

# EABG

# 2019

Experimental Analysis of Behaviour Group UK

LONDON MEETING: 15<sup>TH</sup> TO 17<sup>TH</sup> APRIL 2019

## CONFERENCE PROGRAMME

Organised by School of Psychology and School of Education,  
Bangor University, Wales

*Venue: Department of Psychology  
University College of London*



# 2019 INVITED SPEAKERS

## PROFESSOR FERGUS LOWE MEMORIAL KEYNOTE ADDRESS

### Expanding Behavior-Analytic Services to NeuroRehabilitation Settings

Megan Heinicke (California State University, Sacramento)

Each year in the United States, approximately 2.5 million Americans sustain a traumatic brain injury. Many of these brain injury survivors will present with long-term disability involving physical, behavioral, cognitive, and emotional consequences that can interfere with rehabilitative goals, independent living, and quality of life. Behavior analysts are well-equipped to expand their scope of practice outside of developmental disabilities to serve this growing and historically underserved population. This talk aims to 1) describe the epidemiology of brain injury, 2) offer a summary and examples of the current behavior-analytic literature in brain injury rehabilitation settings, and 3) provide optimal strategies for diversifying a behavior analyst's consumer base to serve brain injury survivors while continuing to meet the current BACB® Professional and Ethical Compliance Code.

#### Biography:

Dr. Megan Heinicke received her Ph.D. in Cognitive and Behavioral Sciences from Auburn University under the advisement of Dr. James Carr. Dr. Heinicke received her Bachelor's degree from Western Michigan University and her Master's degree from Auburn University. Currently, Dr. Heinicke is an assistant professor in the Psychology Department at California State University, Sacramento where she teaches undergraduate and graduate courses in applied behavior analysis and developmental disabilities. Dr. Heinicke is also a Board Certified Behavior Analyst with experience in various settings including neurorehabilitation settings, alternative schools, clinic settings, and foster and adult family home agencies. Dr. Heinicke has published research articles in peer-reviewed journals such as the Journal of Applied Behavior Analysis, Behavior Analysis in Practice, The Behavior Analyst, Brain Injury, and The Analysis of Verbal Behavior. Her current research interests include the use of behavioral interventions within neurorehabilitation settings, behavior-analytic teaching strategies for improving public speaking and learning outcomes for college students, verbal behavior, teaching community safety skills to adults with intellectual disabilities, and stimulus preference assessments.



## **Behavioural gerontology: Applying our science to older people and people with dementia in the UK**

Rebecca A. Sharp (Bangor University, Wales, UK)

There is a growing interest in both the UK and internationally in the application of behaviour analysis to support older adults, including adults with intellectual disabilities and dementia. A small but expanding body of literature shows the effectiveness of functional assessment methods, function-based interventions, and environmental changes to improve the quality of life in older adults. However, the current research is limited to specific topographies of behaviour, is conducted in care settings rather than in family homes, and our understanding of the limits of operant mechanisms for the behaviour of older adults is limited. In this talk, Rebecca will present a 'stock take' of what we understand about how people with dementia interact with their environment, suggest avenues for future applied and translational research, and discuss practice issues specific to older adults in a UK context.

### **Biography:**

Rebecca is a Board Certified Behavior Analyst (Doctoral level) and New Zealand Registered Psychologist who received her training from the University of Auckland. She is a Senior Lecturer and the Director of the Applied Behaviour Analysis Programme at Bangor University in Wales. She joined the UK Society for Behaviour Analysis Board of Directors in 2019. Rebecca has been an invited speaker in research and clinical settings around the world, and her research interests include measurement, behaviour analytic approaches to working with people with dementia and traumatic brain injury, people with comorbid dementia and developmental disabilities, the translation of clinical and laboratory research to applied settings, and teaching behaviour analysis. Clinically, Rebecca has worked with recidivist youth offenders, with children with brain injury, adults with dementia, and adults and children with IDD.



## **Sharland Foundation Invited Address: Small cogs, big machine.**

Nick Gore (University of Kent, UK)

The Sharland Foundation Developmental Disabilities Research and Impact Network (SF-DDARIN) aims to improve the lives of people with learning disabilities through behavior analysis. Nick will summarise key developments and work streams that have emerged through this innovative way of working in the last two years. Within this context he will then focus on the evolution of Positive Behavioural Support (PBS) from a basic science of human behavior through stakeholder collaboration in the UK. This will include consideration of research and strategic activities that have been initiated in recent years. Nick will conclude by identifying potential strategies and research questions that may support the continued development and implementation of PBS in the future.

