Images of Research

4th – 10th December 2015

The Hive, Worcester

Research staff and PhD students at the University of Worcester were invited to submit an image that captures and communicates their research, accompanied by a short supporting text written for a non-specialist audience. We asked for the image to be as visually appealing, creative and unique as possible and were particularly keen that all disciplines were represented, even if they are not traditionally perceived of as 'creative'.

The University of Worcester has a rich array of emergent and word-leading research. There has also been a significant growth in the quality of our research and the University was ranked as the most improved in the UK (by Research Fortnight, 2014). Collectively, this research has significant social, cultural, creative and economic impact, both regionally here in Worcestershire and the West Midlands but also further afield.

Organised by the University's Research School, *Images of Research* seeks to showcase and celebrate this research by bringing it to the public sphere. The submissions communicate complex research ideas through creative means from the sciences to the humanities, and the arts to education. This exhibition also seeks to inspire visitors in their own creativity and learning through engaging with the vibrant research taking place on their own doorstep.

Jacqueline Taylor, curator

Overall Winner's prizes were awarded for the best staff and student submissions judged by a professional panel, alongside a Public's Choice award. *For details of prize winners see our website www.worcresearcherdevelopment.com*

Richard Allen

On Anthropomorphism

This image is from the cover of a journal I co-edited with Shaun May called Performance Research *On Anthropomorphism*. It is from the aftermath of a performance I made for Mayfest in Bristol including multiple objects and actions. The journal concerns itself with artworks that explore the complex and mutually contradictory ideas located under the term 'anthropomorphism'. The term refers to something that resembles a human and our natural tendency to read human characteristics in the non-human object or animal. An interrogation of the concept suggests that there is not a singular line dividing the human from the non-human but a vast terrain that houses the comical, the uncanny and the abject.

Anthony Barnett

Conceptual Canvas

This 3-dimensional depiction of a conceptual canvas is an adaptation for research in education of elements of Cubist Art: rhizomatic combinations of ideas from conceived reality assembled as a radial model related to a broad based theme -

*Experience: the conceptual canvas represents the process of burgeoning experience. The canvas is an external form of an ongoing contemplative relationship to data collected serendipitously. The canvas is therefore in a state of change

*Metaphors: outcome space, criss-cross landscape, photo-montage

*Aesthetics: conceptual aesthetics, personal aesthetic

*Virtual landscape: evocative objects, satellite topics, creative analytic paradigm, generative social research.

Clare Bennett

Talking to Children about "Growing Up"

This research has explored the experiences and perceptions of fathers in talking about puberty, relationships and reproduction with their children. Eight fathers, of four ten year old girls and four ten year old boys respectively, volunteered to participate in face to face interviews. Their reports suggested that they did not see their children as potentially on the cusp of puberty but, instead, they perceived them as innocent and developmentally less mature than they really were. The fathers, therefore, largely avoided conversations about bodies, sex and relationships with their children as they felt that such information was superfluous to their needs.

Branwen Bingle

Making sense of people's stories
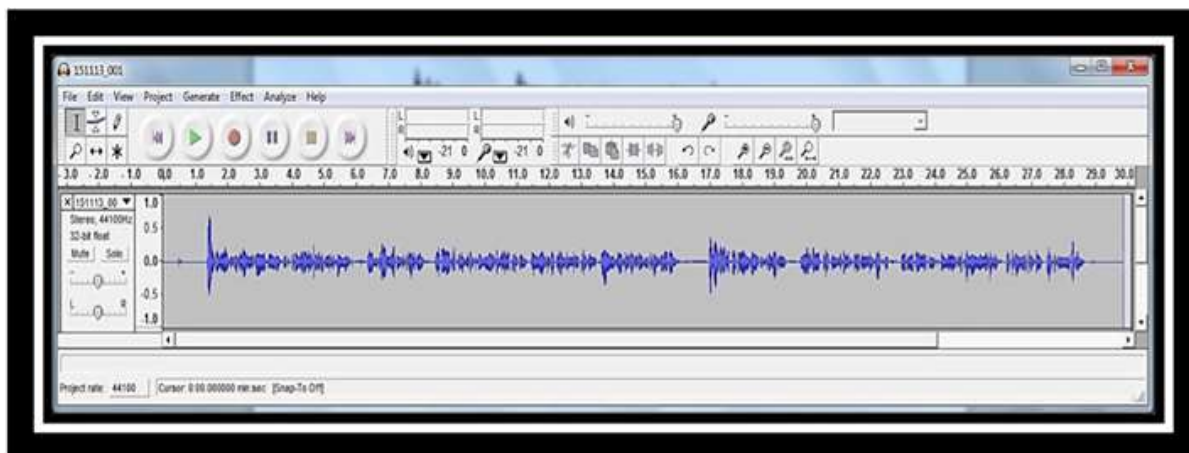
My research utilises grounded theory method within a social constructionist framework to respond to the question "Is there articulation between learners' notions of teaching and the narrative representations of teachers found in the children's literature utilised in schools?" This is a complicated way of saying I have listened to school pupils and university students talk about their perceptions of what a teacher is in real life and in narrative. This was achieved through storycrafting and repetory grid interviews; both techniques place importance on the participant's voice. My picture is the audio wave created when I say my thesis title aloud.

