**Pedagogic Research Institute & Observatory / Plymouth University Teaching Fellowship Scheme**

**The Pedagogy of Pressure – Book/Comic-Book design project**

**Project Team: Tom Barwick & Dean Owens**

**Background:**

The concept of the 24hr comic book was conceived in 1990 when comic theorist Scott McCloud challenged Illustrator Steve Bisette to create a 24 page comic book alone over 24 hours. The work Bisette made was documented in the comic *Cerberus* and the concept began to gain momentum within the comic book community in the USA. On April 24th 2004, the first group event took place in comic book stores across North America, successfully fostering the creation of thousands of pages of comics and by 2007 24hr comic book events were taking place in 18 countries, involving over 1,200 artists.

In May 2011 Plymouth University supported Tom Barwick’s participation in a 24hr Comic Book project at the Eden Project, the experience encouraged him to organize a similar event in collaboration with Peninsula Arts at Plymouth University, this event ‘The Leviathan’ took place on the 19th Sept 2012 and was judged to be a real success by the illustration team, leading to a further event in Oct 2013 at Plymouth Museum and Art Gallery devised by BA Illustration course leader Ashley Potter, in which the 24 hours were split into two twelve hour sessions.

Researchers Tom Barwick and Dean Owens noted after both of these events that all of the students who took part, showed a greater level of confidence and created a larger and more comprehensive body of work, than in their normal day-to-day studio activities. The level of productivity was incredible, students were producing work that would of taken six weeks of studio time in a fraction of the time, and the standard of ideas and image making was of almost the same level of professional finish.

Preparation for professional life inherently involves ‘pedagogies of uncertainty’ (Shulman 2005), given that professional environments require not only epistemological grounding in the form of expert knowledge, but also ontologically informed and cognitively creative responses to unknown demands and social situations. In the professional illustration workplace, practitioners are required to have the knowledge and capacity to produce creative responses to client demands under conditions of, often acute, time pressure and as part of a collaborative team. While the need to prepare students holistically for such vocational demands is largely accepted in higher education through an increasing prioritisation of ‘employability’, very little is known about pedagogic practices which can effectively pursue these outcomes, particularly in illustration, where group work and intense time pressure are common in combination.

**Research Goal:**

Initially both researchers did not see the significance of this extra curricular experience beyond the obvious benefit to the individual student. The team’s initial research goal grew slowly from here, forming a clear objective, to try and re-create this type of experience for the whole group in a studio practice module. Wanting to find out if working under pressure does advance student learning, in terms of self-belief, productivity and professionalism.

Higher Education design has become increasingly focussed upon improving pedagogic approaches to ensure effective teacher-student engagements and on preparing students for professional life with a clear focus on employability. Performance and practice in HE at levels 4 through to 6 requires students to engage with team and organisational working SEEC (2010) but there is limited pedagogic material available on pressure and team work, particularly in relation to Art & Design, we felt there would be broad value to the course as a whole in gaining insights into how to successfully design and deliver this type of peer-to-peer time pressured group project. In addition we were encouraged by evidence we had gathered through teaching the project, in written tutorial documentation, PAP (personal assessment profile) forms and through tutor assessment of students progress demonstrated high levels of achievement through group work.

 Arts-based disciplines have a particular position in these debates owing to their established and necessary focus on ‘experiential learning’ Kolb (1984) and ‘self-directed learning’, which is socially constructed, Knowles, M. (1975)

 To provide the ‘pressure’ needed to research its effects, we recreated this experience in a learning context devising a project to run within a 30-credit level 5 module1.making up 15 credits of that module.

Much more is known about the impacts of group work than time pressure in various disciplines in higher education (Cresswell, 1998), with particular emphasis placed on the accumulation of cognitive educational benefits (Gregory and Thorley, 1994). This literature emphasises both the manner and extent of peer-to-peer learning (Boud, 2001) which takes place under conditions of student group work, as well as the practical and transferrable skills conferred (Livingstone and Lynch 2000).This is despite the identification of apparently ‘mythical’ objections (Livingstone and Lynch 2000) to group learning processes from academics and students alike, denied by empirical evidence, which rather supports group learning as highly effective in producing educational outcomes.