### **Biography:**

Nick is a clinical psychologist, senior lecturer and researcher at Tizard Centre University of Kent. His work focuses on supporting children and adults with intellectual and developmental disabilities, together with their families and staff teams. Nick has a special interest in early intervention, challenging behavior and development of a Positive Behavioral Support Framework. He has produced a range of research, conceptual and practical publications in these areas and helped to develop and maintain national stakeholder networks in the field and the implementation of PBS in Norway. Nick is the lead developer for the Early Positive Approaches to Support programme and a member of the Sharland Foundation Developmental Disabilities Research and Impact Network.



DAY 1: MONDAY 15<sup>TH</sup> APRIL: MORNING SESSION

REGISTRATION (8:45-9:30 UCL FOYER)		
TIME	LECTURE THEATRE: GROUND G03	LECTURE THEATRE: LOWER GROUND
	<p><b>Symposium: Behaviour analysis and older adults</b>                      Chair: Rebecca Sharp (Bangor University)  <b>BCBA CE: 1.5</b></p>	<p><b>Symposium: Stimulus equivalence research and classical conditioning</b>                      Chair: J. Carl Hughes (Bangor University)  <b>BCBA CE: 1.5</b></p>
9:30	<p><b>Comparing preference for edible and leisure items with adults with dementia and adults with intellectual disabilities and dementia</b>                      ZOE R. LUCOCK, Rebecca A. Sharp, &amp; Robert S. P. Jones (Bangor University)</p>	<p><b>Do Equivalence Relations Underlie Children's Rapid Learning of Listener and Speaker Relations?</b>                      NEIL DUGDALE (Leeds Beckett University)</p>
9:50	<p><b>Simple antecedent manipulations that can aid in the future of clients with a diagnosis of advanced dementia</b>                      KARLA J. PELLING, Rebecca A. Sharp, &amp; Carolien Lamers (Bangor University)</p>	<p><b>Disentangling learning and inference in stimulus equivalence formation II</b>                      DAVID DICKINS (University of Liverpool)</p>
10.10	<p><b>Measuring the impact of headphones, background music and social interactions on reducing vocalisations for a client with neurocognitive disorder</b>                      KYLA DOUTHWAITE, Rebecca A. Sharp, &amp; Carolien Lamers (Bangor University)</p>	<p><b>A Comparison of Two Discrimination Training Procedures: Is Faulty Stimulus Control A Risk?</b>                      BRITTANY DISANTI, Svein Eikeseth, &amp; Sigmund Eldevik (Oslo Metropolitan University)</p>
10:30	<p><b>Reducing 'rude' behaviour in a woman with dementia: Presenting demands as requests for help</b>                      EMMA WILLIAMS, Rebecca A. Sharp, &amp; Carolien Lamers (Bangor University)</p>	<p><b>Physiological valence mediators underlying subliminal conditioning of appetite motivations</b>                      MICAH AMD (Federal University of Sao Carlos)</p>
<b>REFRESHMENTS (floor 3 common room) 10:50-11:20</b>		

DAY 1: MONDAY 15<sup>TH</sup> APRIL: MORNING SESSION (continued)

TIME	LECTURE THEATRE: GROUND G03	LECTURE THEATRE: LOWER GROUND
	<p align="center"><b>Symposium: ABA in special schools</b> Chair: Marguerite Hoerger (Bangor University) <b>BCBA CE: 1.5</b></p>	<p align="center"><b>Symposium: Verbal behaviour research</b> Chair: Emily Tyler (Bangor University) <b>BCBA: 1.5</b></p>
11:20	<p><b>Integrating ABA into a Special School Curriculum: The model and preliminary evidence</b> MARGUERITE HOERGER, Corinna Grindle, Helena O'Boyle, &amp; Laura Pitts (Bangor University)</p>	<p><b>Methodological Advances in Testing and Training Analogical Responding in Young Children</b> ELLE B. KIRSTEN &amp; Ian Stewart (National University of Ireland, Galway)</p>
11:40	<p><b>Extending the evidence base: a control group evaluation of the BESST Model</b> LAURA PITTS, Stacey Gent, &amp; Marguerite Hoerger (Bangor University)</p>	<p><b>Cross-domain transfer of relational operant training effects in primary school children</b> Shane McLoughlin, Antonina Pereira, TERESA MULHERN, Ian Tyndall (University of Chester)</p>
12:00	<p><b>Evaluating the BESST model for students with Severe Learning Disabilities</b> HANNAH WALLEY &amp; Marguerite Hoerger (Bangor University)</p>	<p><b>Testing the effects of multiple exemplar instruction on the induction of joint incidental bidirectional naming in children diagnosed with autism</b> EMMA HAWKINS, Grant Gautreaux, &amp; Mecca Chiesa (Tizard Centre)</p>
12:20	<p><b>An analysis of the variables that affect successful BESST Model implementation</b> HELENA O'BOYLE &amp; Marguerite Hoerger (Bangor University)</p>	<p><b>Effects of a flexibility training on the reduction of prejudice</b> TÁHCITA M. MIZAEAL, Sam William Gibson, Bryan Roche, João H. de Almeida, &amp; Julio C. de Rose (National University of Ireland, Maynooth)</p>
<b>LUNCH 12:40 – 1:40</b>		