Katrina Blannin

Chromatic Interaction

How does a systematic approach to translating a depictive narrative painting (whether single image or multi-panelled) into a pictorial arrangement affect its chromatic configuration?

How can the investigation of a mathematical 'systems' painting approach (without symbols/depiction), dependent entirely on colour, be translated into new systematised painterly constructions?

I intend to examine, through my own practice, historical paintings that present a particular sequence of colour and geometry. Through a study of these works, I will explore connections between systematized artworks, as characterised by 1960s/70s colour driven 'systems' or constructivist painting. It will be important to discover how such systems are generated in order to a. orchestrate the eye and to b. comprehend a narrative without recourse to story or recognisable image.

Alice Burgin

The balancing act

The obesity epidemic can be characterised by sedentary behaviour and over-eating, leading to positive energy balance and weight gain. An imbalance can also result by compensating for healthy behaviours, such as over-eating after physical activity. However, the balance is more complex than a simple equation and is underpinned by many imperceptible factors. My research will explore and optimise the effects of physical activity on appetite control and subsequent energy balance. I will also approach commonly reported barriers to physical activity such as lack of time, as depicted here. Together, this research looks to contribute to knowledge of weight-management in public health.

Rachael Carrie

What is Resilience?

Building 'resilience' is critical for achieving sustainable development. Yet, the way this word is understood varies from place to place. Developing a shared understanding is important for setting sustainable development goals and measuring progress towards them. This photo was taken by Davie Nyasulu, a farmer from Northern Malawi, to communicate to researchers that having skills in addition to farming (like brick-laying), and owning a house are important resilience indicators: they help farmers "withstand uncertainties in everyday life". Participant photography is one method we are using to evaluate if and how sustainable development approaches help farmers become more resilient.

Sam Collett

What do you think of your university?

This is a research project building a tool which is designed to show the differences in perception between two or more groups of people. For example, do the bosses of a company consider their brand is very different to the shop floor, to their resources department, or most of all their customers? If so which aspects of their brand show the most difference?

By using a simple online app we can gauge how people think about a brand they are close to. We can then compare the data anonymously, and with some interactive graphs see the differences in those groups' opinions.

The photo shows our second year design students testing the app and equations on the brand that is "Worcester University", using Academics vs Students as the two groups. This is overlaid with the results of the first test. They have shown that even a small group can show enough trends to have a lively and interesting discussion.

Alan Dixon

Sustainable Agriculture in Malawi

In Northern Malawi, Mrs Ivy Trindade shows off the difference in quality between two types of maize. The healthy cobs on the right have been cultivated using 'conservation agriculture' methods involving simple and affordable soil and water management practices that reduce erosion, promote soil fertility, improve crop yields and enhance biodiversity. Malawi is one of several African countries where, through on-going collaborative research with local NGOs, we are exploring how people can adapt their land management practices and livelihood strategies in order to achieve sustainable development.

Sue Dutson

Once Upon a Time

Once upon a time, in a primary school not far from here the children had a 'Fairy Tale' day. Red Riding Hood and Princess Elsa were both in town.

Worcester Postgraduate student Hannah was on her final teaching practice. Her tutor, required to assess her performance against National Teaching Standards decided that words alone did not reflect the quality of the children's learning and sought to represent the classroom environment through a series of captioned illustrations.

The accompanying image represents just one of these illustrations forming the basis of further research to evaluate the impact and validity of living images.

