
CASE STUDY 10

A Scaffolded Approach to Teaching Design and Design Techniques to Reluctant Designers

Discipline: Psychology
Student Numbers: 61



Gráinne Carroll

Goal/Objective

As part of fulfilment of a Certificate in Universal Design for Learning (UDL) in IADT I was required to redesign a module with specific emphasis on students with Autistic Spectrum Disorders (ASD). This felt like an ideal opportunity to utilise the structured scaffolded approach recommended when working with students with ASD and applying it to the general student population. Any student could struggle with the technical and creative skills required in the module and it was hoped that this would create a more inclusive environment.

There were several potential issues that could cause accessibility issues.

- Access to course material on the Virtual Learning Environment (VLE) Blackboard. There was insufficient information on the general course structure and related documents.
- Content was revealed to the students on the day of the class rather than in advance. Advance notice is essential not only for students with ASD but for those who are uncomfortable with the material and want advance preparation.
- Material available to students was varied. While there was multiple mean of representation (CAST, 2018) in some areas, it lacked consistency.
- Classes primarily consisted of lectures in parallel with demonstrations. The students then had to carry out related activities in class. This approach can be quite inaccessible for people who struggle with verbal instruction, and maintaining concentration for extended periods of time.
- The assessment structure was also problematic as it required significant organisational skills including research, planning, and time management.

The objectives therefore were:

- To create a more scaffolded approach towards the delivery of the module from course content to in-class tasks and project development.
- To enhance communication between the lecturer and students by providing timely feedback and encouragement.
- To provide greater transparency in the delivery of the module and in the module assessment and feedback.

Description

Multimedia Design is a 10 Credit Module on the Applied Psychology Degree. It is a little unusual in the sense that the students would generally consider their primary interest Psychology. Many are reluctant designers and claim to be technically incapable. More often than not they prove themselves wrong year on year, but it is important that the students are not overwhelmed initially and receive frequent and positive feedback. For the purpose of brevity one continuous assessment is covered in this case study, it normally consists of two continuous assessments and an exam.

The module is largely practical where concepts and techniques are demonstrated or discussed in class and students carry out in-class activities based on these. Also, as many students do not have the necessary software at home, time is allocated in class for students to work on their continuous assessments and receive individual guidance from the lecturer and classmates.

Communication is important for the classroom dynamic particularly in a creative subject. The students need a vehicle where they can provide and receive feedback readily. A number of tools were considered for this task. The VLE (Blackboard) was briefly considered; however, it had several drawbacks. The blog facility is very basic with no option to upload images and when there are updates, changes or comments there is no notification to users. Journals are also not feasible as only the user and instructor can view the contents and they do not sit comfortably with visually heavy content.

A leading Social Media Environment was chosen as the communication tool for this module; however, this is very much open to the lecturer. It was important that the tool used was free and readily available and had the option of closed groups, where only students who receive invites can participate. It was also essential that students could easily upload images, weblinks, videos and add comments. A search facility is also important so that individual submissions can easily be monitored.

This closed group was introduced at the start of the year and became the go to point for all class communication in relation to the module. It was also used as an interface where after each class the students uploaded the work completed in class. Rather than working in isolation this provided the students with an opportunity to see and comment on or like different students' work and for the lecturer to monitor the individual student's progress. As an added incentive the students are allocated a small percentage for in-class submissions.