DAY 1: MONDAY 15<sup>TH</sup> APRIL: AFTERNOON SESSION

	LECTURE THEATRE: GROUND G03	LECTURE THEATRE: LOWER GROUND
	<p><b>Symposium: Assisting People with an Intellectual Disability to Self-manage Healthy Lifestyle Choices</b> Chair: Claire McDowell (Ulster University) <b>BCBA CE: 1</b></p>	<p><b>Symposium: Reading interventions</b> Chair: Emily Tyler (Bangor University) <b>BCBA CE: 1</b></p>
1:40	<p><b>Environmental factors that potentially influence weight loss in adults with intellectual disabilities (ID); A qualitative comparison between two groups</b> LAURA SKELLY, Phil Smyth, Mark Donnelly, Geraldine Leader, Julian Leslie, Liz Simpson &amp; Claire McDowell (Ulster University)</p>	<p><b>Supporting parent implementation of an online reading programme with struggling readers: a cluster-randomised controlled trial</b> SARAH ROBERTS, Emily Tyler, Richard Watkins, J Carl Hughes, &amp; Richard Hastings (Bangor University)</p>
2:00	<p><b>Growth Rates in Food Knowledge for Adults with Intellectual Disabilities (ID); Flashcard Learning versus Technology-Based Learning</b> LAURA SKELLY, Phil Smyth, Patricia Cusack, Sarah Loughran, Mark Donnelly, Geraldine Leader, Julian Leslie, &amp; Claire McDowell (Ulster University)</p>	<p><b>North Wales Repeated Reading Project (NW-RRP): A comparison of two reading fluency interventions in mainstream primary schools</b> EMILY TYLER, Mike Beverley, Sarah Roberts, Richard Watkins, Carl Hughes &amp; Richard Hastings (Bangor University)</p>
2:20	<p><b>HealthyTaps: A new way for people with an ID to self-manage their weight</b> PHIL SMYTH, Laura Skelly, Mark Donnelly, Geraldine Leader, Julian Leslie, Liz Simpson &amp; Claire McDowell (Ulster University)</p>	<p><b>A Comparison of Two Approaches to Supplementary Instruction for Children "At-Risk" of Reading Failure</b> CATHERINE STOREY, Claire McDowell, &amp; Julian Leslie (Ulster University)</p>
<b>REFRESHMENTS (floor 3 common room) 2:40 – 3:10</b>		

	LECTURE THEATRE: LOWER GROUND
3:10-4.10	<p style="text-align: center;"><b>INVITED SPEAKER</b></p> <p><b>BEHAVIOURAL GERONTOLOGY: APPLYING OUR SCIENCE TO OLDER PEOPLE AND PEOPLE WITH DEMENTIA IN THE UK</b> DR REBECCA SHARP, Bangor University</p> <p style="text-align: center;"><b>BCBA CE: 1</b></p>
<b>DAY END (social meeting in Tavistock Hotel bar from 6:00 onwards)</b>	

