process, there is scant literature that exams the use of multimedia in the assessment process.

A multimedia approach was used to assess an undergraduate module “Social Media”. Because the assessment is embedded in the learning, the assessments were designed to closely reflect the practical aspects of the course and students has to design and create social media artefacts that demonstrated their learning. While, both I, the lecturer, and the students found the assignments an effective and rewarding way to assess learning outcomes, a number of practical and pedagogical challenges arose.

This paper reflects on those challenges. First, a brief introduction to the module is presented where the module and its assessment are described. The process of reflection and the challenges that arose from the assessment strategy are then presented. The advantages from a student perspective are presented, and conclusions and avenues for future research are discussed.

# “Social Media” Module

The undergraduate “Social Media” is designed to prepare students for

a digitally connected world, where it is becoming increasingly important that social media and social networking skills are integrated into our business and marketing programmes.

The module equips students with the skills to target audiences and select platforms in order to communicate effectively through social media either on their own behalf or for an organisation. It also seeks to provide the students with a critical understanding of both the advantages and challenges of social media from a personal perspective. The module is designed for final year undergraduate students. However, consistent with the university’s liberal educational ethos, the module assumes no prior learnings and is open to, *inter alia,* Business, Arts, Accounting and Law students. The module is worth five ECTs and consists of 24 direct contact hours, delivered through participative lectures, and 100 hours of self-directed learnings, where students prepare for in-class MCQs and complete practical group and individual assignments (see Table 1). There is no end of semester exam.

Table Assessment Strategy and Learning Outcomes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Learning Outcome | MCQ | Blog | Essay | Multi-media video | Audio reflection |
| Demonstrate an understanding of the advantages and disadvantages associated with social media. | ✓ |  |  |  | ✓ |
| Recognise the implications of social media for organisations and consumers. | ✓ | ✓ | ✓ | ✓ | ✓ |
| Critically evaluate the specificity of the different social media and their role in a polymedia environment |  |  | ✓ | ✓ |  |
| Disseminate news and information on a number of platforms that builds a conversation, promotes trust and creates advocates for an organisation. |  | ✓ |  | ✓ |  |
| Recognise the importance of evaluation and develop a set of appropriate criteria for assessing the various user practices and value to an organisation. | ✓ |  | ✓ | ✓ | ✓ |
| Demonstrate comprehensively how social media can have an impact not only on company and brand awareness but also on conversions. |  |  | ✓ | ✓ | ✓ |

## Assessments

40% of the marks were awarded for multimedia deliverables. The remaining 60% was based on in-class MCQs and an essay.

## Blogs (20%)

As an individual assignment, students had to create a set of 5 blogs on any theme of their choice. The blog entries may broach any topic. However, an overall level of professionalism must be upheld in all posts. Students can choose any blogging platform of their choice. However, they were encouraged to consider enriching their blogs with multimedia content such as videos.

## Multimedia Online Presentation (10%)

In groups of five, students had to create a five-minute online video summarising a social media marketing plan they created as part of a written assignment. A range of platforms was recommended to the students, including, PechaKucha, PowToon, Microsoft expression encoder, Camtasia, and PowerPoint with narration.

## Personal Reflection (10%)

Each student had to prepare a 5-minute audio file that reflects on what they learned by completing the module. It could touch on technical learnings, issues around group work, the challenges of social media, or whatever the student felt was relevant.

# Review of Assessment Strategy

The effectiveness of the assessments was reviewed as follows. Firstly, I conducted a quantitative analysis of the results (See Table 2). Secondly, three discussion sessions were held with different groups of colleagues where the method of assessment was examined. Thirdly, I reviewed the individual audio student reflections. Fourthly, I considered the official student feedback on the previous deliverable of the module and peer review data from this year.

Table Data on Marks

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Statistic | MCQ | Essay | Presentation | Reflection | Blogs | Weighted Total |
| Mean | 56.62 | 63.12 | 62.52 | 59.61 | 64.29 | 60.35 |
| Mode | 60.00 | 62.00 | 65.00 | 70.00 | 68.50 | 63.00 |
| Max | 83.33 | 78.00 | 75.00 | 80.00 | 78.50 | 75.00 |
| Min | 26.67 | 52.00 | 40.00 | 0.00 | 0.10 | 36.00 |
| Standard Dev | 12.33 | 6.82 | 7.04 | 17.81 | 10.85 | 7.26 |

# Challenges

This section describes the challenges I faced and finishes with a summary of suggestions as to how they might be addressed.

## Distribution of Marks

Figure 1 shows the distribution of marks for the different assessments (N=158). From this, it can be seen that all methods of assessment produced a reasonable distribution of results. The random assignment of groups partially explains the lower spread on group assignments. However, the much greater distribution of marks on the audio reflections than the blogs suggests that I struggled to differentiate different levels of quality in visually rich multimedia assignments compared with the audio assignment. This suggest that that multimedia assignments may be harder to mark.

Figure Distribution of Marks

## Risk of gender bias

One concern that arose from the quantitative and qualitative analysis is that this method of assignment may discriminate against female students. The audio reflections provided evidence to suggest that in mixed gender groups, male students were more likely than female students to take responsibility for completing the multimedia part, whereas female students were more likely to take ownership of the essay.

## Balance the Rewards for Technical and Critical Skills

One the hardest aspects of grading a multimedia assessment is to separate the technical and learning outcomes. An extremely technically proficient video may be extremely light in content, whereas a technically weak artefact may contain evidence of a highly advanced level of critical thinking. An additional problem arose because some platforms may look more professional than others. For example, a narrated animation on PowToon may prove a more effective platform to communicate a plan to a creative business. However, I had to ensure that appropriate marks are regarded for the quality of analysis and not just “shiny” features.

