

**Changing Speed**  
**How first Year Students learn to learn in the Design Studio**

## **Abstract**

The entry into Irish Universities for second level students is governed by a system of points awarded on the basis of results in a set of state run examinations. In the Irish school system a didactic method evolved in which evident ‘truths’ are imparted to students by teachers, and at the end of five or six years of second level education the students’ ability to restate these truths is measured in written examinations.

The School of Architecture University of Limerick (SAUL) uses a significantly different pedagogical approach: in the design studio students learn the design process primarily via Socratic techniques with their teachers as well as their peers. Student and teacher engage in an inquisitive dialogue, together interrogating the design problem at hand, without knowing precisely what the ultimate product will be, but acquiring the techniques of the process being the ultimate learning outcome. This relies on a specific learning environment and infrastructure (individual and collective workspaces, workshops), and establishing a relationship of trust between teacher with each and every student. This change in learning methods represents a considerable challenge for first year students,

We outline how this drastic shift in learning techniques is negotiated by incoming first-year students, and in particular how the Design Studio module has been structured to help with this transition. We cross reference our approach with feedback from a questionnaire of current second, third and fifth year students about their experience of first year. We are seeking insights into which techniques are working and which need to be adjusted.

## **Keywords**

Architecture, design studio, pedagogy

Design Studio is the core module in the study of architecture - in Year 1, 50% of the total credits awarded are for Design Studio. The modes of learning in this module are significantly different to those that incoming Year 1 students have previously experienced in the Leaving Certificate system and thus one of the key challenges for students is learning these new learning methods.

The majority (>90%) of intake into Year 1 of the architecture programme comes directly from the Leaving Cert system. The learning techniques and habits of these students are formed under this system and given that the median points for the Year 1 intake ranges around 500, the students' learning habits are well formed.

The Leaving Cert system is focused on maximising the result from a number of one off high stakes written exams, as the results from these determine what university course a candidate may enter. The principle in these exams, in very broad terms, is that there is a right answer and a method(s) to get to this answer, and reproducing these as accurately as possible will maximise the grade. This has a profound impact on teaching and learning methods. There is an emphasis on rote learning, and the reproduction of learned facts. This leads to a strong reliance on didactic teaching, and an emphasis on exam technique including rehearsing exams, learning answers by rote in anticipation of questions predicted to come up in exams. The students take a passive approach to their learning. There are no links made between different subjects, with each subject considered within its own silo. Teachers and students drive toward this learning style to optimise results in the state exams. (1)

The learning process in the design studio is iterative, evolutionary, encouraging of experimentation. The fundamental underpinnings of the pedagogy are captured in the words of Samuel Beckett, "Ever tried. Ever failed. No matter. Try again. Fail again. Fail better." (2) Students must actively cross pollinate from other modules, explicitly using learnings from these in Design Studio (structural, environmental etc.).

There are no 'right answers'. Design projects are understood not as problems to be solved but as open-ended challenges and opportunities for exploration. It is a search for an answer using many techniques responding to a student's ideas rather than driving them towards a preconceived result. The process is more important than the product, the product is a means to develop the process thus teachers query design decisions, not judge the end product. The method of assessment further illustrates this difference - there are no written exams in Year 1 of Architecture in SAUL. The work is assessed by a portfolio of the work of the semester presented by each student.

### **Transition from secondary school to the design studio.**

The design studio module must actively respond to this transition in its approaches to learning and many of the key features in the first weeks are modelled to address this change.

The studio space itself is seen as integral to this transition. It is a radically different space to that which the learner has previously experienced - the space is the domain of the learner not teacher, a safe space within which one can experiment and explore, with an explicit emphasis on peer to peer learning. The learners are explicitly told to look at each others work and copy the things they see as being successful.

Of course, the pedagogical framework of the module itself and the sequencing of the learning is fundamental to the transition also. The products are not described in detail to the learners, or to put it more positively, there is an openness which demands engagement from the student. There is a constant change in the scale they use moving from 1:1 to 1:50 in the first week, and then to 1:10 and back to 1:1 in the second, etc.. There is a constant change in the media they use - line drawings, card models, plaster cast models, photography. There is fast introduction of new ideas and the students are stretched from the beginning - they start making drawings and models on the first day. There is an emphasis on the idea of space, what that means to an architect, and how it might be described and manipulated. The typical products of the first few weeks in

