*9th International Conference on Higher Education Advances (HEAd'23)*
Universitat Politècnica de València, València, 2023
DOI: http://dx.doi.org/10.4995/HEAd23.2023.16259

# My first six months (MF6M): industrial design students perceptions of their first semester experience of learner-centred design studios

**Helen McLean[1], William Dim[2], Soumitri Varadarajan[2,] Caroline Francis[2]**
[1]Learning & Teaching, RMIT University, Australia, [2]Industrial Design, RMIT University, Australia.

***Abstract***

*This paper reports on a learning and teaching project investigating the experience of Industrial Design students in their first semester of study in three courses that were reimagined to increase students' agency in shaping their learning. In this five year project, My First Six Months (MF6M), teachers aimed to create a learner-centred environment by using facilitative, rather than directive, teaching strategies in a studio-based context. Focus groups with students explored their experience of the courses and unearthed valuable insight into students' expectations about learning at university and the design discipline. Students were overwhelmingly positive about collaborating in their projects, while diverse expectations about learning and teaching roles and bemusement about the different emphasis on assessment featured prominently in students' reflections. Recommendations arising from their perceptions include providing an ongoing narrative about independent learning throughout each course and ensuring support and expectations for independent learning are more explicitly designed into the course delivery.*

***Keywords:*** *Industrial design pedagogy; progressive education; learner-centred.*

## 1. Introduction

My First Six Months (MF6M) is a five-year learning and teaching initiative that commenced in 2018. The initiative involved reimagining three first-year studio courses with learner-centered pedagogies in an undergraduate Industrial Design degree at an Australian metropolitan university.

The objective of the foundation year courses was to introduce students to learner-centered learning and teaching methods during their first semester, with the aim of establishing their independence as learners in these courses and their future studies. The initiative sought to depart from the traditional tertiary education model, which relied on an assumed or unconscious enculturation of students in design practice (Webster, 2007).

A purposeful shift in classroom power dynamics from the teacher to the learner (Goodyear & Dimitriadis, 2013) promoted personal and social construction of knowledge (Bandura, 1997). The 'students as partners' (Matthews, 2017) approach was employed from their first steps, to engage their independence as lifelong learners into these courses (McLean & Varadarajan, 2020) and its objective was to cultivate students' independence and self-regulation as learners (Bandura, 1997), fostering their individual development and confidence (Boud, 2000).

The MF6M courses were deliberately designed to challenge the roles of both learners and teachers. The students received less direction from tutors in leading and evaluating learning than it was assumed they would be familiar with, as first-year university students. Tutors were instructed not to "talk at students" by way of lectures or seminars but to embody partnering dispositions and work alongside learners to support and prompt but not lead learning. Despite diverse modes and contexts of practice over the life of the initiative, the approach to learning and teaching remained consistent.

This paper addresses a period in the course where classes in each course were combined as a weekly three-hour studio workshop for approximately 60 students enrolled. The teaching team (three tutors) physically located themselves to be among students in the workshop space to facilitate and guide the weekly activities where students needed to be highly active and participatory in exploring, experimenting, researching and constructing design solutions collaboratively.

Each course provided an extensive set of digital resources for students to explore according to their own interests and needs for researching, prototyping and making design solutions. Site visits to professional studios and industry locations along with evening talks with professionals were also offered as additional learning opportunities.

## 2. Realistic

A key feature across the MF6M approach involved students working in small groups to develop responses to design briefs, setting their own solutions and standards according to their combined skills and knowledge. Classes were free from the direction and external influence of an expert or 'master' and students were provided with a range of digital resources, site visits and expert talks that were not prescribed throughout each course but offered for students to curate and engage with for their own needs and interests. Using inherent design processes of pinup, peer review and self-assessment, there was an underlying objective for students to also begin developing their own understanding and language of design concepts and standards nurtured through emerging and ongoing dialogues about quality and standards of their work (Boud, 2000; Sambell, McDowell, & Montgomery, 2012). At heart, these methods sought to seed students' independence and to avert a 'master' and 'apprentice' model of learning that may become construed through power relations often established in assessment practices like the studio review or presentation (Webster, 2007). At the outset of MF6M it was assumed that the introduction of learner-centred methods would stimulate shifts in students' expectations about roles and responsibilities in learning and teaching.