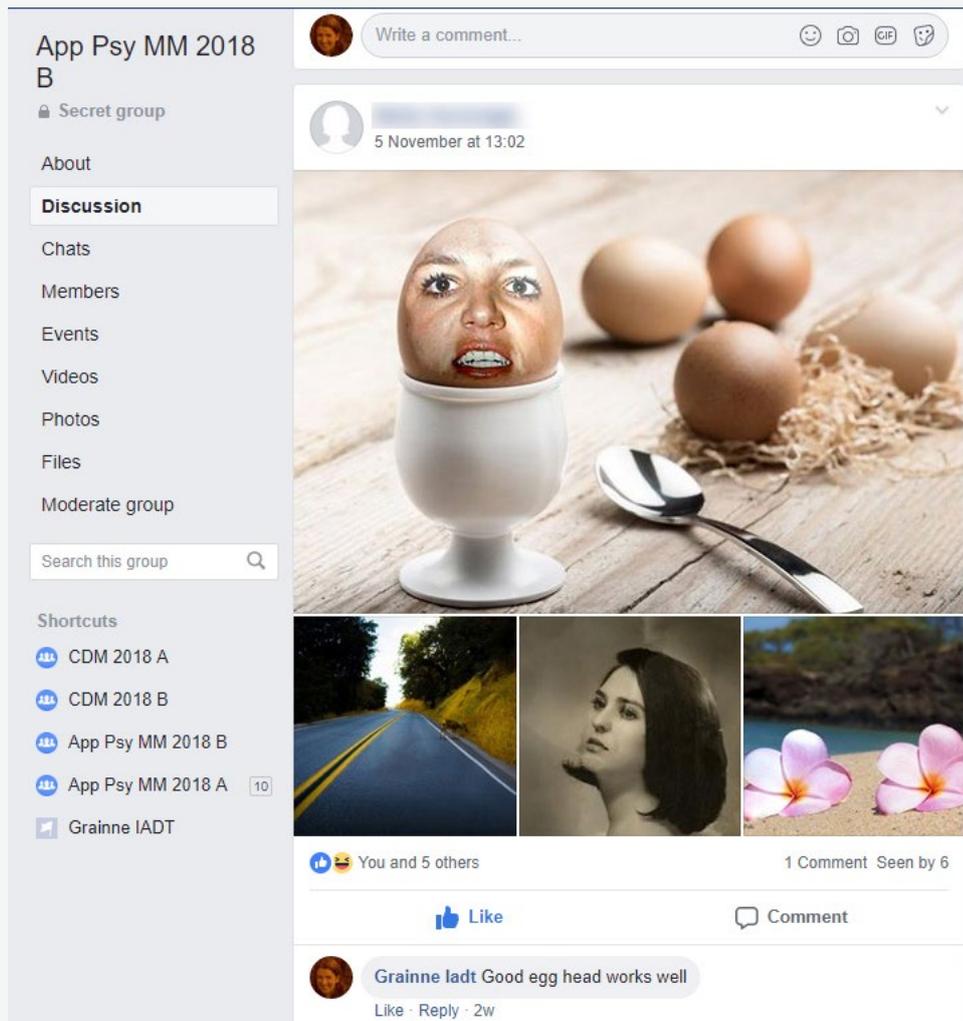


Figure 1: Closed Group Lecture Feedback

Multiple means of representation (CAST, 2018) was carefully considered when it came to how the course was structured. Clarity is essential and can be particularly important for people with ASD.

With this in mind all content on Blackboard was completely redesigned to allow for greater clarity and ease of access.

- All course documentation where possible was provided from the outset.
- A module document was created to provide all essential information relating to the module including a course overview, module aims, learning outcomes, learning and teaching strategies and expected work that would be carried out throughout the year.

- The module document also provided details on all continuous assessments as well as a supporting rubric, a Project Schedule and Report Planner that would provide the student with greater structure.
- Work by students from previous years was also made available for students to review.
- Class presentations and notes were provided as PowerPoints rather than PDFs.
- Videos were made available as an alternative for students who struggle with verbal instruction and maintaining focus.

Multiple Means of Action and Expression (CAST, 2018) is key when it comes to classroom delivery to encourage deeper understanding. Aspects to be reviewed included how the classes were structured and presented, an awareness of the sensory environment, dealing with group work, and when assigning tasks ensuring that they were clear, easy to follow and also provided choice.

All of the above encourages deeper learning but to reach mastery more needs to be done and this is where Multiple Means of Engagement (CAST, 2018) can play a role. The assessment method needed careful consideration, particularly for students with ASD who may struggle with time management and planning.