While high levels of student satisfaction have been identified with group work (Gatfield, 1999), there is little research on what happens when group work is combined with acute time pressure – notwithstanding the fact that almost all academic work is associated with deadlines of some kind.

**DEADLINES: The broad relevance of the research**

The creative industries also operate within time sensitive frameworks and that the pressure is linked directly to time constraints. Illustration forms a part of the creative industries, there is no sector that would not use an illustrator an element of their overall creative team in film, television, fashion, packaging, publishing, game design. The common link is that they all work to deadlines. An illustrator’s professional reputation relies to a large extent on their ability to undertake a creative process under time pressure and to hit a deadline on time while working in a group. And so, despite the strong comic book focus of the project we ran for this research, the skill-set we are aiming to develop is valuable right across the creative industries Ball, L, Pollard, E, Stanley, N and Oakley, J,(2010) “I think in a way the industry, the way the industry works, it is very much like that because you have a strict deadline and you have to deliver” (FG1)

Although all level 5 students were taking part in the ‘Comic Book Project’ as part of their module, the participants in the research were taken from a group of volunteer students. The requirement from the volunteers was to take part in two focus groups.

We took apart the 24hr structure from an ethical perspective, initially focusing on the issue of forcing students to work non-stop for 24hrs. Under less than ideal conditions, group work can become the vehicle for acrimony, conflict and freeloading, it may impose a host of unexpected stresses on, for example students with overcrowded schedules living long distances from University (McInnis and Devlin 2002).

Great attention is paid in the literature on group-work in higher education to the issue of ‘free-riders’ or ‘passengers’ in the form of non, or under-contributing student team members. ‘Individual students were motivated not to let the team down.’(Garvin, Butcher et al. 1995:282).Research shows that students can waste a lot of time discussing strategies for handling ‘free-riders’ (Kayes and Kolb, 2005) which may be particularly problematic under conditions of acute time pressure.

**Method**

The project was structured to have two 12-hour sessions, set two days apart, to lessen the physical time pressure so it was not a continuous 24hr session. A typical 24hr event will be made up of a large group of individual artists all working in one room in a group. In this structure an individual student is free to set her own pace, not having to consider or rely upon other group members but they are also faced with the full force of all the stresses and pressures that come with a project of this type. To lessen these pressures we adopted a group work strategy creating thirteen groups of three students.

As we did so, we observed, another layer of development taking place through this re-structuring, we were moving closer to a structure that more closely reflected industry experience across the majority of professional roles that the illustrator might inhabit. Where a typical working day on a tight deadline would be twelve hours and it’s common for illustrators to form a part of a larger team of creative people. Kretschmer, M, Singh, S, Bently, L and Cooper, E, (2011).

Through this process we now had a structure that was based on a professional set of parameters, which accepted that while time pressure is commonly associated with stress and constraints to cognitive processes, it should also be acknowledged that filling time with beneficial activities, and the challenge of a pressured environment, can produce advantageous results. (Amabile, T. J., et al. 2002). With this structure we could also take into consideration the student’s wellbeing and potential learning, while still keeping the measurable fixed time-frame elements from the 24hr starting point.

The research team developed two questionnaires, the first one before the event was written to try and assess the students feelings about pressure prior to undertaking the project as well as asking for their previous knowledge and experience on how they might deal with stress, time pressures and group-work. We employed a grounded theory approach Glaser, B. & Strauss, A. (1967)were themes and questions that came out of the questionnaires were used to form the questions in the two focus groups. The groups were formed of five members from five distinct teams, the focus groups took place at the start and end of the project with questionnaires being sent out to the whole cohort prior to each group session.

**FINDINGS**

The initial aim of this research was to look at how time pressure affected the students learning, confidence and to find out what the students opinion is of this type of delivery. Through the data analysis, a greater emphasis has been identified with the differing types of pressure that the student has found herself under AND how these pressures have positively or negatively affected their learning during this project.