Sean Edwards

Ghostsign

Produced as part of my work as Lead Artist on a public Commission with Future City in Cambridge Ghostsign is based on the early 20th century wall painted advertisements that were painted on the facades of the buildings. Relating to the past uses of the land this permanent proposal will emulate these adverts, layering an invisible history that once occupied the site of Clay Farm. The integration of the artwork into the fabric of the new architecture embeds the artwork into ones fundamental understanding of the site and therefore, without any pomposity or monumentality, becomes a significant contribution to the residents understanding of the site both conceptually and historically, but also geographically in their day-to-day usage of the paths and roads.

Kay Emblen-Perry

Do tenancy agreements influence commercial energy efficiency?

Despite high energy costs, access to energy saving information and energy efficient technology which is easily retrofitted to existing buildings, many organisations have not adopted these energy and carbon cost saving opportunities as UK Energy Policy encourages and financial logic expects. Other barriers could therefore exist.

This research offers a new perspective on this and investigates whether ownership structures of commercial buildings prevents owners and tenants from becoming energy efficient. It concludes that leases/rental agreements act as barriers to change and influence the building owners' and users' willingness to adopt efficiencies as the other party financially benefits from their investment.

Kay Emblen-Perry

Protecting the environment through games and toys

The drive for organisations to be environmentally friendly and socially responsible has created a demand for graduates with knowledge of sustainable business practices.

Research into learning and teaching suggests toys and games can positively engage students in learning.

By combining these two, this research aims to develop an online game that offers a new approach to teaching sustainability. The game, based on collaboration and cooperation to share natural resources (basic ingredients of corporate citizenship), is being developed to engage students in sustainable business decision making and help them identify opportunities for organisations to flourish whilst protecting people and the environment.

Natalie Farquharson

Skills Enhancement in Rural Communities

Healthcare professionals working in rural areas often have to travel considerable distances to access training. In order to address this issue Health Education West Midlands provided a mobile training facility which included a mobile clinical simulation classroom which was used by Clinical Tutors to provide training for a total of 1945 health care professionals in a range of clinical skills. Our research demonstrates that this innovation was highly valued by staff, it has brought about advancements in clinical practice and it has the potential to offer patients greater choice in being able to access care closer to home.

James Fisher

Margaret Morse

2015

Hand-printed woodcut on Japanese shoji paper

Edition of 10 plus 3 A/Ps

The woodcut is developed from a series of images Fisher has made, which explore the lives of notable women.

Margaret Morse (1883-1974) was one of the world's leading ornithologists, and author of Studies in the Life of the Song Sparrow (1937).

What she represents as far as Fisher is concerned is left open. She is manifestly concrete, yet also a ghost – we discern what she looks like from her delicately carved features, and discover her in afterimages, camouflaged by a bird.

John Francis

The life of a sports performance analyst

Working closely with British Wheelchair Basketball, my research involves exploring how the British national men's and women's squads utilise video as a learning tool to enhance the athletes and coaches understanding of the game. Adopting a reflective approach I have decided to specifically focus on how his interactions with the athletes, coaches and other support staff influences the utilisation of performance analysis as learning tool during the squads preparation for the Paralympic Games in Rio de Janeiro next year.

Claire Garabedian

My Musical Memories: Sharing, Engaging, Interacting, Connecting

This montage of photos represents a pilot project recently evaluated by the Association for Dementia Studies team. The Alzheimer's Society 'My Music Memories Reminiscence Programme' involved small numbers of people living with dementia together with volunteers sharing a series of 8 hour-long weekly sessions that included listening to familiar music, and looking at LP covers, and public and personal photographs relevant to the participants. What we learned was that sharing these activities within an intimate group elicits shared enjoyment, engagement, interactions, and identification; regardless of the cognitive capacity of the participants.

Karen Gray

The right tools for the job

What happens when an artist works with a person with dementia? People tell us it can feel good to sing, or dance, or paint a picture. But how do we begin to understand the real value of this engagement or to measure its effects? My research seeks to develop perspectives and tools that might help us to do this better.

This image was taken in a gallery between exhibitions; the trolley contains tools that will prepare it for the next show. Which will the curator choose, and why? And what role will the prepared space play in how we view the art itself?

Mark Gubb

For a Short Moment, I Felt Nothing

I made this image for an exhibition that had literary references running throughout. Specifically, this refers to Steinbeck's, 'Grapes of Wrath', and propaganda techniques employed by Chairman Mao. In relation to how my research translates in to a physical form, this is a good example; drawing several strands of reference together to create something that becomes a platform for wider discussion. In the context of this competition, it appears to be an appropriate visual metaphor for the process many of us are engaged in; an attempt to make sense of something that appears to be floating just out of reach.

