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COORDINATING CHANGE – introducing pluralism in the assessment of a humanities module for improved engagement and attainment of first year architecture students

Doina Carter, School of Architecture and Design, University of Lincoln UK

Abstract

This paper reports on the process of diversifying assessment of the '*History and Theory of Architecture and Design'* module at Level 1 in the undergraduate Architecture course at the University of Lincoln, UK. Replacing essays (the traditional form of assessment for theoretical subjects in our school) with other types of assignments was a strategic response to the mixture of academic ability shown in the last decade by first year students; amongst other things, this variety of knowledge and skills is a reflection of the liberalisation of Higher Education in the UK, which increased the diversity of student backgrounds along with the internationalisation of the course (RIBA 2012:7). In addition, statistically (James 2003), creative courses attract a higher incidence of dyslexia than other subjects. In this context, written assignments represented a deficit model of assessment, the solution being to make assessments less dependent on language and the module more immersive and participatory than traditional theoretical subjects, with assignments becoming episodes of active learning. The change in assessment was also seen as an opportunity to re-orient theoretical submissions to become more relevant to practice in architecture. This paper details the reasons and scope of the modifications, describes methods used, within the constraints currently placed on Higher Education in general and Schools of Architecture in particular, and comments on the consequences of these changes for students and academics, from the author's point of view, as module coordinator.

TRADITIONAL ARCHITECTURAL EDUCATION

The purpose of architectural education is learning to design; arguably, *design* is the fundamental threshold concept within the discipline. Threshold concepts are more easily identifiable within areas where the body of knowledge can be readily ascertained (mathematics, physics, medicine), but the term *ways of thinking and practicing* is also considered to be 'a crucial threshold function in leading to a transformed understanding' (Meyer and Land 2011:9). John Soane (1753-1837), an architect of great ingenuity, believed that architecture is 'an Art purely of Invention and Invention is the most painful and the most difficult

exercise of the human mind' (Soane 1929:56). However, the mind needs educating before being required to perform any such exercise. 'The difference between education and training is the development of the mind so that practitioners do not simply follow rules but decide wisely among a variety of ways' (Fish 1996 cited in Ryan 2001). Reflecting on how one learns to design, within the framework provided by Bloom's taxonomy of the cognitive domain (Anderson and Krathwohl 2001 in Atherton 2011), it becomes apparent that a student in architecture has to start *creating* while *understanding*. This simultaneous 'leap', in understanding and starting to function as a designer, is the 'quicksilver flash of insight' which marks a transformed world view (Palmer 2001:4 cited in Meyer and Land 2011), a necessary metamorphosis in a student. An added difficulty in architecture is that the ability to think conceptually is not sufficient, unlike in other artistic milieus. Students with an art background find the incipient stages of a project easy, as this is the period of speculative investigation, which aims to teach how to 'attack a problem with a set of contrivances foregrounding not the solution, but the poetic tropes applied to the solution' (Deamer 2005). Students without such training often struggle longer in this first phase. The rationality of the next stage, however, building something - physically or virtually - comes more naturally, it is easier to learn and therefore it is easier to teach. That is why the Beaux Arts required an impeccable drawing technique of classical ornamentation and the Bauhaus taught practical skills in specific workshops: teaching "mechanical" skills associated with the profession was seen as a gateway into teaching how to *design*.

The defining environment for European and North American architectural education, the studio, has been derived from the pedagogical "algorithm" employed in L'Ecole des Beaux Arts in Paris in the nineteenth century and the apprentice system practiced at the Bauhaus, Dessau, in the 1930s (Lackney

1999:2). 'The Beaux Arts teaching system relied heavily on brilliant teachers and learning-by-doing' while solving a design problem; crucially it introduced "crits", a review method still used in architecture schools. At the beginning of the 20th century, the Bauhaus changed the attitude to design, considering that it 'was neither an intellectual nor a material affair, but simply an integral part of modern concepts of mass production and modern technology' (Lackney 1999:3); students had to acquire technical skills and undergo aesthetic training to employ those skills. Bauhaus challenged the status architecture had within the world of design (architecture was seen as fundamentally no different than product design, for instance), but the studio based teaching and learning model remained unaltered.