This has led us to look more closely at writing about group work, the findings have been categorised in accordance to the theories of Schwarz (2002) Who cites 4 key stages to facilitating “The Thinking Group”, these are, *valid information, free and informed choice, internal commitment* and *compassion.*

Broadly the two sets of survey questions given before and after the project offer some good evidence that nervousness, anxiety, uncertainty and terror were replaced by a sense of enjoyment and achievement. Grouping negative responses from the first question shows that 59.26 % of respondents had initial doubts about the 12 hour sessions, and for the second questionnaire this had gone down to 13.34%. Positive responses make up 40% of the responses that were taken before the project and this grew to 86.67% when respondents reflected back on the project.

They employed a wide range of strategies to complete the project creating timetables, identifying roles, creating ‘soft’ deadlines, organizing regular meeting points and pacing their creative process, they made to do lists and set clear specific goals.

Students stated that the adoption of a non-hierarchical approach by the majority of groups had been an effective strategy for maintaining harmony in the group.

“I feel like some of the groups that had like leaders didn't end up doing that well - they weren't happy bunnies” (FG2)

 “In our group we ended up making it so that everyone had a particular job and everybody could help each other with other jobs but … so that it didn’t get to the end and then we would be like ‘ oh my god, where is this and that bit’” (FG2)

“I think in our group, we had a chat about it early on and we did not think it was necessarily to have titles or have a role because we all wanted to......because of how our book was done, we all done our own sections but then done it together, so it was quite a nice way of working.  I don't think anyone felt like they were in charge or anything like that.  (FG2)

During the process of data analysis it became apparent that the students found it very difficult to separate the pressure of time and the pressure of group work

“I think maybe the reason why I don't like the book that much is because for those two weeks it was like for those two weeks it was so full on, like 'we need to do this book, we really need to do this book' so when I finished it, it was like I just don't want to look at it because it was done!” (FG2)

**Valid information.** *This means that participants share information in ways that allows others to understand their reasoning and, ideally, to make some judgements about whether the information is accurate* *Schwarz (2002).*

Another distinct form of pressure, is brought about by the withholding of information, if we withhold information we create pressure on the group by forcing it to go and find out information for itself, and so if we are to embrace the idea of a “thinking group” that contributes to an evolving creative project, then providing too much information could limit this process of creativity. But that also needs to be set against student ability and their existing knowledge, which by HE levels 4,5 & 6 based on survey data is considerable.

The students on the whole are aware that at level 5 they are expected to use their own initiative noting that “ we are all pretty used to taking responsibility in the second year [level 5], you don’t really get taught that much, and you just have to know your own approach, your own way of working.” This independency has it’s own rewards but the students did feel that certain information was provided, which created an added and unnecessary pressure. “They probably should have told people to have a pot, like, everybody put an amount in, because one person ended up spending all the money and then you have to split it up to make sure … I spent a bit but then someone else spent like £12” (FG1)

This financial pressure didn’t occur to the research team at the beginning and as the data proved, it becomes more important than most others, all 5 participants in the focus group agreeing that the cost of production should have been managed by the tutors. “Oh we can do a lovely creative thing, I can do whatever I want  … no I can’t because I am poor”

***Free and informed choice.*** *Participants should be able to define their own objectives and methods for achieving them; choices should not be coerced or manipulated; and choices should be based on valid information. Schwarz (2002)*

The groups were given a simple fairly open theme to work with, all working on the same one, but each project was then open to grow its own, narrative, style, design and content. We now recognise that this freedom is in itself a form of pressure, best defined as ‘creative pressure’ that comes about through a lack of limitations, the creative blank page. The students in the focus group referred to how they dealt with the time-scale “We set ourselves kind of realistic goals and what time we were going to get it done” (FG1) and also others referring to the creative work “ so it was fine in the creative bit but when it came to the making stuff, things were a bit slower” (FG1)

***Internal commitment.*** *Participants feel personally responsible for the choices they make: their own their decisions. In addition commitment to action is ‘intrinsic, rather than based on reward or punishment’. Schwarz (2002).*

On the whole because the students weren’t given much valid information, it could be seen that their internal commitment grew. In the first 12-hour session the students rose to the challenge and reflected, “Well, if you have to keep going on the same thing, eventually you figure out a way that makes it work.” (FG1) also noting that they become more ‘realistic’ about what is manageable within the timeframe.