A scaffolded approach was developed to ensure the students delivered projects on time and successfully met the learning outcomes.

- Students were provided with details of all continuous assessments and marking rubrics at the start of the year.
- Sample work of students from previous years was also made available.
- Choice was provided in the subject matter for each assessment.

This is also where task analysis becomes really important.

- A Project Schedule was introduced (see Appendix A) which broke the project up into clear stages and indicated targeted deliveries.
- A Report Planner was also provided (see Appendix B) outlining what should be covered in the report.
- The students were also required to write the report using Adobe Spark (see Figure 2), a cloud based, simple to use, online web page builder that required little to no instruction.

- In addition, to ensure the students were staying on schedule they were asked to publish their journal weekly to the closed group. This had a number of benefits, not only was it possible to monitor the individual student's progress but each student was also able to view and comment on the reports (figure 3) inspiring them but also motivating them, particularly those who may have been slow to start or have fallen behind.

The report is a particularly important part of the continuous assessment as it shows the reflective practice of the students and general evolution of the project.

Every effort was made to ensure transparency in the assessment process and that it was valid, reliable and effective. Making the assessment rubric available to students helped with this (See Appendix C).

Workload on providing feedback for this module has always been considerable so it was decided to introduce a tick box approach to reduce repetition in writing, and to provide a small amount of individual written feedback at the end.

A peer review was also introduced where three students, working with the same rubric as the lecturer, provided their own assessment of one student's work. This helped the students' understanding of the validity of the assessment process as well as providing a more considered review to assist the lecturer.

Results

This is the first year of implementing these changes in the module but already there is a noticeable improvement in the overall student work rate and quality of delivery.

Based on feedback from the students there were a number of contributing factors.

As a result of the Project Schedule provided many students comfortably planned, executed and delivered the projects on time:

'Helped me keep on top of the workload week to week rather than letting it all build-up'

Figure 2: Spark Journal posted on closed group with Lecture comment

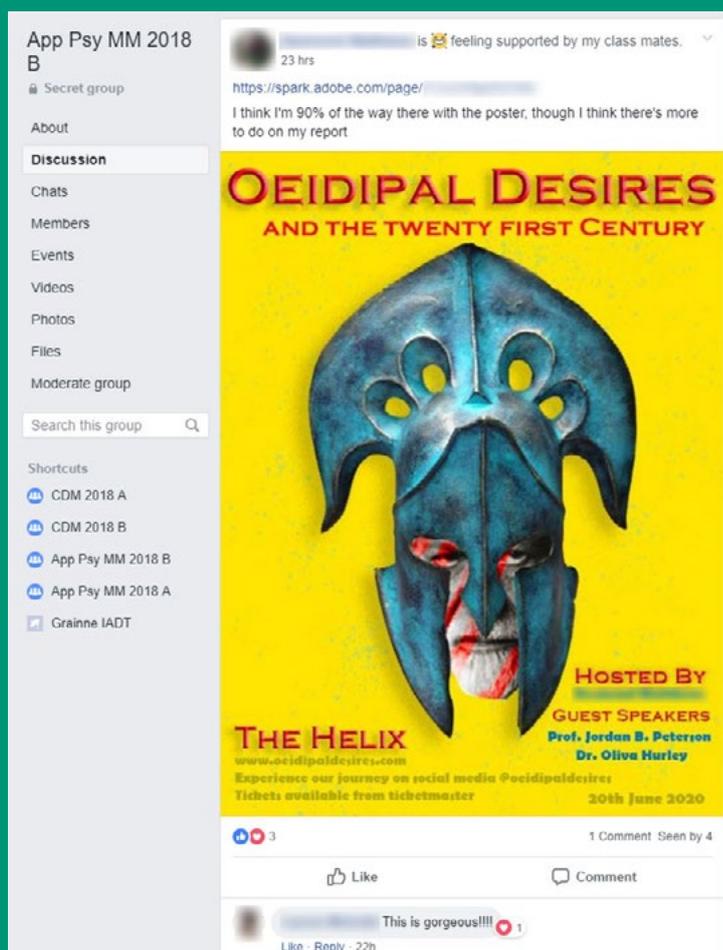
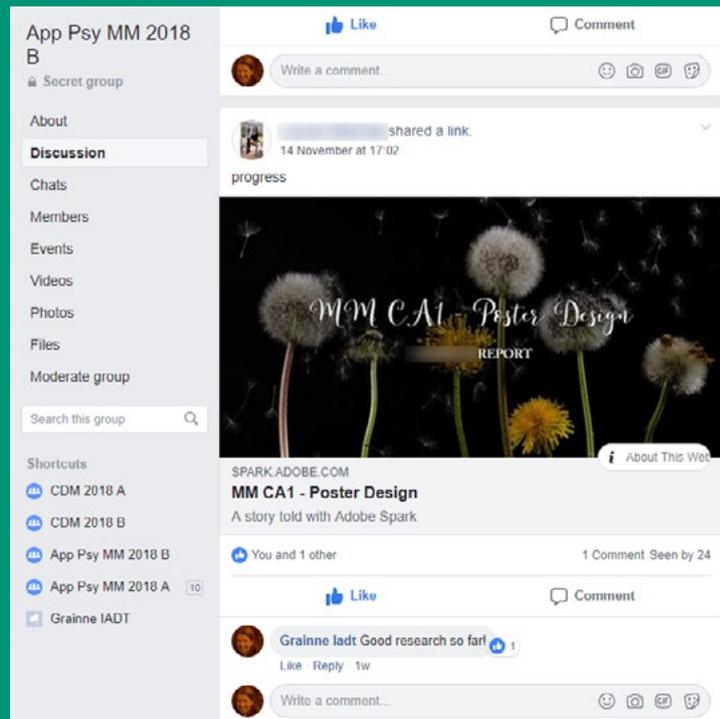