## 3. Methodology

A research proposal was designed to investigate and evaluate the student experience of MF6M. It acquired University Ethics approval and was led by an academic developer who was external to the School that the project was based in.

Focus groups were used to acquire students' perceptions of their experience in these courses and students were invited, rather than selected, to participate. The focus groups were promoted by posters and in-class visits by the academic developer, as well as prompts from teaching staff to students. Of the approximately 60 students enrolled across the three courses, five students from those courses responded and opted in. The diverse student sample of five was randomly assembled into two groups, of whom four were school leavers - three females (one who had previously engaged in Industrial Design study in Semester 2, 2017) and two males (one who was mature-aged in his mid-twenties), all were domestic students.

The participants signed consent forms and were advised they could cease involvement in the study at any stage and that their participation was anonymous, their contribution would be de-identified and what they disclosed would have no impact on their assessment results for this and other courses in their studies.

Each of the interviewed students had experienced at least one of the courses in the MF6M project, though did not need to have had previous experience of the program to share

perceptions about the MF6M course they were enrolled in. Questions based on the following topics: *Structure of the Course, Learning Activities* and *Learners and Teachers Roles*, were issued before the focus group, for participants to consider.

Transcripts of the focus groups were commercially transcribed, analyzed using NVivo for themes, and shared with participants for member-checking. None of the participants had any objection or comments about the veracity of the transcribing or that the content of the interviews should be changed or removed. To further correlate the focus group responses, Course Evaluation Survey (CES) qualitative comments were also thematically analyzed. An inductive approach was used to allow unanticipated responses and insights to emerge, in addition to the deductive process for identifying initial perceptions.

## 4. Findings

Following is an analysis of the students' perceptions that emerged from the above-mentioned topics of the focus group questions.

### *4.1. Structure of the Course*

Students indicated that they liked the course structure, which consisted of an initial three-week 'intensive', a seven-week project development phase, and a two-week portfolio preparation period. Weekly classes had an open approach with collaborative group activities instead of lectures and seminars, which students enjoyed for the sociability, interaction, and diversity of feedback from the tutors, particularly around assessment tasks and outcomes. Although some students were still uncertain about expectations, they generally enjoyed the class structure as it encouraged active discussion and sharing of work and feedback. Engaging with their peers' work inspired and motivated those students, allowing for the construction of shared standards and expectations, rather than relying on external frameworks. This often served to inspire or motivate students through a sense of competition or awareness of new possibilities for their own work.

However, the ambiguous nature of the project thematic still left some wanting clearer briefs and more formative feedback from the teaching team to establish confidence in requirements and assessment tasks. Overall, students voiced that the design studio activities such as presentations and pin-ups were useful for facilitating learning and keeping on projects track.

### *4.2. Learning Activities*

The students referred to learning activities that are inherent to design practice (pinups, presentations, site visits, peer feedback and review), and other activities that were designed to develop their independence as learners and emerging professionals (group work, self-assessment, industry and site visits).

*Design Practice:* Students in the course found the pinup and work presentation practices to be positive and motivating experiences that allowed them to interact and engage with their peers and the teaching team. Despite some initial uncertainty about the requirements, students soon recognized the value of these activities in providing formative feedback for improving their work and progressing ideas.

While students appreciated the peer feedback and review process, they also felt that it could be constraining. Some students found it challenging to provide constructive feedback, as P4 noted that some students tended to focus too narrowly on one aspect of the work. Similarly, P3 found that the feedback they received could be obvious at times. All students acknowledged that giving and receiving feedback was a valuable skill that they needed to develop further.

