

# DR KERRY DEE HUDSON

RESEARCH OFFICER

✉ **Work:** Department of Psychology and Human Development, Institute of Education  
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🌐 <https://sites.google.com/site/drkerryhudson/home>

## EDUCATION

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DEGREE	<b>PhD</b>	October 2007- January 2011
UNIVERSITY	<b>University of Reading, UK</b>	
CLASSIFICATION	<b>Awarded July 2011</b>	
FUNDING	<b>Economic and Social Research Council (ESRC) 1+3 Collaborative Award in Science and Engineering (CASE) studentship with funding from the Williams Syndrome Foundation UK</b>	
	<b>Thesis Title</b> Factors affecting drawing ability in Williams syndrome and typical development.	
	<b>Supervisors:</b> Dr Emily Farran (Institute of Education) and Dr Andrew Glennerster (University of Reading).	
	This thesis presented research in the understanding of drawing and visual-spatial ability in Williams syndrome and typically developing individuals, an area which is greatly under-researched. A series of novel paper- and computer-based tasks were devised to assess attention to the to-be-copied model, spatial frames of reference, drawing and construction strategies, graphic planning and facilitation of drawing performance. Studies in this thesis refuted the predominant, overly reductionist theory of visual-spatial behaviour in Williams syndrome and described a new explanation of drawing performance in Williams syndrome. The thesis culminated in development of facilitation techniques for drawing performance in Williams syndrome and a new model of drawing. Models of drawing are poorly conceptualised and are scant within published literature, therefore a new model of drawing is beneficial for neuropsychological assessment and also for remediation strategies in educational settings.	
DEGREE	<b>MSc Research Methods in Psychology</b>	September 2006- September 2007
UNIVERSITY	<b>University of Reading, UK</b>	
CLASSIFICATION	<b>Merit</b>	
FUNDING	<b>ESRC 1+3 CASE Studentship</b>	
	<b>Dissertation Title</b> Investigating visuospatial ability in Williams syndrome using the Dot-to-Dot task: The role of segmentation and colour in spatial localisation.	
	<b>Supervisor:</b> Dr Emily Farran (University of Reading).	
DEGREE	<b>BSc(Hons) Psychology with Neuroscience</b>	September 2003- June 2006
UNIVERSITY	<b>University of Leicester, UK</b>	
CLASSIFICATION	<b>2:i</b>	
	<b>Dissertation Title</b> The role of verbalisation instructions and processing style in face and orchid recognition.	
	<b>Supervisor</b> Dr Kate Garland (University of Leicester).	

## EMPLOYMENT

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JOB TITLE	<b>Research Officer</b>	April 2013- 31st March 2014, 1.0 fte
EMPLOYER	<b>Institute of Education, University of London</b>	
SALARY	<b>Grade 7, £34,590 pa</b>	
	This project aims to develop virtual training techniques in individuals with Williams syndrome, Down's syndrome and typically developing children to improve their route-learning abilities. I work closely with a programmer to devise virtual environments to train participants to improve their route-learning skills. I also recruit and test participants in their homes, in the lab and at school. I have developed a spatial anxiety questionnaire as well as developing serious games to train route learning and travel skills.	
JOB TITLE	<b>Post-Doctoral Research Assistant</b>	September 2012- March 2013, 0.6 fte
EMPLOYER	<b>Institute of Education, University of London</b>	
SALARY	<b>Grade 6, £38,411 pa</b>	
	I co-wrote the grant for this project with Dr Emily Farran, funded by Autours des Williams. The project was the first of its type to assess depth perception and action in depth in Williams syndrome and typical development.	

JOB TITLE	<b>Research Assistant</b>	June 2012- February 2012, up to 0.4 fte
EMPLOYER	<b>University of Reading, UK</b>	
SALARY	<b>Grade 6, £27,123 pa</b>	

In this position I assisted with data processing and analysis following additional data collection from my first post-doctoral position with Dr Vesna Stojanovik and Dr Jane Setter.

JOB TITLE	<b>EEG and Eye Tracking Programmer</b>	May 2012-October 2012, up to 1.0 fte
EMPLOYER	<b>University of Reading, UK and Neurosense</b>	
SALARY	<b>Grade 7, £32,365 pa</b>	

This was Knowledge Transfer Partnership between Neurosense and the Centre for Integrative Neuroscience and Neurodynamics at the University of Reading. I was brought onto the project to develop a paradigm to simultaneous record eye tracking and electroencephalography (EEG) data to attempt to differentiate between television adverts based on their resulting unit sales after airing of the advert.