Figure 3: Student feedback on project (CA)

The Report Planner document was also of benefit and this was particularly evident in the Spark Reports with excellent evidence of research and project evolution:

‘It helped knowing where my focus and attention should be directed’

Both the Project Schedule and Report Planner are decidedly low tech but there is the option in future classes of utilising online calendar facilities as well as apps which may also prove effective in the area of project planning and student motivation.

Using a cloud based website approach like Spark produced reports of tremendous visual depth. In general, it proved easier to add content as you worked rather than retrospectively which would be the case with something like Microsoft Word. It was also instant and content was accessible to all from the start. As a tool however the Spark Journal had some limitations, particularly in terms of flexibility in layout. An alternative tool with perhaps greater flexibility but a slightly increased learning curve could be Google Sites. One student commented:

‘It was a fun and useful way to my organise ideas and visualise the final concept for the continuous assessment.’

From an assessment perspective the peer review proved helpful but time consuming to collate, a more streamlined approach using Blackboard peer assessment facility or even Google forms may be an option here. It was noted:

‘I liked doing the peer feedback as it clarified things on my own project that I didn’t do so well, it also showed the areas I was very successful at.’

The standard of work produced by the students has taken a noticeable leap in comparison to previous years and the overall communication and classroom dynamic has significantly improved.

One disadvantage of the new approach is the need for greater input on the lecturer’s part outside the classroom particularly on the closed group. However, the positives outweigh the negatives as a rapid assessment of the student’s general performance can be made simply by a quick search for a specific student and all their in-class contributions are immediately visible.

Student opinion is in general positive although there are reservations:

'it is good to see everyone's work but not efficient in the sense that older posts get lost when the newer posts are added'

In future a project communication tool like Slack may be considered as it has greater visibility and ease of control. It has also greater project management options particularly if group work is involved. Slack is also frequently used in industry which may hold greater long-term relevance for the students.

Recommendations and Reflections

Module design is an on-going process, what has been outlined here continues to be reviewed and will no doubt change again in the future.