*Activities for Learning for Independence:* Students were overwhelmingly positive about working in groups and found it to be a valuable learning experience. They appreciated the opportunity to collaborate and recognized that working with others had multiple benefits for developing their design skills and socialization. Though, student P3 was also aware of the challenges of shared work, with some students feeling uncertain about what they could claim for their individual assessment.

While students were positive about peer feedback and review activities, they also wanted more 'expert' critical feedback from tutors to scaffold their understanding of standards in the discipline. Students P2 and P4 also expressed bemusement at the social dynamics and competitiveness that sometimes emerged in the peer review process, such as when peers would not accept constructive feedback.

Self-assessment was seen as a valuable tool for developing self-regulation skills and reflecting on learning, but student P1 and P3 were not as enthusiastic about it or fully confident in the veracity of the process. There was a sense of uncertainty about the standards they were assessing to and how to judge their own work. Despite this, students generally found the MF6M course structure to be engaging and collaborative, although students P4 suggested that clearer briefs and more formative feedback from the teaching team would have been helpful to contextualize the outcomes of self-assessment.

### *4.3. Learner and Teacher Roles*

*Facilitating rather than Directing:* First-year students had mixed responses to tutors not taking the lead in directing their learning. Some enjoyed the freedom to follow their own interests and adapt briefs to their skills, while others expected more specific guidance, particularly for managing their time and maximizing their efficiency in the learning process.

In addition to guidance, students also expected tutors to help them understand difficult concepts and theoretical constructs. They liked hearing tutors give their opinions to challenge

them. For example, student P4 found a class particularly memorable when the course coordinator gave a provocation about design and waste. Student P4 also mentioned, although it annoyed some, they thought it was a useful wake-up call.

*Guidance and Clarity:* While students were trusting to engage in introductory activities that inducted them to the design discipline and the program, they wanted more clarity about the specific requirements and standards for learning activities and tasks that were oriented to assessment. They also expected specific guidance for managing their first encounters with design education protocols and practices like the pinup and presentation.

*Evaluating Learning:* During the focus group, students expressed confusion about the self-assessment process and its relationship to their final grade. Student P1 was unclear about their role in the process and how it related to the criteria for assessment. There was also uncertainty about the moderating process and its purpose. Student P3 recounted how a tutor explained that if a self-assessment was an outlier to the trend, that it would be brought back in line. Regardless, some students remained unsure about the inconsistencies they observed in how peers were assessing their work. For those who wanted to participate thoughtfully, they were uncertain about the standards expected and how to assess their work. Students P1 and P4 concurred that although they successfully constructed an understanding of a benchmark, that there was still a lack of definitive measure.

## 5. Discussion

Students highly valued the social opportunities in their courses and were overwhelmingly positive about group work. As first year students, they demonstrated a maturity in managing social and group dynamics under pressure while working collaboratively in groups. It was perceived as an inherent aspect of design practice. Leveraging each other's skills, learning's and talents through the constant public presentation and discussion of projects, it seemed they were able to garner more appropriate, implicit and direct feedback, which produced a higher quality of work outcomes. These identified benefits clearly resonate with the qualities that Ashford-Rowe, Herrington, and Brown (2014) associate with authentic assessment.

The most significant and underlying issue to emerge from the interviews was that a number of students were still unsure about the intended purpose of the self-assessment process. Their perceptions revolved around inconsistencies and uncertainties running through the process, such as: lack of awareness of moderation, students ignoring peer feedback and grading themselves high, or others taking the process seriously and genuinely reflecting on their learning but getting little confirmation of standards. As first year students who mostly had not experienced self-assessment previously, these doubts about the process are understandable and the issues they describe have been acknowledged by others, including Sambell et al. (2012).

The dominance of grades in shaping students' attitudes towards learning is notable, as reflected in their inclination to equate the process of self-assessment with the final grade (Biggs & Tang, 2011; Sambell et al., 2012). This focus on grades detracted from the cognitive process of reflecting on their own work. Additionally, students were influenced by social dynamics and competition, through seeming arrogance or ignorance, 'appeared' to result in some awarding inflated grades, thereby raising concerns about the fairness of the moderation process, even though they knew that extreme grading would be moderated by the teaching team. It may be that at the time of the focus groups, students hadn't received their final grades for the course and thus had not been able to 'close the loop' or examine the gap between their own estimations and the moderation process, and thus be confident in the integrity of it.