DAY 2: TUESDAY 16<sup>th</sup> APRIL: MORNING SESSION

<b>REGISTRATION (8.30 – 9.00) UCL Foyer</b>			
TIME	LECTURE THEATRE: GROUND G03	LECTURE THEATRE: LOWER GROUND	ROOM 305
	<b>Symposium: Interventions for children with ASD</b> Chair: Stacey Hunter (BCUHB) <b>BCBA CE: 1.5</b>	<b>Symposium: Precision Teaching Interventions and Verbal Behaviour</b> Chair: J. Carl Hughes (Bangor University) <b>CE: 1.5</b>	<b>Session: School-wide Positive Behaviour Support</b> Marguerite Hoerger (Bangor University) <b>BCBA CE: 2</b>
9:00	<b>A quantitative analysis of procedures for facilitating categorization skills among persons with autism</b> TERESA MULHERN (University of Chester)	<b>Implementation Support Improves Outcomes of a SAFMEDS Numeracy Strategy: A Cluster-Randomized Controlled Trial</b> KAYDEE OWEN, Stacey Hunter, Richard Watkins, Joshua Payne, Tom Bailey, Richard Hastings, J. Carl Hughes (Bangor University)	Please note that this session will run from 9:00 to 11:00
9:20	<b>Water safety for children with Autism Spectrum Disorder (ASD): How can applied behaviour analysis help?</b> CATRIONA MARTIN & Karola Dillenburger (Queen's University Belfast)	<b>Using Precision Teaching to improve basic mathematical skills of students with disabilities</b> ATHANASIOS VOSTANIS, Mecca Chiesa, Ciara Padden, & Peter E Langdon (Tizard Centre)	
9.40	<b>Community Implementation of Early Behavioral Intervention: Higher Intensity Gives Better Outcome</b> SIGMUND ELDEVIK, Kristine Berg Titlestad, Hege Aarlie, & Roy Tønnesen (Oslo Metropolitan University)	<b>Using Precision Teaching to increase fluency of Makaton signing in a mainstream nursery</b> Ivanah Edquiban, Angel Tan, Jenny Tan, BETHAN MAIR WILLIAMS (Bangor University)	
10.00	<b>Discussant:</b> Stacey Hunter	<b>A systematic review and meta-analysis of the effect of listener training for establishing intraverbals</b> Line Børtveit, Oda Marie Vister, & BØRGE STRØMGREN (Oslo Metropolitan University)	
<b>REFRESHMENTS (floor 3 common room) 10:20-11.00</b>			

DAY 2: TUESDAY 16<sup>th</sup> APRIL: MORNING SESSION

TIME	LECTURE THEATRE: GROUND G03	LECTURE THEATRE: LOWER GROUND
	<p align="center"><b>Symposium: Applications of behaviour analysis</b>            Chair: Rebecca Sharp (Bangor University)  <b>BCBA CE: 1</b></p>	<p align="center"><b>Symposium: ABA in multi-disciplinary settings</b>            Chair: Stacey Hunter (BCUHB)  <b>BCBA CE: 1</b></p>
11:00	<p><b>Flipping the classroom at university level using a concurrent-choice procedure</b>            BRETT WINSPER &amp; Rebecca Sharp (Bangor University)</p>	<p><b>“I know how to teach, but not what to teach”: an investigation into the current attitudes and beliefs held by Board Certified Behaviour Analysts and Speech and Language Therapist in the UK</b>            TARA E. MILLAN BROPHY &amp; Bethan Mair Williams (Queen’s University Belfast)</p>
11:20	<p><b>Using applied behaviour analysis to break down the barriers of self-segregation</b>            GILL LEGG &amp; Louise Auld (NTW NHS Foundation Trust)</p>	<p><b>Be better with echoes: Using a multi-disciplinary approach to assess and support speech development</b>            CYNTHIA EWERS-COBB, TARA E. MILLAN-BROPHY, &amp; ROCHELLE GRAY</p>
11.40	<p><b>A simultaneous presentation and fading procedure treating food selectivity in children with autism spectrum disorder</b>            MARGARET KIRK &amp; Katerina Dounavi (Queen’s University Belfast)</p>	<p><b>Using a workforce development approach to increase the use of positive behavioural support in the North East and Cumbria</b>            ALISON BRANCH, Melissa Beard, &amp; Lynne Jones (NHS Transforming Care Partnership - North East and Cumbria)</p>
<p><b>SF-DDARIN</b>            Network meeting (11.30 - 1.30: Room 305) CLOSED MEETING</p>		
<p><b>LUNCH 12.00-1.30</b></p>		



DAY 2: TUESDAY 11<sup>th</sup> APRIL: AFTERNOON SESSION

	<b>LECTURE THEATRE: LOWER GROUND FLOOR</b>
1:30	<p><b>UPDATES FROM THE UK SOCIETY FOR BEHAVIOUR ANALYSIS</b></p> <p>MECCA CHIESA, Jennifer L. Austin, Kate Grant, Suzy Yardley, Nick Barratt, Louise Denne, Aimee Giles, Maggie Hoerger, Jane McCready, Ciara Padden, Sandy Toogood, &amp; Athene Burdge (UK Society for Behaviour Analysis)</p> <p><b>BCBA CE: 1</b></p>
2.30	<p><b>SF-DDARIN INVITED SPEAKER</b></p> <p><b>SMALL COGS, BIG MACHINE</b></p> <p>DR NICK GORE (University of Kent)</p> <p><b>BCBA CE: 1</b></p>
	<b>REFRESHMENTS 3:30 – 4:00</b>
4:00	<p><b>PROFESSOR FERGUS LOWE MEMORIAL KEYNOTE ADDRESS</b></p> <p><b>EXPANDING BEHAVIOR-ANALYTIC SERVICES TO NEUROREHABILITATION SETTINGS</b></p> <p>DR MEGAN HEINICKE (California State University, Sacramento)</p> <p><b>BCBA CE: 1</b></p>
5:00	<p>Closing Session DAY TWO END (End of organised symposia) (Social meeting in Tavistock bar from 6:30)</p>

DAY 3 WEDNESDAY 17<sup>th</sup> APRIL

WORKSHOPS (NB: No scheduled talks or symposia on Day 3).