However, in the last ten years, architectural education has been under a lot of pressure to change; a paper on what academics write about in the disciplines of Art, Design and Architecture (de la Harpe and Peterson 2008) identified the most concerning topics as the studio reform and art/design thinking. The educational space (intellectual and physical) represented by studio has been irreversibly eroded in the years I have been teaching. The newly introduced KIS (Key Information Set) forced all programmes to assess the number of contact hours: 'most institutions are having some issues, and the really substantial issue seems to be around contact hours: what they mean and how you collect the information and make it auditable, from the point of view of the reliability, transparency and accessibility' (Hitchcock 2012). Studio teaching could be seen as inefficient: numerous contact hours, spent in one to one dialogues, punctuated by frequent intermediate (formative) day-long crits; studio teaching is also demanding in terms of accommodation (space, wall area, furniture), at times used day and night. What is difficult to quantify, or replace for that matter, is the qualitative dimension of the teaching and learning experience,

especially in the first year when the 'transformative leap' ideally should start taking place.

The reality is that while seven years ago, a student was given as much time as needed, today a studio session assumes ten to twenty minutes contact time per student - tutorials have become consultations. Academics are caught between the "investment-cost" paradigm shift affecting higher education - changes in funding means that universities are 'operated from an economic rationalist platform' (Lawrence 2001:5) - and the pressure exerted by validating bodies, quality assurance agencies, various surveys, but also by their moral responsibility as teachers, to equip students with at least a "professional survival kit". Studies show (McInnis 2000 in Lawrence 2001) 'increasing casualization of staff involved in first year teaching'.

FIRST YEAR CURRICULUM

First year architecture students can find it difficult to engage with project based work, on which studio teaching concentrates. Projects require a degree of autonomy students might not be accustomed or comfortable with, especially in an unfamiliar learning environment. In schools, teaching is generally teacher centred, in effect *problem solving* (Savin-Baden 2010), while any design exercise is *problem based*: it requires students to have 'a sound understanding of the knowledge they have researched and explored, and an ability to critique information', to involve life experience, engage *with* complexity and see and manage ambiguity (Savin-Baden 2010). Devising the curriculum for this formative and transformative period is a dilemma, as tutors try to find a balance between prior experience and new knowledge, conceptual and formal dexterity, material manipulation and cultural awareness, urban context and functional necessities and so on. Deamer (2005) considers that it is the 'entire

net of relationships of the studio teaching – the critic, the program, the object (project) and the student' which determines if the course will produce 'a person interested in contributing to civic life via her/his skills as an architect', an 'architectural citizen'.

Lawrence (2001) talks about the change in nature and purpose of higher education due to 'elite – mass' and 'investment – cost' paradigm shifts. The effect is felt routinely in class, affecting didactic approaches; however, the aim to produce 'architectural citizens' is not merely a mirage chased by idealistic pedagogues. As the professional accrediting body for architecture schools, the *Royal Institute of British Architects* (RIBA) responds to pressure from practitioners who feel that the *actual* vocational education happens in the office, a state of affairs unsustainable in a recession. Statistics show that 'only 30% of those embarking on a first degree in Architecture eventually succeed at Part 3'* (Robinson 2013). The reasons are multiple, some can be extrapolated or inferred from the RIBA's statistical data (RIBA 2012), but lack of relevant skills in a competitive and over-populated profession would undoubtedly be one of them.

The *History and Theory* module I coordinate represents the first year humanities unit and covers significant architectural styles in chronological order, from ancient Greece to contemporary architecture; the *"Theory"* aspect is a by-product of the *"History"* lectures. Delivered in two weekly lectures by various academics, as a necessary introduction to cultural, historic, philosophical context to the profession, the module is shared by three programmes: Architecture,

*qualify, become chartered architects by passing RIBA Part 3: **RIBA Part 1** = undergraduate course (BArc)h, **RIBA Part 2** = post graduate course (March), **RIBA Part 3** = work experience +exam

Interior Architecture Design (IAD) and Design for Exhibitions and Museums (DEM). When the teaching was affected by staff changes two years ago, it created the opportunity to evaluate what, why and how we taught within the the aim and direction of the humanities modules, it highlighted the potential for improvement of teaching and assessment and it increased individual awareness of how one's discrete contribution relates to the subject continuum. Gibbs (2010:6) confirms that 'the extent to which teaching is valued, talked about and developed' is one of the 'process variables' ('what goes on while students learn') that is difficult to quantify, but seems to surface in 'studies of the characteristics of institutions and departments that have been found to be outstanding in terms of valid dimensions of educational quality' (such as Oxford University and the Open University).