The language used by students throughout the interviews suggests that most were not immediately ready to be independent 'partners of learning', a key intention of the MF6M initiative. Although comfortable to be creative in exploring ideas, problem solving and prototyping for learning activities, they tended to convey notions of dependency on tutors, often expressing need for 'clarity', 'guidelines', 'consistency', 'standards', 'benchmarks', particularly around assessment tasks, or 'explain a little bit more', 'more feedback', 'I didn't really know where I was at' for learning activities. However, the language they use to describe the deficiencies that they perceived also points clearly to needs that are relational and dialogic, resonating with strategies that Matthews (2017) proposes as essential for a successful 'students as partners' model. Additionally, as first year students in semester one, they did display strong abilities to set goals, problem solve and complete work, suggesting that with some clearer guidance in the set up and defining of expectations, independence and partnering as learners is a clearly achievable goal for the next stages of the program.

## 6. Recommendations

The following key points emerged from the student experience and suggestions for addressing them:

1. Establish clear context and ongoing narrative to reorient students towards increased independence and self-responsibility as learners and partners in learning.
2. Provide a clearer definition of responsibilities for teachers and students to align expectations.
3. Offer guidance and assistance for students to navigate and engage with the extensive range of resources available.
4. Provide explicit guidance, feedback, and benchmarks early on to manage anxiety, support awareness of standards and expectations, and gauge student development.
5. Socialize assessment as a learning process to embed a changed mindset and understanding of lifelong assessment literacy.

6. Ensure integrity of self-assessment results through moderation and reflection on the process of self-assessment and responding to feedback, potentially 'unhooking' grades from the assessed product.
7. Reflect and share experiences of 'partnering' at the end of the course to confirm milestones and expectations around independence and self-regulation development.
8. Establish a contract of expectations and responsibilities to support busy students in planning their engagement with the course's rich experiences and resources.

## 7. Conclusion

In summary, the students who participated in the focus groups had positive perceptions of the three courses within MF6M, recognising the courses' purpose of preparing them for the complexities of the world. They valued the emphasis on group work and its relevance in both their design education and personal development. Some students even acknowledged the courses' aim to promote innovative thinking and social responsibility within the design field.

However, the students also shared aspects of their experience that did not meet their expectations, including uncertainty, feeling overwhelmed, and discrepancies between their assumptions and the course expectations. As this project aimed to introduce new social norms and responsibilities for learning, it is crucial for students and teaching staff to establish and maintain a culture of effective communication and mutual support throughout the program. Doing so will ensure that students remain confident and committed to their learning not only during their time at university but throughout their future lives.

## References

Ashford-Rowe, K., Herrington, J., & Brown, C. (2014). Establishing the critical elements that determine authentic assessment. *Assessment & Evaluation in Higher Education, 39*(2), 205-222.

Bandura, A. (1997). *Self-efficacy : the exercise of control*. New York: W.H. Freeman.

Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university: What the student does* (4th ed.). Maidenhead: McGraw-Hill Education.

Boud, D. (2000). Sustainable Assessment: Rethinking assessment for the learning society. *Studies in continuing education, 22*(2), 151-167.

Matthews, K. (2017). Five Propositions for Genuine Students as Partners Practice. *International Journal for Students As Partners, 1*(2).

McLean, H., & Varadarajan, S. (2020). My First Six Months: Students' Perceptions of Learner-Centred Design Studios. In (pp. 143-153). Singapore: Springer Singapore.

Sambell, K., McDowell, L., & Montgomery, C. (2012). *Assessment for Learning in Higher Education*. London, UNITED KINGDOM: Taylor & Francis Group.

Webster, H. (2007). The Analytics of Power: Re-presenting the Design Jury. *Journal of Architectural Education, 60*(3), 21-27.