When asked if their attitude to the project had changed now they had received their marks one student remarked “I felt as if I got as much out as I put in really” (FG2)

“Yeah you just have to get on with it - there is not really any time to say 'oh I don't really want to do that', you just go 'oh we are going to do this bit and I need to do it by the end of the day otherwise we are all going to suffer' - like it is not going to help anyone else so.......”(FG2)

***Compassion.*** *Participants need to be able to suspend judgement and allow themselves to be concerned about the experiences of others, and their suffering. They also need to be concerned with their own suffering and wellbeing.(Schwarz 2002).*

“Yeah I think like Tom said, most of us get like a grade higher than we did in our individual project, so I think when you are in a group it does sort of push you because you know you have other people depending on you as well” (FG2)

The students talked a lot about compassion in the first focus group (which was during the project) making it clear that every effort was being made to include all members of their group, and when asked about how the groups worked together one student remarked “I think it is about the relations between people … I think it’s because you don’t want to let people down” (FG1) also ensuring no-one is left out for both the groups and individuals “Make sure everyone has a job so that we don’t get to the end and feel like “oh no, where has that bit gone – none of us did it!”’. Interestingly very little reference was made in the second focus group (which was after they received their results and the project was finished) about harmonious group work. Overall the students were highly concerned about their group members citing more than once ‘respecting other opinions’ ensuring ‘everyone had a role’ and ‘recognising other work differently.” (FG1)

**CONCLUSION**

We continue to see pressure as a positive contribution to student learning in Art & Design education, which can create stronger links to practices in the creative industries in terms of time-frame and pressure. Although through research it has been consistently found that the students don’t necessarily see the value in this type of pressure as a pedagogical tool, which may be due in part to them only having a limited knowledge of professional creative practices and also to them not having enough reflective space to process the project.

Much of what we have learnt, can be applied directly to future projects within level 5 and 6 and to broader teaching strategies for BA Illustration courses nationally (Seec) SEEC level descriptors indicate that we can create teaching materials in response to the research that would be relevant to, photography, fine art, media and graphic design courses. Our aim is to conceive a modular set of teaching materials based on the student input, offering a range of information that the tutor has full access to but can then tailor to the ability of the group. Both researchers having a strong background in book design.

Good book design is about the clear communication of information and so it made sense to apply what we knew about this to ensure we gained maximum impact from the research findings. An example of the way process worked is illustrated through the modular format that we are working on as our overarching design concept. Offering a range of information that the tutor has full access to but can then tailor to the ability of the group. In our conclusion we aim to break that down even further and explain the thinking behind each individual element of our final design concept.

In light of the findings we propose the modular sections as:

**Section1;** defining **different types of pressure** they will encounter and thinking about how the information students are given effect them in different ways.

We identified, an interesting inter-play, between two rival creative pressures, the giving of information and holding back of information, connecting this to the degree of pressure that can be created but also the type of pressure it exerts on the student and their learning process. The project was run in an open-ended student centered way, with students gaining control and ownership of the project from a very open theme, in previous years we used the phrase “girl & Bird” this year it was “The lost tree club” a simple piece of text that un-qualified in anyway and open to be adapted without limitation in terms of format, size, media, content, narrative, meaning. Theorizing,

Based on this initial observation we identified a way to separate some types of information in two. We found that holding back information about format, size and media (print processes available) can cause tension, confusion and disharmony in the group, but giving too much information about content, narrative and meaning can limit the groups creativity. Whilst the division is a little too neat and there is a case for elements of either type of information working in either section (REF), format, size and media can all offer a stimulus to creativity. The definitive nature of this type of factual information means that it can provide accurate valid information, strong content for the students and teachers to consider, reflect on and respond to detailed information on potential, format, size and media options. Because in each case these elements of the design process require content, narrative and meaning to become part of the creative process. ‘Self-directed learners, rather than pre-planning their learning projects, tend to select a course from limited alternatives which happen to occur in their environment and which tend to structure their learning projects’ Spear and Mocker, and Spear (1984, 1988 quoted in Merriam and Caffarella 1991: 46-8) Accepting this, our response for this section, in the overall design concept was to increase the amount of information given about the specification options for the editions, giving a whole range of alternatives, while attempting to more or less match the cost for each format, with variance in terms of media and length of the publication that can be factored into staff and students process of framing the projects final output. Because we see self-direction as the continuous exercise by the learner of authentic control over all decisions having to do with learning, facilitated by an ability to gain access to, and choose from, a full range of available and appropriate resources*.* Brookfield (1994). We feel that, given the findings, this will help to facilitate group progress, alleviate tensions identified in the FG, and further develop a sense of achievement by encouraging students and staff to set defined professionally considered outcomes at the start of the project.