The Higher Education Academy (HEA) report regarding the National Student Survey (NSS) findings in design disciplines in 2012 concludes that the most important factor affecting student satisfaction is the quality of learning and teaching, followed by personal development, organisation and management, academic support, assessment and feedback with learning resources being last (interestingly, only 71% of these variables account for student satisfaction, suggesting that there are other contributing factors not measured by the survey…). The quality of teaching is one aspect an academic can control, in a discrete measure; coordination roles extend this influence to the scope, the breath, how profound and relevant learning is. In our field, the aim is to create 'architectural citizens', which does not mean necessarily qualified professionals, but individuals with a heightened awareness and discernment, with work-life experiences and options, knowledgeable or unafraid of knowledge, capable of finding and sifting through it. The *History and Theory* module is a good platform to start this attitude development: the subject itself is appealing and while it would be suitable for any art related

discipline, for architects and designers it can have a focused approach. It was clear from the beginning of my involvement that the content was not to change (although it could be enriched), but what could be altered was the emphasis we placed on what was worth knowing and why. The module could facilitate this shift through the way it was assessed, in terms of types of assessment and assessment criteria.

ASSESSMENT OF *HISTORY AND THEORY OF ARCHITECTURE*

The humanities are one of the 30CAT core modules at levels 1, 2 and 3 in the BArch course, but they do second studio work, a fact reflected in the marks weighting. Humanities subjects have been traditionally graded exclusively through essays, considered to be 'the most useful way of assessing deep learning' (Brown, Bull and Pendelbury 1997: 59). In 2012 however, two out of the three assignments for the *History and Theory* module became "*visual research assignment*" and "*group exhibition assignment*", leaving only one end-of-year essay. These changes were in response to our recent student intakes:

- students arrive with varied abilities, one of them being academic writing. Pickford and Brown (2006) commented that: 'with approaching 50% of the 18-30 population in higher education, it should not surprise us that a significant proportion of our students [do not have] well developed skills relating to academic reading' or writing; Gee goes further by emphasising that higher education represents an unfamiliar world which favours certain 'ways of writing, knowing and valuing' (Gee 1990 cited in Beasley 1997:182) to which students need to adjust;

- in creative arts and design there is a high proportion of dyslexic students - 5.59%, compared with an overall 1.97% in the undergraduate student population (James 2003);

- new entrants have a variety of educational and cultural backgrounds: only 64% of the year one intake come via UCAS, the rest are: mature students, from vocational courses, outside the UK etc; the foreign students account for 28% in an upward trend - the biggest increase has been of students from outside the EU, although Europe is still the largest single source of new entrants at 55% followed by Asia at 33% (RIBA 2012:7).

These factors become immediately apparent when marking essays, much more than in the assessment of studio work. By focusing on a different set of skills with every *History and Theory* submission, a Western-centric module could become more accessible and would make assessment fairer. Pluralism in assessment resonates with The New London Group's *multiliteracy* paradigm, which encourages the usage of 'modes of representation much broader than language alone', intended to replace traditional language-based academic discourses (The New London Group 1996). Since adequate time cannot be given to prepare our diverse students to function in the new 'culture' Universities represent, we have to allow their background to support this transition without penalising the "un-matchingness": differences are not deficiencies. Empowering students to use aptitudes, skills, interests that made them enrol in the first place should promote engagement as a vital aspect of retention, especially in their first semester in tertiary education.