Katherine Jones

Graduate Employability

My research aims to understand the value of industry placements to the ability of graduates to recognise, articulate and reflect on their skills development. In turn, how does this relate to graduate employability? Does this experience and developed ability to articulate skills development increase chances of graduate level employment? Are placements a necessary route to graduate employment? This research is using student's perceptions on employability rather than employers.

Jenny Lewin-Jones

Our changing language

Language is at the core of who we are and how we relate to other people. I research English language – the language all around us, part of our everyday lives. I am fascinated by how this language is evolving and how our use of language is changing. Communication between people changes as technological developments take place, and we're all involved in this process. I trace the history of words, the different styles of language we use, and ways we can avoid miscommunication.

Pippa Marland

The Island Imagination
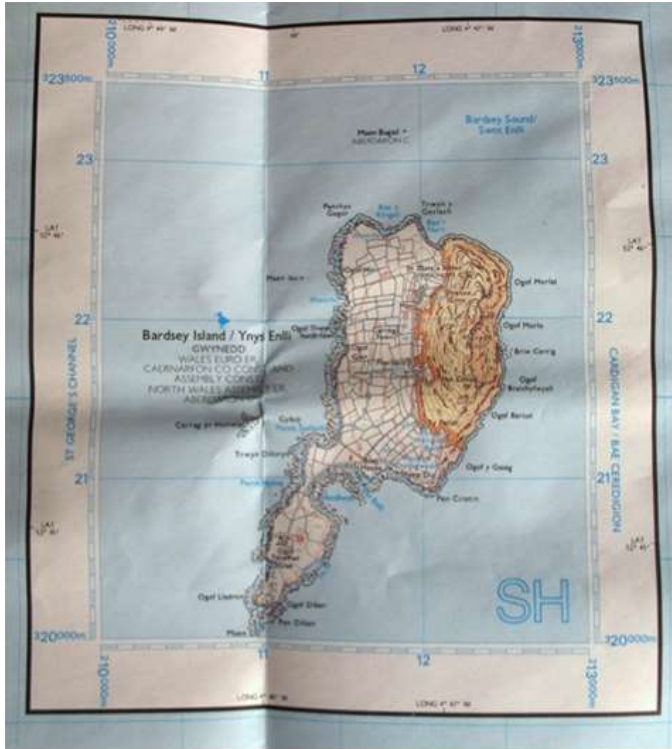
"Be not afeard; the isle is full of noises". My research is on 'islandess' - looking at the role of islands in the cultural imagination, and asking questions such as, what makes an island an island? Do islands have special qualities? What can literature tell us about them that maps can't? Does island writing reveal something about our broader relationship with fragile island-earth? It is a process that involves matching metaphor with materiality, trope with truth, in an attempt to learn from these islands of the imagination a little more about what it means to be human in the world.

David Martin

iTracker: Innovations in Attention Research

How we attend to emotionally-laden stimuli can be very beneficial. For example, people's attention is typically drawn to negative facial emotions (e.g. anger), thus making them more aware of potential threats to their wellbeing. Eye-tracking technology monitors pupil movement to record both fixations and saccades, measuring how we orientate (i.e. how we engage, disengage, and shift attention) to different stimuli, thus providing a thorough assessment of attention. This technology, which is becoming ever more advanced and affordable, allows us to make better conclusions about how individuals attend to and process different facial emotions.

Jessica Mathews

Do what you can

My research-based practice typically exists between curating / producing, learning and outreach, and teaching. My interests continue to lay very much with notions of the border or crossing-zone; perceptions and value of place; language; and processes of translation.

do what you can is one example of how my research interests play out - a proposition and a call to action for artists and curators, beginning with a series of practical exercises. Our cause is to interrupt, however briefly, the patterns of exchange between creative practitioners and place – creating new alternatives for these to exist.