- A number of tools and approaches have been proposed in this case study. It may not be necessary to use all.
- Never assume anything and reflect on all aspects of your module from VLE presence, in class approach, and assessment practice.
- As is evident in the results section there is an element of trial and error when attempting to implement beneficial change, therefore frequent reassessment is essential.
- Consider aspects that currently cause confusion or frequent questions, can these be reduced/streamlined, is greater guidance needed and how can this be established?
- Create an online group, or similar, to establish a standard means of in-class communication.
- Encourage student contributions by actively contributing on the group, responding and commenting regularly.
- Remember a sense of humour is always beneficial.
- Student feedback is key, ask their opinion regularly and modify accordingly.

References and Resources

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Appendix A

Project Schedule

Week	Deliverable
Week 1	<p>Start Report Adobe Spark Journal</p> <p>Choose your topic and finalise text that will go on the poster.</p> <p>Research relevant posters and design inspiration.</p> <p>Compile screenshots of posters/ designs and highlight/ indicate areas of interest</p> <p>Consider typography and font choice keep a record of typography and font choices of interest</p> <p>Publish journal progress on closed group</p>
Week 2	<p>Commence sketches of poster ideas.</p> <p>There should be a minimum of three ideas</p> <p>Ensure that all three are different solutions.</p> <p>Publish journal progress on closed group</p>
Week 3	<p>Explore design ideas in Photoshop.</p> <p>Attempt all three if necessary to see which design is most successful.</p> <p>Remember to use techniques learned in class.</p> <p>Naming layers and organising folders.</p> <p>Publish journal progress on closed group</p>
Week 4	<p>Refine poster solution. Pay particular attention to typography, balance, colour treatment and general attention to detail</p> <p>Record project development in report</p> <p>Publish journal progress on closed group</p>
Week 5	<p>Finalise website ensure all layers are properly titled and organised</p> <p>Complete report</p> <p>Submit CA on Blackboard.</p> <p>Ensure all content is zipped in a folder with your name on it.</p> <p>Publish journal progress on closed group</p>

Appendix B

Report Planner

Section	Details	Word count
Introduction	<p>Overview of Project</p> <p>Reference posters, visuals etc. that were relevant to your research, ideas/sources of inspiration. Include screen shots/ jpegs of features/styling that were of particular interest.</p> <p>Include all sketches of three ideas.</p> <p>Discuss your preferred approached identifying key features you wish to highlight e.g. typography graphic style, theme, colours etc.</p>	No min word count. Use images where necessary
Description	<p>Outline project development. Give details in relation to:</p> <ul style="list-style-type: none">— Layout approach— Typographic choice and treatment— Graphic styling— Overall design look and feel	No min word count. Use images where necessary
Techniques	<p>Outline Photoshop techniques used including:</p> <ul style="list-style-type: none">— Adjustment layer styles— Layer styles— Masking— Clipping masks— Blend modes etc.	No min word count. Use images where necessary
Reflection/conclusion	<p>Critically reflect on your project.</p> <p>Are you happy with the finished product? Are there aspects that you would change? What did you find difficult/challenging?</p>	No min word count. Use images where necessary