The module descriptor for *History and Theory* was generous in terms of how the submissions could be structured; thus it presented the opportunity not only to diversify assessment but at the same time associate it with studio teaching. In consequence, the rewritten briefs for the new assignments manifested a clear dual purpose: to answer module specific requirements (assess knowledge of history and theory of architecture), but also teach or rehearse skills usually employed in studio (sketching, organisation of graphical information on page, development of explicit and succinct title blocks, architectural annotation,

construction of physical models, design with style constraints, use of light, colour and texture to convey meaning and so on). New feedback forms were devised to make the dual purpose of the assignments transparent to students, with sets of criteria relevant to theoretical knowledge *and* graphical presentation. This was also a way to free the module from its perceived stagnation in a world of irrelevance to current architectural practice. The first two assignments were also intended to be events, work to be displayed in exhibitions, despite spatial constraints. Exhibitions can be a debriefing time and space, where students bond after a shared, often demanding experience. The perusing of all work represents implicit but informal peer review and, in the first year especially, a way of evaluating one's ranking in the new "pack". Exhibitions also facilitate serendipity, dialogues, connections - all important interactions in a new social group.

CHANGES AND CONSEQUENCES

The first new assignment consisted of six hand drawings: three of historic buildings in Lincoln and three buildings of similar styles from books. Pedagogically the first assignment was a conscious decision to re-contextualise theory because 'human knowledge is initially developed not as "general and abstract," but as embedded in social, cultural and material contexts' (The New London Group 1996). The scope of the first assignment had been defined during the introduction lecture at the start of the year, with the explicit intention of making students aware of their immediate built environment: Lincoln, with its Roman remains, allows history of architecture lectures to become relevant quite early in the year (followed by good examples of Romanesque, Gothic, neo-classical and Gothic revival architecture). Methodologically, the brief was intended to be what Prince and Felder (2006) define as 'structured inquiry

learning' (where students are given a problem with clear guidelines of how to solve it) and also an attempt to employ 'learning-cycle based instruction' (Prince and Felder 2006:7). The emphasis in the first two assignments was on the process of learning, influenced by experiential learning theories (Kolb 1984): the act of walking the city with a sketch book or camera in hand, while mentally trying to sort and make sense of the lectures was vital as a first step into the cycle of learning. To some extent, the accuracy of the students' conclusions was secondary, albeit important; echoing Piajet's stance that 'learning is an emergent process whose outcomes represent only historical record, not knowledge of the future' (Kolb 1984:26), the first assignment's aim was to engage students and thus enable them to start assuming responsibility for their instruction (Figure 1).

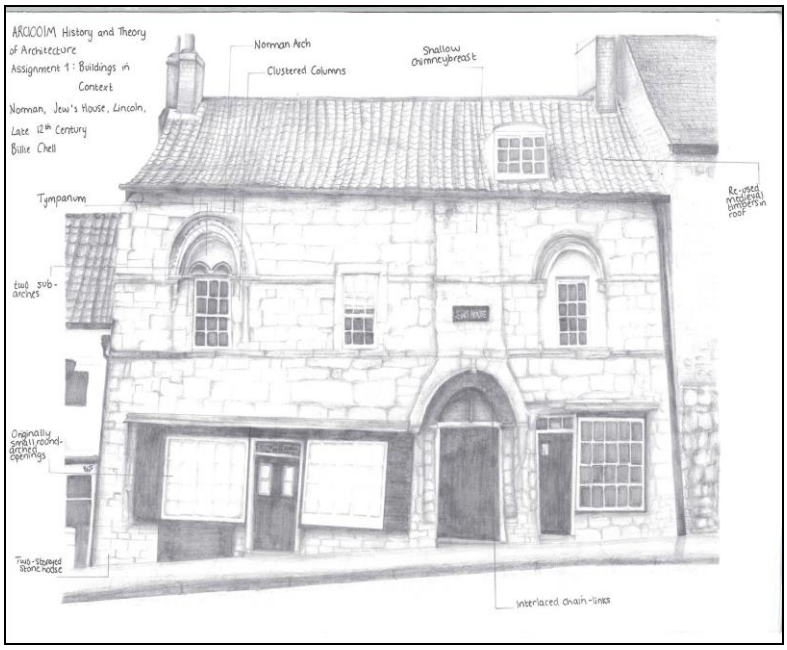

Figure 1 *Assignment 1 - Re-contextualisation of knowledge*: Romanesque architecture exemplified with Jews House in Lincoln (drawing by Billie Chell)

Each assignment was introduced in a lecture to the whole cohort, to outline expectations and answer questions which are generally not forthcoming.