## The Free Rider

From the peer review data and the audio reflections, it was clear that not all the groups were satisfied that everyone contributed equally. 20% of groups reported issues where one or more students did not contribute appropriately. Also from the audio reflection, it was clear that in many groups, one student took ownership of the multimedia assignment and completed it on their own. While it is up to groups to police how work is divided, this means that some students may miss out on the technical learnings.

## IT-Mediated Communications

According to the reflections, many groups relied solely on the social media platforms they were learning about to communicate with each other. While these groups reported a high level of cohesion and satisfaction, their results were often lower than that of groups that met in person and overcame the challenges of group formation to work effectively.

## Student Confidence

One issue that differentiated between different students was the confidence and clarity with which they narrated their multimedia presentation. In general, students spoke clearly, however, many of the students who appeared on screen came across nervous, whereas, those that narrated over animation or slides spoke fluently. This suggests that a multimedia assignment is not an effective means of preparing students to make presentations to a live audience.

## Technical and Legal Challenges.

My university uses Moodle as its teaching support tool. There was a 40 MB limit on file uploads. Some students struggled with this. Other students avoided this problem by hosting their videos on YouTube or other video sharing sites. However, this meant I had to download them in order to ensure a record existed for the external examiner, or in case of appeal. The sharing of videos on social media also raises the risk to the university that students may say something inappropriate about a business.

## Scalability

Finally, it is necessary to consider the high level of support that multimedia assignments require from students. This is especially true under the liberal education model where no prerequisite skills are required. Many students have chosen business modules and have little interest in technical skills. These students may struggle with technical aspects and generate a huge number of queries that I needed to be able to address. Furthermore, there are no shortcuts in correcting multimedia assignments. I spent over 3 weeks reviewing and grading assignments for this module. With a larger class size, this may not be feasible.

The challenges identified above and potential solutions to them are summarised in Table 3.

Table Challenges and Potential Solutions

|  |  |
| --- | --- |
| Challenge | Potential Solution |
| Appropriate Distribution of Marks | An effective rubric is required that clearly differentiates between different aspects of the deliverable is required |
| Risk of Gender Bias | The assignments should be blind marked. Furthermore, support should be available to groups that may not have prior technical skills and students should be encouraged to co-operate on all aspects of the assignment. |
| Balance of Marks for Technical and Critical Skills | The rubric should be available to students in advance to prevent them becoming overly focused on individual aspects of the assignment. |
| Free Rider | Students are invited to complete a peer review form that allows the lecturer reward those who contribute most and discuss group cohesion in the individual reflection |
| IT-mediated communications | Students are encouraged to meet in person early in the project, and the dangers of over-reliance on digital communication are highlighted |
| Student Confidence | It is important that multimedia presentations are used together with as opposed to instead of in-class presentations |
| Technical Challenges | The lecturer must check the technical capabilities of the university infrastructure before proceeding. If they lack the necessary skills, they should consider a joint module with a lecturer who has the skills. Students are advised to make their videos private and submit them through Moodle |
| Scalability | The lecturer must consider their own bandwidth and that of the IT infrastructure before commencing. The length of the videos and reflections could be reduced by 50% |

# Student experience

At the time of writing this article, the official student evaluation feedback was unavailable for the year this article relates to. However, based on a similar offering in previous years, the data suggests the student experience was more positive on the module assessed by continuous multimedia assessment than on other modules delivered by the author. This is supported by the audio reflections which painted an overwhelmingly positive picture of the student experience. Students enjoyed getting to grips with new technology, the opportunity to be creative, and the creation of entertaining aesthetically pleasing artefacts that they could be proud of.

# Conclusions

The above reflection suggests that there are both positive and negative aspects to the use of multimedia assignments in assessing learning outcomes. While I feel they are effective, the challenges are not to be underestimated, and such an approach requires a high level of technical skill and time to support the students. The marking of such assignments is particularly difficult, and I am concerned that the assignments themselves may reinforce gender issues that already exist within the subject domain area.

This study has a number of limitations. While there is some reliance on qualitative data, it takes a fundamentally interpretivist approach, and the reflections arising from the lecturers own understanding of the world and as such are subject to bias. This means the challenges associated with this means of assessment is, by no means, exhaustive. Indeed, this article is based on a single module of 158 students, which may be too small even to support *induction by simple enumeration*, let alone statistical generalisation ([Cohen, 1972](#_ENREF_1)). Finally, this paper would benefit from a more rigorous grounding in pedagogical theory. Instead, it is presented more of an experience report than a contribution to theory.

Despite its limitations, the article is interesting as it investigates an area of pedagogy that is understudied. This paper identifies some interesting areas for further research for both quantitative and qualitative researchers.

# Acknowledgements

The author would like to acknowledge the contribution of his colleagues who participated in the discussions, and also the students of this module whose creativity and passion made the teaching of this module so enjoyable.

# References

Cohen, L. J. (1972). The Implications of Induction. *Philosophy of Science, 39*(4), 566-567.

Martinez, M. E., & Lipson, J. I. (1989). Assessment for Learning. *Educational Leadership, 46*(7), 73-75.

Schuwirth, L. W. T., & Van der Vleuten, C. P. M. (2011). Programmatic Assessment: From Assessment of Learning to Assessment for Learning. *Medical Lecturer, 33*(6), 478-485.