(PLEASE NOTE THAT WORKSHOP COST IS NOT COVERED IN CONFERENCE REGISTRATION)

Workshop 1: Room: TBA	Workshop 2: Room: TBA	Room: TBA
HALF-DAY WORKSHOP (9:00 – 12.00)	HALF-DAY WORKSHOP (9:00 – 12.00)	FULL-DAY EVENT
<p><b>Title:</b> Improving Professional Behavior Analysts' Public Speaking Skills</p> <p><b>Instructor:</b> Dr Megan Heinicke, BCBA-D (California State University, Sacramento)</p> <p><b>Abstract:</b> Public speaking is paramount to a behavior analyst’s professional and career development no matter their role (e.g., academic, administrator, practitioner). Proficient speaking is also an important skill for communicating powerful messages to a variety of professional audiences (Friman, 2014). For example, Friman urges behavior analysts to use “front of the room” opportunities to help achieve Skinner’s vision of disseminating our science to mainstream audiences. However, public speaking is one of the most commonly reported human fears; thus “front of the room” opportunities are often avoided. This workshop will focus on increasing public speaking skills by 1) identifying barriers to fluent public speaking, 2) offering recommendations from interviews of 10 expert public speakers in our field, and 3) practicing behavior-analytic strategies to improve speech fluency.</p> <p><b>PRICE:</b> Half day £45 FULL REGISTRANT / BCBA; £30 – STUDENT / BCABA (Please Note this charge is NOT covered in Conference Registration)</p> <p><b>BCBA CEUS: 3</b></p>	<p><b>Title:</b> 8 Leadership Lessons from Organisational Behaviour Management</p> <p><b>Instructors:</b> Leah Fennema Hall, BCBA; Julie Eshleman, BCBA; Ioanna Konstantinidou, BCBA UK-SBA OBM SIG</p> <p><b>Abstract:</b> Organisational Behaviour Management (OBM) is a sub-discipline of ABA which seeks to understand the influence of environmental variables on employee behaviour. The field of OBM offers a wealth of strategies and tools that can turn the process of supervision and leadership into a pleasant experience with a positive impact on supervisor and supervisee behaviour. OBM skills can help supervisors support supervisees as they learn new behaviours, achieve relevant goals, learn to assess performance related issues, and choose functionally suitable interventions. This workshop reviews eight OBM strategies regarding systems analysis, feedback, goal setting, and more which aim to equip you with knowledge that can improve your behaviour as a supervisor but also as a behaviour analyst in general.</p> <p><b>PRICE:</b> Half day £45 FULL REGISTRANT / BCBA; £30 – STUDENT / BCABA (Please Note this charge is NOT covered in Conference Registration)</p> <p><b>BCBA CEUS: 3</b></p>	<p><b>Sharland Foundation Early Career Researcher Event</b></p> <p>This full day event sponsored by the Sharland Foundation Developmental Disabilities ABA Research and Impact Network is designed to support early career researchers in the UK and ROI, in particular PhD students, using behavioural interventions in the field of developmental disabilities. There will be three workshops, each giving participants the chance to hear from leaders in the field and providing helpful suggestions to develop your research and further your career. Throughout the day there will be space to network, both with senior researchers as well as with other early career researchers; in addition, you will have the opportunity to share your own research interests by displaying a poster, giving a presentation or providing a written summary which will be distributed to all participants.</p> <p>Please see flyer on following page.</p>



**Sharland Foundation  
Developmental Disabilities  
ABA Research and Impact Network**

17th April @ Dept of  
Psychology, UCL

# **WANTED: EARLY CAREER RESEARCHERS**

(Using behavioural interventions in the field of Developmental Disabilities)

*Attend a networking event with leading researchers, with workshops on funding, research and career development*

Every participant will have an opportunity to share their own research!