However, an avalanche of queries preceded the deadline for the first assignment; this determined a change in the way the module was assisted; although the learning was still self-directed, weekly one hour drop-in seminars were made available for the three weeks before hand-ins in the spirit of 'just in time teaching' where 'lecturing is only in response to specific student needs' (Pedagogy in action). That was because first year students were not weaned 'away from dependence on instructors as primary sources of required information' (Prince and Felder 2006:4) - they needed assistance to start the transformation into self-learners.

In the first year of implementing these changes in assessment, lessons were learned which affected subsequent academic years. For instance, the first assignment revealed that, while the scope of the brief had been good and learning outcomes had been achieved in terms of testing theoretical knowledge and application of architectural drawing conventions, the wording of the brief had to offer a more explicit and detailed framework. In consequence, the brief for the second assignment was crystallised in discussion with tutors from the other programmes sharing the module, who were questioning its gambit. This ensured the simplicity of the brief's requirement: a physical model - a classical room in a box. Pedagogically, this assignment was an increase in complexity, the students needed to synthesize knowledge tested by the first assignment in order to employ it in design; as Bruner puts it, instruction should be "spirally organized" (in Prince and Felder 2006:4). The more challenging task was also appropriate for group work. Elements of the submission could be divided and working in teams enabled interaction and dialogue, enhanced collaborative skills and individual accountability – aspects which define 'cooperative learning', shown to increase individual student performance if conducted well (Felder and Brent 2007).

A studio skill complementing model making is photography, as it allows the immortalisation of an ephemeral and often frail construct. With no time or resources to induct students in the art of photography, the idea of asking a Contemporary Lens Media (CLM)/Post Graduate Certificate in Education (PGCE) colleague to collaborate with us came about: CLM students were to photograph the models the architecture students had built (Figure 2). This interdisciplinary collaboration proved a very successful immersive 'situated practice' experience (The New London Group 1996).

Figure 2 *Assignment 2 - Synthesised knowledge in design*: Model designed and built by architecture students, photographed by CLM

The work produced for both of these assignments was of high quality and certainly stimulated focused, meaningful research. The "exhibitions" (drawings pinned on boards or models displayed in studio) were testimony to a good level of ability and engagement and were appreciated by tutors and older students, who chose to slalom between the exhibition boards on their way to

studio. While surface learning was still detectable, it was evident that students questioned fundamental aspects of historic styles.

CONCLUSION?

In the last few years colleagues who have been teaching first year studio decry the drastic decrease in contact time, foreseeing difficult times ahead. While *what* we teach has been the same for a while, *how* we teach has inexorably been distorted as the *studio* environment changed from being a community engaged in 'meaning making' (Vygotsky 1978) into a space where individual, timed consultations take place. The modest attempt by the *History and Theory* module to use assignments as opportunities to re-create the "atelier" buzz is not going to reverse this trend. But, they weave a temporary net – of critic, program, object (project) and student – considered vital in studio education, which does not form traditionally in a theoretical subject.

The quality of the new type of submissions for *History and Theory* has been good and tested not only knowledge and skill, but also creativity, interest, determination, application, all necessary attributes of an active learner. Changes in the teaching and learning practice on the first year humanities unit will affect the students' personal development in the long term, as the strategy of the module has been determinedly to affect their *educational gain* rather than *performance* (Gibbs 2010).

While marking the students' last submission for the *History and Theory* module - their first academic essay - Bartholomae's observation surfaces with poignancy: 'every time a student sits down to write for us he or she has to invent the university for the occasion […]. The student has to learn to speak our language, to speak as we do, to try on the particular ways of knowing,

selecting, evaluating, reporting, concluding and arguing that define the discourse of our community' (Bartholomae 1985:134 in Lawrence 2002).

One cannot help thinking that while producing images or models might be partly a quest for an architectural voice, the immersive, complex, introspective nature of drawing and model making - more akin to playing than academic work – exposes and reinforces the creative and expressive individuality of each student.

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