**Section 2; Costing of the project**

Cost was an issue that affected the solidity of several groups, the relationship between, cost of the edition the design of the edition and the quality of the edition. Is a group exploration that’s grounded in hard data, in that sense it can be separated from more ontological lyrical information that might reduce or skew the creative information that students generate for themselves during the project. And by providing factual data, on paper cost, print cost, bindings, etc we can encourage this process of grouping design options into clusters of information that students have reflected upon would be a means to facilitate more effective self-directed learning.

We’ve heard from our students already, through the focus groups, that they accept that HE at level 5 requires a commitment to independent learning and so in the past we have withheld a lot of information from the groups to encourage them to find out for themselves as independent learners who *enter into learning more purposefully and with greater motivation. They also tend to retain and make use of what they learn better and longer than do the reactive learners.’* (Knowles 1975: 14) But the data from our focus groups repeatedly identified elements of information we chose to withhold that had a negative impact on learning and group cohesion. *Self-directed learning thus, in this view, becomes possible, when certain things cluster together to form the stimulus and the opportunity for reflection and exploration.* Merriam, S. B. and Caffarella, R. S. (1991) We began to consider ways we could offer stimulus to the students by better understanding the types of information we offered and how we offered them.

**Section 3; Content and narrative**

Our strategy for content, narrative & meaning required a different approach to the amount and type of information we offer and in the design process form another distinct modular section. The aim in doing this is to facilitate students making free and informed choices as a part of their creative response to the initial trigger phrase we have given them in the past, acknowledging that for this type of information perhaps less is more. *The setting of the title may well have influenced the outcomes i.e. Girl and Bird rather than Bird and Girl and subconsciously set out the parameters of the initial responses.* Potter (2014) Potter suggests that the *next stage is to distribute the title in pictogram form only.* We agree with this earlier study and suggest that it could be extended to include other forms of data as well as pictograms, photographs, found objects, factual-data, ephemera and through online links, oral recordings or sounds. By further sectioning each of these initial triggers we offer the chance to mix and match stimulus or introduce a random selection element to the process of framing the project.

**Section 4; Management**

The modular design we used to help us focus our response to the research increases the level of support groups are getting, in terms of information. But could we also offer an artistic imperative in the way we facilitate the group structure? What was useful here was that students ‘Just had to get on with it’ (FG2) but that they observed this had been important in defining roles(FG2). We looked at the structures they had evolved and saw a pattern that we could adopt as a strong structure for students to feel an artistic connection to the work being made an internal commitment that also maintained strong group communication.

“Yeah...I mean we didn't really choose a strategy - it just seems the best choice at the time. We didn't say 'how are we going to organise this?', we just thought ok, do you want to do that? So it wasn't really organised so we probably would do that again!!” FG2

No single project leader was identified in any of the 13 groups which have all been self-organising and non hierarchical in that sense. *“We put it on ourselves and then we put it back into the project rather than putting pressure on each other.”* FG2

There was a similar pattern in the majority of the groups that we used as a starting point for strategies we could offer in the guidance we publish. They were commonly structured so that in both 12 hours sessions group members would spend periods working together and periods working alone. Initially taking away a conceptual problem to work out, often the same concept was being explored, so that they had three options to consider when they reconvened. Once content had been defined, they then extended this strategy, so they spent longer periods working apart on final artwork. We feel this structure forms a useful teaching strategy to initiate group discussion about the relationship between solo and group activity within the group, that is relevant to the type of group structures that they will encounter in the creative industries. And whilst we have to acknowledge a certain irony in offering suggestions for ‘self’-organisation, we feel that is outweighed by the advantages of offering a clear structure that seeks to maintain an artistic imperative in all group members, as opposed to one where defined roles in the process are assigned and learning becomes less holistic. Particularly at level 5 though level 6 students may well have a stronger sense of future employment goals, so structures with more defined roles might be thought about more.