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**Are you interested?**

**Visit [eabg.bangor.ac.uk](http://eabg.bangor.ac.uk) or  
[https://warwick.ac.uk/fac/soc/cedar/  
sharlandfoundation/](https://warwick.ac.uk/fac/soc/cedar/sharlandfoundation/) for more information**

**Open to researchers based in UK and ROI**

**Email [v.f.j.stafford@kent.ac.uk](mailto:v.f.j.stafford@kent.ac.uk) to book!**

**DAY 1**

**8:45 - 9:30: REGISTRATION (Foyer of UCL Psychology)**

LECTURE THEATRE: GROUND G03

**Symposium: Behaviour analysis and older adults**

Chair: Rebecca Sharp (Bangor University)

**BCBA CE: 1.5**

9:30

**Comparing preference for edible and leisure items with adults with dementia and adults with intellectual disabilities and dementia**

ZOE R. LUCOCK, Rebecca A. Sharp, & Robert S. P. Jones (Bangor University)

Stimulus preference assessments provide a direct measure of an individual's preference for activities and food without requiring the person to use vocal verbal behaviour. When presented in the same array, people with intellectual and developmental disabilities (IDD) tend to show a preference for edible items over leisure items. The opposite is often found with adults with dementia, for whom leisure items tend to displace edible items. Little is known about the preferences of people with IDD who develop dementia. We replicated the research assessing preferences in adults with dementia and also explored preference in by adults with both IDD and a diagnosis of dementia. We found that for adults with dementia, there was a clear preference for leisure items. However, our initial results show that there was no consistent preference for food or activities in adults with an IDD and dementia. We discuss the challenges of conducting preference assessments with older adults with an intact vocal verbal repertoire.

9:50

**Simple antecedent manipulations that can aid in the future of clients with a diagnosis of advanced dementia**

KARLA J. PELLING, Rebecca A. Sharp, & Carolien Lamers (Bangor University)

Antecedent manipulations do not always have to be complex, sometimes simple ones can be just as effective. We explored the use of a simple antecedent manipulation for the behaviour of a 78-year-old woman with a diagnosis of advanced vascular dementia. She attended a day centre and exhibited repetitive behaviours throughout the day. We measured her repetitive questioning for her pills and repetitive questioning about the bus times. On arrival she handed in her pills and was given a card stating that staff had her pills. After lunch we gave her a card saying she had taken her pills. When she asked about the bus we gave her a card detailing what time the bus was arriving. The intervention reduced her repetitive behaviour in both instances, and we propose it functioned as an abolishing operation for questioning behaviour and access to the reinforcer of acquiring information. We also found the behaviour change generalised across settings.

10:10

**Measuring the impact of headphones, background music and social interactions on reducing vocalisations for a client with neurocognitive disorder**

KYLA DOUTHWAITE, Rebecca A. Sharp, & Carolien Lamers (Bangor University)

Repetitive vocalisations can result in seclusion of a client, and therefore decreased opportunities for engagement and social interactions. For people with major neurocognitive disorder (dementia), vocalisations can change the way that people in the environment provide care and support. Often, repetitive vocalisations are maintained by automatic reinforcement, and one approach to decreasing them is to use matched stimuli to provide noncontingent access to the sensory stimulation assumed to match that of the behaviour. We compared the effectiveness of headphones playing music, and background music in decreasing vocalisations in a man with dementia. In a second phase, we also compared the effectiveness of adding noncontingent attention to the intervention as further environmental enrichment. We found that the different methods produced different results when implemented before versus during the behaviour, and while background music plus noncontingent attention appeared to produce the most significant impact, the results still varied significantly. We will discuss some of the practical issues we encountered in conducting the programme, and the implications for working with people with dementia for whom it is difficult to determine the function of complex behaviour.

10:30

**Reducing ‘rude’ behaviour in a woman with dementia: Presenting demands as requests for help**

EMMA WILLIAMS, Rebecca A. Sharp, & Carolien Lamers (Bangor University)

The use of behavioural interventions within older adult clinical settings is gaining interest with regard to both research and clinical practice. However, some clinical approaches require adapting for older adults. It is often recommended that people should be given short, simple instructions, however in older adults with long learning histories of complex social interactions, being spoken to like this can be perceived by them as rude. We conducted an antecedent assessment of how to present demands for a woman with dementia who would engage in challenging behaviour and refused to comply when presented with unavoidable demands (e.g., to step aside for a medical emergency). We measured latency to compliance and occurrences of challenging behaviour when demands were presented as a question, a request for assistance, a simple instruction, or embedded in social chatter. We found that challenging behaviour occurred the least when demands were presented as requests for help. We suggest that we require more research to explore required adaptations to behavioural approaches for adults with dementia and complex verbal repertoires.