SAUL illustrate this. This changes from year to year as different approaches are tested, but typically include a 300 x 300 x 300mm cube card model of a space that explores an architectural idea, (threshold, nested spaces, intersecting planes) followed by a plaster model of a space, analysis through drawing and model of a space shown in a painting, one to one space making using timber laths where the students are primed to explore specific ideas such as proportion, section, threshold etc. (4)

A huge component of the first few weeks in SAUL is ensuring that the incoming students become part of the community of learning in the design studio. All incoming students experience a “shock to the system” adjusting to the independence of campus life and the expectation that students take responsibility for their own learning; and UL is building a university-wide framework to support managing this transition. However, in SAUL we are concerned also with the initiation to a learning culture that has its own specific challenge. The unusual youth of SAUL has given the faculty insights into the importance of a studio culture, in that we saw the first cohort having no older peers to observe, emulate, copy or follow. This revealed to us how important it is to see a path that others have made before you.

### **Success?**

Success in an architectural context is difficult to measure. SAUL graduates are still young and making their way. We have very high employment rates in our graduates, and we are very pleased to see the wide range of fields into which our graduates have spread - working in architectural practice, founding their own practices, teaching with us in SAUL and other schools of architecture, working as set designers, architectural photographers, or training in the European Space Agency. SAUL has a (relatively) high progression rate within the university context. We wanted to get a more nuanced sense of our success or otherwise and as part of this research we issued a survey to our current Year 2, Year 3 and Year 5 students. The total number of students issued with the survey was 80 and we had 40 responses.

The survey comprised of 10 statements with which the respondent could strongly agree, agree, neither agree nor disagree, disagree and strongly disagree. The statements were broad and deliberately so. They explored a core set of issues: the perceived differences between secondary school and studio, what helped in negotiating this transition, the learning culture at SAUL, the pedagogical approach. There was space offered to leave comments and a number of respondents left comments - some of these comments are below in bold italics.

There are a number of key messages from the results of the survey

- The students recognise very clearly (Q1 result) that this is a very different way of learning to what they experienced previously, and that this learning is transformative (Q1 and Q6 results) ***The focus on self learning was a big change***
- There is strong engagement with peer learning, and one can extrapolate that this corresponds to early/easy admission into the learning community (Q2 and Q3 result). ***Any student that I knew in the older years was glad to help with any questions I had.***
- There is an understanding of the importance of the role of the physical space as a key learning input (Q4 and Q5 result) ***I think being in a studio environment is important to the education but I think having your own space within the studio is the most important thing, somewhere to take your time to think, and not have to worry about anyone else.***
- The most valued modes of learning are the ‘traditional’ modes i.e. one to one desk reviews, small group sessions and crits, in that order (Q7 result)
- The majority of students feel that they have adapted to the design studio pedagogical model by the end of the first semester.
- The studio is not universally seen as a safe place to fail better - ***In SAUL I can sometimes feel a fear to make a mistake as the competition for grades is far greater than secondary school. I have a closer bond with the SAUL staff than I did with my school teachers. Therefore I am more inclined to ask a question.*** And

*I think it completely depends on the lecturer. Sometimes genuine mistakes are held over you and change lecturers opinions of you and that is hard to shake off.*

### **Conclusions and Future Work**

The most important finding from our point of view is that there is a number of students who do not perceive the studio as a safe place to make a mistake. The design process is reliant on an ability to experiment, speculate, try different things without knowing what the outcome might be. This means that one has to be willing to make mistakes and that one can make mistakes without fear. It is a challenge for us to further encourage students “to fail better”.

On a more positive side, there appears to be a genuine understanding of the learning framework and the importance of this framework in giving an education that changes how the learner sees the world and operates within it. It would also appear that the students perceive the value of where the majority of the energy of the faculty goes into. Tutor to student engagement is the most valued input, whether one to one, small group or crit. We also see the perception that most students adapt the way of learning in the design studio by the end of the first semester as a positive result, particularly combined with the high progression rate which would seem to back this up.

Certainly more research is needed. We wanted to get an overall sense of where our students were in terms of how they perceived their learning, and we feel a discussion with the students based on the survey results would yield more precise answers. We are aware that clearly understanding the process would allow it to be deployed in fields outside architecture, an area needing much more study and development.

We in SAUL would hope that our students might begin to understand the insight offered by architect Neave Brown in a lecture in July 2015

*You go through this difficult, disciplined, irregular, unknown, faulty, do-it-again, do-it-again process to arrive at what you end up with. (5)*

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