**Last thoughts**

The definitive nature of this type of factual information means that it can provide accurate valid information, strong content for the students and teachers to consider, reflect on and respond to detailed information on potential, format, size and media options. Because in each case these elements of the design process require content, narrative and meaning to become part of the creative process. ‘Self-directed learners, rather than pre-planning their learning projects, tend to select a course from limited alternatives which happen to occur in their environment and which tend to structure their learning projects’ Spear and Mocker, and Spear (1984, 1988 quoted in Merriam and Caffarella 1991: 46-8) Accepting this, our response for this section, in the overall design concept was to increase the amount of information given about the specification options for the editions, giving a whole range of alternatives, while attempting to more or less match the cost for each format, with variance in terms of media and length of the publication that can be factored into staff and students process of framing the projects final output. Because we see self-direction as the continuous exercise by the learner of authentic control over all decisions having to do with learning, facilitated by an ability to gain access to, and choose from, a full range of available and appropriate resources*.* Brookfield (1994). We feel that, given the findings, this will help to facilitate group progress, alleviate tensions identified in the FG, and further develop a sense of achievement by encouraging students and staff to set defined professionally considered outcomes at the start of the project.

References:

Argyris, Chris and Schön, Donald (1978) Organizational learning: A theory of action perspective, Reading, Mass: Addison Wesley.

Amabile, T. J., et al. (2002). Time Pressure and Creativity in Organizations: A Longitudinal Field Study. Working Paper # 02-073, Harvard Business School**:** Retrieved 2nd April 2015 from<http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2013&ved=2010CDYQFjAC&url=http%2013A%2012F%2012Fwww.hbs.edu%2012Ffaculty%2012FPublication%2520Files%2012F2002-2073_2003f2011ecea-2789d-2014ce2011-b2594-e2074aa4057e2022.pdf&ei=qlMqVYiwLpSQ2017AavkYCwDw&usg=AFQjCNGbLxax-SIf2018y2007pzEbtTqKx2016kdIg&sig2012=2014e2019t2017M2016hRzVNlAPynIcfXw&bvm=bv.90491159,d.d90491152s>

Ball, L, Pollard, E, Stanley, N and Oakley, J, (2010) Creative career stories, Creative Graduates Creative Futures Higher Education, Partnership and the Institute for Employment Studies,

Brookfield, S. B. (1994) ‘Self directed learning’ in YMCA George Williams College ICE301 *Adult and Community Education Unit 2: Approaching adult education*, London: YMCA George Williams College.

Glaser, B. & Strauss, A. (1967)*The Discovery of Grounded Theory,* Chicago: Aldine*.*

Glassman, Urania and Len Kates (1990) Group Work. A humanistic approach. Newbury Park, CA.: Sage.

Excerpt from James, R., McInnis, C. and Devlin, M. (2002) Assessing Learning in Australian

Universities. This section was prepared by Marcia Devlin.

Kretschmer, M, Singh, S, Bently, L and Cooper, E, Copyright contracts and earnings of visual creators: A survey of 5,800 British designers, fine artists, illustrators and photographers, CIPPM, Bournemouth University, 2011

Maiden, B. and B. Perry (2010). "Dealing with free‐riders in assessed group work: results from a study at a UK university." Assessment & Evaluation in Higher Education **36**(4): 451-464.

Merriam, S. B. and Caffarella, R. S. (1991) *Learning in Adulthood. A comprehensive guide*, San Francisco: Jossey-Bass.

Mullender, Audrey and Ward, Dave (1991) Self-Directed Groupwork. Users take action for empowerment. London: Whiting and Birch.

Knowles, M. (1975) *Self-directed learning: A guide for learners and teachers*, New York: Cambridge Books.

Schwarz, Roger M. (2002) The Skilled Facilitator: A Comprehensive Resource for Consultants, Facilitators, Managers, Trainers and Coaches. 2e. San Francisco: Jossey-Bass.

SEEC (2010). Credit level descriptors for Higher Education. Southern England Consortium for Credit Accumulation and Transfer see www.seec.org.uk