**10:50 – 11:20: REFRESHMENTS (COMMON ROOM FLOOR 3)**

**Symposium: ABA in special schools**

Chair: Marguerite Hoerger (Bangor University)

**BCBA CE: 1.5**

11:20

**Integrating ABA into a Special School Curriculum: The model and preliminary evidence**

MARGUERITE HOERGER, Corinna Grindle, Helena O'Boyle, &amp; Laura Pitts (Bangor University)

We describe and present the evidence for the British Early Special School Teaching Model (BESST) described by Foran et al. (2015). The model is a collaboration between Foundation Phase teachers in SEN schools and behaviour analysts. A total of 56 children ages 4-6 years old from seven SEN schools participated in a one-year evaluation of the model. The children presented with a range of special needs and learning disabilities. Each child was assessed by a multi-disciplinary team who recommended a bespoke curriculum. The children were given 1:1 instruction from teaching staff for 5 hours a week using the principles of applied behaviour analysis (ABA). Behaviour analysts supported the classrooms on a weekly or daily basis. Skills were taught and generalised during group activities. Function based behaviour plans were used to teach key communication skills and reduce challenging behaviours. We found statistically significant increases on measures of Vineland Adaptive Behaviour Scales and the Mullens Scale of Early Learning. The model was described as an example of Best Practice by ESTYN. The model will be discussed in terms of how interventions based in ABA can be accommodated in SEN schools.

11:40

**Extending the evidence base: a control group evaluation of the BESST Model**

LAURA PITTS, Stacey Gent, &amp; Marguerite Hoerger (Bangor University)

Two extensions of the BESST model will be reported. In the first study, the BESST model was evaluated as a control group experiment. A total of 19 children ages with a diagnosis of ASD who were enrolled in the foundation phase of a SEN School participated in the research. Ten children were enrolled in a classroom that was supported by a behaviour analyst and classroom staff implemented BESST model. Nine children received education as usual. The groups were similar on all measures at pre-test. After one year of intervention, the children in the intervention group made significantly higher gains on Vineland Adaptive Behaviour Scales, the Mullens Scale of Early Learning, and P-level and EYFS measures than the children who received education as usual. A second study explored the BESST model for children up to age 14. A total of 16 students in Key Stages 1, 2, and 3 were educated using the BESST model. After one year of intervention, all of the children showed significant gains on measures of the ABBLs-R, P-level and EYFS measures, and the VABS.

12:00

**Evaluating the BESST model for students with Severe Learning Disabilities**

HANNAH WALLEY &amp; Marguerite Hoerger (Bangor University)

The current study extended the BESST model to a classroom of children with Severe Learning Disabilities. Eleven children in a foundation phase classroom in an SEN school participated. All participants had a diagnosis of either a profound or a severe learning disability alongside other significant difficulties. Each child received 1:1 teaching for 20-50 minutes a day based on the principles of ABA. The teaching staff utilised task analysis and implemented function based behaviour plans. The class was supported by a behaviour analyst for an average of 5

hours each week. Statistical analysis showed that the children made gains on the measures of the Vinelands Adaptive Behaviour Scales and the Mullens Scale of Early Learning after one year of intervention. Case studies will explore the profiles and unique learning trajectories of individual children.

12:20

**An analysis of the variables that affect successful BESST Model implementation**

HELENA O'BOYLE & Marguerite Hoerger (Bangor University)

Rogers (2005) theory of innovation implementation and dissemination describe the environmental characteristics that can predict the likelihood that an intervention will be delivered with fidelity. We considered these characteristics in SEN schools that delivered the BESST model to determine if they predicted implementation fidelity. A mixed methods research design was utilised to gather and analyse data from five schools that delivered the BESST model. Questionnaires and interviews were used to understand staff attitudes and perceptions of the BESST Model. Results from the quantitative and qualitative analysis confirmed the environmental variables that predict implementation fidelity. How these results can inform settings seeking to successfully implement the BESST Model will be discussed.

**12:40 – 1:40: LUNCH**

**Symposium: Assisting people with an intellectual disability to self-manage healthy lifestyle choices**

Chair: Claire McDowell (Ulster University)

**BCBA CE: 1**

1:40

**Environmental factors that potentially influence weight loss in adults with intellectual disabilities (ID); A qualitative comparison between two groups**

LAURA SKELLY, Phil Smyth, Mark Donnelly, Geraldine Leader, Julian Leslie, Liz Simpson & Claire McDowell (Ulster University)

Inclusion of adults with ID in research is not only policy driven, but beneficial to the successful development and implementation of interventions that propose to serve them. Focus Groups have become a popular and valued method of ensuring inclusion, particularly in relation to health interventions. Focus groups were held with 2 groups of adults with ID who attend the same Service Centre but differ in their success with weight loss. A comparison of emerging themes was conducted to identify differences between groups over 4 domains; barriers, facilitators, knowledge base and current habits. Results indicate that the group successful in weight loss were influenced by “external reinforcement programs” and “positive feedback”, and did not regularly consume take-away foods or alcohol, as reported by the other group.