JOB TITLE	<b>Research Assistant</b>	April 2011- February 2012, 1.0 fte
EMPLOYER	<b>University of Reading, UK</b>	
SALARY	<b>Grade 6, £27,578 pa</b>	

This was a British Academy funded project working with Dr Vesna Stojanovik and Dr Jane Setter that examined the melody of speech (prosody) in language acquisition and processing in four to nine year olds with Williams syndrome, Down's syndrome and typical development, using computer based tasks and eye tracking techniques.

## TEACHING TRAINING

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### **February- March 2014** *Training the Trainer, Institute of Education*

The course provided training in designing and structuring lectures and effective teaching methods.

## TEACHING EXPERIENCE

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### **2014** *Sessional Lecturer and Seminar Leader, Institute of Education*

In May 2014 I am due to deliver lectures and seminars for a module entitled Introduction To Psychology II: Individual Social and Biological Psychology. These lectures introduce students to cognitive neuroscience, brain imaging techniques and neurophysiology.

### **2011** *Technical Advisor*

I have instructed postgraduate and post-doctoral students and members of staff in use of experimental presentation software and eye tracking techniques. This was in small groups and also through a freely-available support document that I authored which clearly explained how to set up eye tracking studies using Tobii eye trackers and Eprime, Presentation and Matlab.

### **September 2006-April 2010:** *Demonstrator/ Teaching Assistant*

I demonstrated statistics and research methods to students on Bachelor's and Masters degrees, as well as members of staff. This was during workshops and involved demonstrating basic and advanced statistical theory and how to conduct statistical analysis using SPSS. I also assisted small groups of Undergraduates in devising and analysing various experimental tasks.

### *Statistics Consultant*

As a statistics consultant I advised Undergraduate students working on projects and dissertations in understanding their data and how to perform and interpret statistical analyses. This work ranged from one-to-one sessions to groups of four or five students in face-to-face and email sessions.

### *Project Marker*

I regularly marked Undergraduate projects during the entirety of my PhD. This role involved providing students with feedback on their work and how to correctly format and structure research reports. Additionally I provided email and one-to-one support for students that required extra assistance in writing research reports.

### *Invigilator*

I invigilated a range of Psychology Bachelor's and Masters degree exams; this was both on my own and as part of a small team.

### **Book Chapter**

Hudson, K. D., & Farran, E. K. (2011). Chapter Nine: Executive function and motor planning. In Farran, E. K., & Karmiloff-Smith, A. (Eds). *Neurodevelopmental disorders across the lifespan: Lessons from Williams Syndrome*. Oxford: Oxford University Press.

### **Peer-Reviewed Journal Articles**

Hudson, K. D., & Farran, E. K. (2013). Looking around houses: Visual attention when drawing in Williams syndrome and typical development. *Research in Developmental Disabilities, 34*, 3029-3039.

Hudson, K. D., & Farran, E. K. (2013). Facilitating complex shape drawing in Williams syndrome and typical development. *Research in Developmental Disabilities, 34* (7), 2133-2142.

Hudson, K. D., & Farran, E. K. (2011). Drawing the line: Graphic strategies for simple and complex figures in Williams syndrome and typical development. *British Journal of Developmental Psychology, 29*(4), 687-706.

Hudson, K. D., & Farran, E. K. (Under Review). Perceiving and acting in depth in Williams syndrome and typical development. *Developmental Medicine & Child Neurology*.

Hudson, K.D., & Farran, E.K. (Under Review). Thinking inside the box: Orientation cues and spatial frames of reference for drawing in Williams syndrome and typical development. *Brain & Cognition*.

Hudson, K.D. (In Prep.). Can neurodevelopmental disorders inform models of drawing and neuropsychological tests?

Hudson, K.D. (In Prep.). Drawing from the mind's eye: The role of mental imagery in drawing in Williams syndrome and typical development.

Stojanovik, V., Setter, J., & Hudson, K. D. (In Prep.) Processing and understanding of prosody in Williams syndrome, Down's syndrome and typical development.

Hudson, K. D., Farran, E. K., Courbois, Y., & Blades, M. (In Prep.). Investigating the role of anxiety in wayfinding in Williams syndrome and Downs syndrome.

Courbois, Y., Hudson, K. D., Farran, E. K., & Blades, M. (In Prep.). Understanding exploration strategies in virtual environments in Williams syndrome, Down's syndrome and typical development.

Farran, E. K., Hudson, K. D., Courbois, Y., & Blades, M. (In Prep.). Development of cognitive maps of virtual environments in typical development.

### **Magazine Articles**

*WSNews Magazine, Medical Section*. 2003- Present.

This publication is distributed to members of the Williams Syndrome Foundation UK. I write short articles outlining my research in order to keep families and individuals with Williams syndrome abreast of work that I am involved with.

### **Conference Proceedings**

Hudson, K.D., & Farran, E.K. (2009). Graphic strategies in Williams syndrome and typically developing children, *Cognitive Processing, 10*(s2), S514-S155.