Verity Postlethwaite

A month in, where to begin …
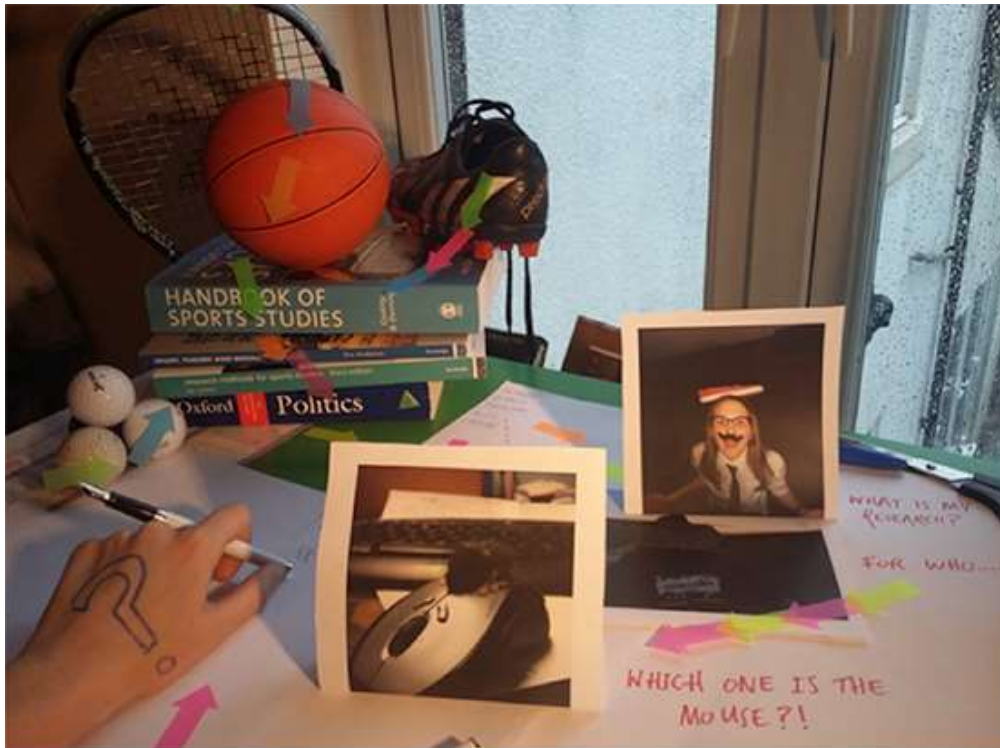
Each part of the photo is connected by arrows to represent the organised chaos in my mind, as I am a matter of weeks into my PhD. There are social science books with sports equipment showing my topic and area. The pictures and questions are the processes of understanding how I have got to the beginning of a PhD. I have in my hand a pen but it is not active and it has a question mark on it. This encapsulates linking and connecting my past experiences, present questions, and future answers I seek to find in my research.

Hazel Richards

An evaluation of Special Educational Needs Co-ordinators' perceptions of Education and Health Care Plans

Special Educational Needs Co-ordinators are responsible for the assessment and provision of support for children with special educational needs and disabilities in every school and early years setting. They have multiple roles to play - such as chief cook and bottle washer, to expert, construction worker, front-line personnel, 'nice lady' and explorer. Education and Health Care Plans seek to set out and meet the needs of children with complex needs in our schools, and are a new documentation, introduced in September 2014. This research seeks to explore and uncover the reality of implementing Education and Health Care plans, considering the multiple factors and professions involved. By researching the perceptions and lived reality in this domain, it is hoped that the conflicts and gaps, for example, in training needs, will be identified.

Gordon Smith

No holding back!

80% of the population will have low back pain (LBP) at some point. STarTBack is a 9 item questionnaire which assists clinicians in identifying the most appropriate way to manage patients with LBP.

STarTBack has successfully been implemented within the physiotherapy service at Evesham Community Hospital. Patients with LBP are empowered. They will be able to jump back into their normal lives and return to doing what they enjoy most as captured in this painting – no holding back.

Charlotte Elizabeth Taylor

Do healthy eating programmes really persuade children to swap sweet snacks for fresh fruit?

Increases in childhood obesity and poor fruit and vegetable (FV) consumption have paved the way for school-based interventions to change children's dietary habits. However, do these interventions really encourage children to swap sugary snacks for FV? A study of 2,433 5-11 year olds found that children who took part in a healthy eating intervention did eat more FV, however they were still eating calorific foods. Sugary snacks were not replaced by healthy alternatives; children were simply eating more. If school-based interventions are to contribute to reducing calorific intake, targeting FV consumption alone is not sufficient to change children's eating habits.

Fleur Visser

Upton Warren's inland saltmarshes: a bird's eye view

Birdwatchers at a popular hide in Upton Warren bird-watching reserve were recently surprised by a colourful kite, used by University of Worcester Geography staff to take aerial photographs of the of this former salt extraction area. Black and white markers can be seen on the ground, which are used to create a 3D model from the photos, showing the pool beds that are being exposed while Worcestershire Wildlife trust staff artificially lower the water levels of the marshes. The model will help understanding the submerged topography and localised springs and will benefit management the nature reserve for the long-term.