Appendix C

CA Rubric

Excellent / Above Average + Excellent / Very Good (100-70) Alpha; A/B+ GPV 4.0 / 3.5	Above Average Good (69-60) Alpha; B GPV 3.0	Average + Satisfactory / Fair (59-50) Alpha; B-/C+ GPV 2.75 / 2.5	Average- Pass (49-40) Alpha; C GPV 2.0	Weak/ Unsatisfactory Poor / Fail (39-0) Alpha; D/F GPV 1.5 / 0
Visual Research – Report & Supporting Material				
A/B+	B	B-/C+	C	D/F
<p>Excellent report demonstrates an obvious developmental process as well as an awareness and understanding of contemporary design practice for poster design and print media in general. <input type="checkbox"/></p> <p>Very well written and clearly structured. <input type="checkbox"/></p> <p>Very good evidence of research carried out in relation to sources of inspiration, stylistic approaches, sketches and thumbnails. <input type="checkbox"/></p> <p>Numerous examples provided. <input type="checkbox"/></p>	<p>Good report clearly written. Shows evidence of developmental process as well as some awareness and understanding of contemporary design practice for poster design and print media in general. <input type="checkbox"/></p> <p>Good evidence of research carried out in relation to sources of inspiration, stylistic approaches, sketches and thumbnails. <input type="checkbox"/></p> <p>Some examples provided. <input type="checkbox"/></p>	<p>Adequate report content not presented clearly. <input type="checkbox"/></p> <p>Some supporting material information does not seem to fit the main approach appears as a disconnected series of random visuals. <input type="checkbox"/></p>	<p>A minimal report with limited indication of research. <input type="checkbox"/></p> <p>Little or no accompanying examples. <input type="checkbox"/></p>	<p>No report submitted. <input type="checkbox"/></p>

Design Treatment				
A/B+	B	B-/C+	C	D/F
Excellent creative design solution. <input type="checkbox"/>	Good design solution. <input type="checkbox"/>	Adequate design solution. <input type="checkbox"/>	Very little evidence of design direction. <input type="checkbox"/>	The student was not engaged with investigating an appropriate design solution. <input type="checkbox"/>
Very good awareness of design principles contrast, repetition, alignment, proximity, visual balance. <input type="checkbox"/>	A good awareness of design principles contrast, repetition, alignment, proximity, visual balance. <input type="checkbox"/>	Inconsistent approach to design. <input type="checkbox"/>	Design poorly executed. <input type="checkbox"/>	Inadequate awareness of content design treatment. <input type="checkbox"/>
Effective consistent use of typography and legibility. <input type="checkbox"/>	Good approach to typography and legibility. <input type="checkbox"/>	Limited evidence of design principles and overall balance. <input type="checkbox"/>	Poor or limited demonstration of design principles. <input type="checkbox"/>	
Design executed to a very high level with excellent attention to detail. <input type="checkbox"/>	Design executed to a good level with evidence of attention to detail. <input type="checkbox"/>	The development of the idea was adequate but lacks attention to detail. <input type="checkbox"/>	Inadequate realisation of visual ideas. <input type="checkbox"/>	

Technical Proficiency				
A/B+	B	B-/C+	C	D/F
Excellent and perceptive handling and development of all media and processes. <input type="checkbox"/>	Demonstrate a good ability to use Photoshop effectively. <input type="checkbox"/>	Shows adequate ability to use Photoshop effectively. <input type="checkbox"/>	Demonstrates a basic handling of appropriate media and materials. <input type="checkbox"/>	Little more than a basic ability to employ skills in a meaningful way. <input type="checkbox"/>
Demonstrate an excellent ability to use Photoshop proficiently. Logical organised files evident. <input type="checkbox"/>	Photoshop file organised for the most part. <input type="checkbox"/>	Photoshop partially organised. <input type="checkbox"/>	Photoshop not organised. <input type="checkbox"/>	Insufficient evidence of skills and experimentation. <input type="checkbox"/>
Utilised advanced non-destructive techniques including masks, adjustments layers, various methods for stylistic treatments etc. <input type="checkbox"/>	Some advanced techniques utilised. <input type="checkbox"/>	Limited use of skills and experimentation. <input type="checkbox"/>	Lacking evidence of skills and experimentation. <input type="checkbox"/>	
Excellent use of skills and experimentation. <input type="checkbox"/>	Effective use of skills and experimentation. <input type="checkbox"/>			

Supporting Material (In class tasks)

A/B+	B	B-/C+	C	D/F
All in class material submitted. <input type="checkbox"/>	80% of in class material submitted. <input type="checkbox"/>	50% of in class tasks submitted. <input type="checkbox"/>	Small number of in class tasks submitted <input type="checkbox"/>	Little or no in class tasks submitted <input type="checkbox"/>

Total Grade

Additional Comments