## Conference Presentations

*Looking around houses: Attention to a model when drawing in Williams syndrome and typical development.* Paper presentation at British Psychological Society Developmental Section Conference 2010. Goldsmiths University, London, UK.

*Graphic planning ability in Williams syndrome.* Paper presentation at British Psychological Society Developmental Section Conference 2009. University of Nottingham, UK.

*Graphic strategies in Williams syndrome and typically developing children.* Paper Presentation at Fourth International Conference on Spatial Cognition 2009, La Sapienza, Rome Italy.

*Visuospatial Construction and Drawing Ability in Williams Syndrome.* Poster presentation at British Psychological Society Developmental Section Conference 2008. Oxford Brookes University, UK.

## Invited Seminars

*Drawing in Williams Syndrome.* December 2009. Birkbeck University Developmental Neurocognition Lab, London.

*Drawing in Williams syndrome and typical development.* February 2010. School of Psychology and Clinical Language Sciences Seminar, University of Reading.

## JOURNAL EDITING EXPERIENCE

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**2014 Research Topic Editor** *Frontiers in Psychology*

I am currently an editor for a Research Topic in *Frontiers in Psychology* on spatial navigation in atypical development. I wrote the proposal for this special edition and sourced potential contributors to the Research Topic. I will also be reviewing and selecting articles for publication in *Frontiers in Psychology*.

## OUTREACH ACTIVITY

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*Science Museum*, July 2014.

This will involve demonstration of experiments assessing spatial navigation in virtual environments, as well as small group seminars to discuss spatial navigation.

*Psychology4Students*, *British Psychological Society*, December 2013.

This involved student recruitment for a new Institute of Education Undergraduate course and demonstration of Psychology experiments to engage students.

## GRANTS

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### **Research Grants**

Farran, E.K. & Hudson, K.D. (2012), *Understanding depth perception in Williams syndrome*. Funding from Autours Des Williams (€13,588).

### **Conference Travel Grants**

I have received grant awards (up to £2000) from the following bodies to attend domestic and international conferences to present my work: Experimental Psychology Society, Grindley Grant; University of Reading; Williams Syndrome Foundation UK; British Psychological Society (I was awarded one of only two awards to travel to a conference to present a paper in 2009.).

## STANDARDISED TASKS

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I am trained to use the following standardised tasks:

*Raven's Coloured Progressive Matrices* (Raven, 1993); *British Picture Vocabulary Scale* (Dunn, Dunn, Whetton & Burley, 1997); *Pre-school and standard Clinical Evaluation of Language Fundamentals* (Semel, Wiig & Secord, 1995); *Test of Receptive Grammar* (Bishop, 1983); *Profiling Elements of Prosodic Systems Children* (Peppé & McCann, 2003); *Frisby Stereotest (Near)* (Frisby, Davis & McMorrow, 1996).

**Operating Systems:** Windows, Mac.

**Word Processing:** Microsoft Office applications and Open Office equivalents, LaTeX.

**Experimental Programming:** Presentation, OpenSesame, EPrime, SuperLab Pro, Tobii Studio, DMDX, PsychoPy, MATLAB and Cogent.

**Data Analysis:** SPSS, MATLAB, some R, Scilab and Octave.

**Computerised Drawing Measurement:** ImageJ, MATLAB.

**Linguistic Software:** Praat, Audacity, Adobe Audition.

**Image Manipulation:** GIMP, PhotoShop.

**Eye Tracking:** Tobii systems.

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## OTHER PROFESSIONAL QUALIFICATIONS

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*Diploma in Cognitive Hypnotherapy, National Council for Hypnotherapy Accredited, October 2013- July 2014, Quest Institute, Regent's University.*

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## RESEARCH INTERESTS

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Drawing, Williams syndrome, neuroscience, hypnosis, development, neurodevelopmental disorders, assessment tools, neuropsychology, eye tracking techniques, motor control, executive function, remediation techniques.

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## HOBBIES AND INTERESTS

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I have a keen interest in hypnosis for clinical and research use and I am a member of the National Council of Hypnotherapy. I enjoy music and play a variety of instruments; I also enjoy building and designing stringed instruments. I am currently teaching myself British Sign Language and have recently taken up Kendo. I very much enjoy films and am completing an evening course with the University of Oxford in British Gothic horror film analysis. Cooking, knitting, reading, art, crafts, photography and walking are some of my favourite forms of relaxation. I am a keen volunteer and have worked with organisations such as the Alzheimer's Society, Age Concern and Somerset Gay and Sexual Health Services; more recently I knit hats for premature babies in the Royal Berkshire Hospital and am a Tree Warden, helping with conservation in Reading.

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## REFEREES

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