End-piece Prof Richard Kimbell and Kay Stables, Goldsmiths, University of London

Introduction for the 2015 DATA Special Edition

The majority of this paper first appeared as the 'concluding reflections' that Kay and I put together for the 2007 Springer book in which we documented the research undertaken in TERU since 1985 (Kimbell & Stables [2007] ch 15 *Researching Design Learning*. Springer). The paper is based on a personal overview of our thoughts about the 'so-what' of our research. Was it all worth it? How is the world changed? For whom is life better?

There are two additions to that 2007 material – and they both appear at the end of the piece. In the first '*The final curtain*', we outline our reasons for calling time on TERU; announcing its formal closure. In the second '...or maybe not' we suggest a new direction for research at Goldsmiths – building on the wider network of design researchers here who are principally engaged with the Design programmes.

Throughout any designing process – and not least at the end – there are some questions that it is always worth asking of the designer. In schools, learners are familiar with this process, including on occasions presenting their work to their peers for critical review. When we have been responsible for choreographing such sessions, the hardest question we often ask is "so what?' In fact we have elevated this somewhat crude question into a formal

research tool.

"Doing a 'so-what" is a nice shorthand way of probing into the questions that lie beneath the surface. OK so you have developed a new chair / calendar / baby-feeder. So what? How is the world changed? For whom is life better and richer? And who ends up worse off? And why? Such questions challenge budding designers to think of themselves as something more than merely developers of more stuff. We have repeatedly drawn attention to the similarity that we see between designing and researching, so perhaps we should turn our question on ourselves. 30 years of technology education research...25 of them as TERU: so what? How is the world changed? For whom is life better and richer?

We might offer all sorts of answers to this challenge, and – on reflection – they fall into three categories that, taken

together, act as a satisfactory conclusion to this work. The superficial answer would be to claim that we have always managed to answer the research questions we set ourselves (or the ones that were set for us). So we now know a lot more – about designing, learning, pedagogy, capability, assessment and the rest - than we did when we started. Moreover, the fact that this research is frequently cited elsewhere might be taken as evidence that the work has some value in the educational world. But that is to take a somewhat limited view of things - not unlike the designer pointing to the new chair as if that by itself - is sufficient justification for all the hours, weeks and months of labour. Nonetheless, we would not wish to diminish the importance of these practical extensions to the stock of knowledge and understanding that collectively informs the educational game.

Perhaps a more significant 'so-what' argument might be made for the impact we have had on others' work. One of the biggest impacts of the APU research that started us off, lies in the huge circle of people that were directly and indirectly touched by the project. The research team of course, but also the very eminent Steering Group and the team of civil servants who oversaw the process; the teachers who administered the tests; the team of markers and so on. We have frequently bumped into them in the subsequent years - in various parts of the world - and they often point to the significance of the experience for them as growing professionals. And what goes for APU has subsequently applied in equal measure to all the projects, and for all the colleagues that we have interacted with in the process. We do not exclude from this circle the learners themselves, who so often find themselves at the uncomfortable cutting edge of one of our experiments. One of the values that has driven our research and development activities has been that the outcomes should always be such as to empower and enliven learners and their lot in school. It has been one of our greatest sources of satisfaction to see these learners - sometimes the strugglers rather than the stars – enjoying themselves and growing in confidence and capability. A comment that will live with us from the Assessing Design Innovation project was made by a teacher in South Wales as she handed us the evaluation sheets from her group who had taken part in the first version of the 6 hour activity.

End-piece

One of the remarks that I recall from the project review sheet was "...it shows what I can do in a positive way." – this was written by a pupil who is school phobic and finds school work difficult (Teacher Database A.M-J)

Another group that has inevitably been touched by our work has been the research students we have supervised or otherwise interacted with. Sometimes they found themselves recruited as researchers, but more frequently they were used as a critical sounding board partly for our benefit but also partly so that they could view their own work through a different lens. But sounding boards are not inert - they vibrate at the same frequency as the sound and their creative vibration is sustained beyond the life of the original stimulus. They have all gone their various ways - sometimes within and sometimes not within researchlike jobs – but they carry with them more than just their thesis and their beautiful robes. We would like to believe that they also carry some of the values and beliefs that have informed our work, welded to the skills and understandings that they developed through exposure to it. This second category therefore amounts to a rather bigger and more significant 'so-what', for quite beyond the substance of the research we have conducted and the findings we have published, our effects on the multiple circles of people with whom we have interacted could probably, justifiably, be described as substantial.

Which brings us to the third and final category of 'so-what'. And it is personal. Through the research projects outlined in this book we have tackled some tricky problems and dealt with some tricky clients; we have floated some whacky ideas and burned an awful lot of midnight oil to get them to work; we have argued endlessly with ourselves and with many others; we have run short of money on some projects and been grateful for the 'beerfloat' that was gradually accumulating in TERU from the small surpluses on others; we have shared our ideas with others throughout the world and sought to understand its significance for them as well as for us. In the process (which has for the most-part been hugely pleasurable and satisfying) we have ourselves grown. So that is the final 'so-what'. It was deeply enriching and it was great fun.

The final curtain

So now it is 30 years since we started out with the APU project, and 25 years since we formally established TERU at Goldsmiths as the research and development vehicle through which we would operate. In that time we have won research grants in excess of £6m...and maintained only a modest beer-float. Richard has now retired from Goldsmiths and Kay is reducing her time commitment –

though we both continue with some teaching, with research consultancy, and with writing.

But research is a hard, professional game that is not suited to part-timers. And for us, other attractions are waving from the wings. So after a good deal of heart-searching we have decided that the time has come to draw a line under TERU: To celebrate what has been done and to acknowledge that we have come to an appropriate endpoint. So TERU will be formally wound-up at the end of this academic year.

...or maybe not

The end of TERU does not signal the end of design education research at Goldsmiths. TERU has always existed within the Design department and over the years the department has grown a number of research strands. TERU was the first research unit - predominantly concerned with design & technology as a vehicle for learning (and mainly in the context or schools) - but others have close connections. As examples, the Pi Studio (Prospect and Innovation Studio) and the Interaction Research Studio are both research units with distinct agendas but with unifying threads of innovative design practices and methodologies.

Design education is a core concern of the department, and our design research has grown significantly with the expansion of Masters and PhD programmes. And perhaps inevitably, staff and students are increasingly asking questions about ways in which design capability is best nurtured. So, as TERU takes a bow and moves off the stage, we suggest that readers stay alert to the possibilities of Goldsmiths design education research appearing in many and various forms in the future. And – being Goldsmiths – you can bet it will be interesting.

Richard and Kay

...and in case anyone would like to make contact with us about anything in this edition or maybe about other things, please use our emails that will continue to live on:

r.kimbell@gold.ac.uk k.stables@gold.ac.uk