2:00

**Growth Rates in Food Knowledge for Adults with Intellectual Disabilities (ID); Flashcard Learning versus Technology-Based Learning**

LAURA SKELLY, Phil Smyth, Patricia Cusack, Sarah Loughran, Mark Donnelly, Geraldine Leader, Julian Leslie, & Claire McDowell (Ulster University)

Being overweight continues to increase secondary health conditions for adults with ID. Many health promotion interventions focus on weight reduction as the primary outcome rather than attainment of food knowledge for decision making. Some studies have examined broad indicators of healthy eating knowledge with adults with ID such as increasing water, fruit and vegetable intake and reducing sweet or fried food intake. However, no quantitative detail is available of how individuals categorise common foods when making decisions regarding their eating habits. This study compiled baseline knowledge of 21 adults with ID for 185 common foods. Results were then compared after a 7-week flashcard intervention followed by a 7-week technology gaming intervention.

2:20

### **HealthyTaps: A new way for people with an ID to self-manage their weight**

PHIL SMYTH, Laura Skelly, Mark Donnelly, Geraldine Leader, Julian Leslie, Liz Simpson & Claire McDowell (Ulster University)

Overweight and Obesity is an on-going health challenge. This challenge is disproportionately experienced by people with an Intellectual Disability. 'HealthyTaps' is a multi-component weight management intervention that has been specifically designed for people with an Intellectual Disability and has arisen from the project 'Assisting People with an Intellectual Disability to Self-manage Healthy Lifestyle Choices'. The intervention combines behavioural technology, health education, circle of support training, and individually tailored weekly weigh-ins with assistive technology in the form of an easy access app. This paper will provide an overview of the HealthyTaps intervention and results from the first HealthyTaps trial. Results will be compared to the NICE guidelines for successful weight interventions.

## **2:40 – 3:10: REFRESHMENTS (common room 3<sup>rd</sup> floor)**

### PARALLEL SESSION DAY 1 – LECTURE THEATRE, LOWER GROUND

#### **Symposium: Stimulus equivalence research and classical conditioning**

Chair: J. Carl Hughes (Bangor University)

#### **BCBA CE: 1.5**

9:30

#### **Do Equivalence Relations Underlie Children's Rapid Learning of Listener and Speaker Relations?**

NEIL DUGDALE (Leeds Beckett University)

During their second year of life, typically-developing children become able to learn very quickly to relate words to their referents, both as listeners (e.g., hear word, select object) and as speakers (e.g., see object, say word). Cognitive psychologists and behavior analysts have each developed research protocols to examine the emergent processes underlying this phenomenon of rapid word learning. The research reported here combines procedural elements from both traditions in an attempt to advance our understanding of early vocabulary acquisition. The data, although limited, suggest that very young children are capable of learning new vocabulary after merely a few unreinforced exposures to the novel word-object relations, and that the relational properties of these emergent repertoires can be considered consistent with equivalence. The significance of the research will be briefly outlined, along with some suggestions for its future direction.



9:50

**Disentangling learning and inference in stimulus equivalence formation II**

DAVID DICKINS (University of Liverpool)

In traditional experiments on equivalence class formation (ECF) baseline relations are first trained and then must be remembered while tests indicate how a separate activity of inference, or relational framing, is performed upon them. These tests of ECF may also be passed when an array of unlearned baseline pairs is concurrently presented in plain sight. Here, in a study inspired by Wason (1960), participants were presented with such an array and asked to find the rule determining the selection from it of an exemplar equivalence pair by choosing their own novel pairs. For each choice they were told whether or not it obeyed the actual rule. Choices were repeated until a participant could specify the rule and/or sort the items into equivalence classes. Performance on this new test of ECF, and its wider implications will be described.

10:10

**A Comparison of Two Discrimination Training Procedures: Is Faulty Stimulus Control A Risk?**

BRITTANY DISANTI, Svein Eikeseth, &amp; Sigmund Eldevik (Oslo Metropolitan University)

The study compared receptive labeling involving conditional discriminations to children with autism. The study included 6 children ranging in age from 9-years to 13-years old with 50 or less receptive labels and 200 or more receptive labels. All participants were exposed to two sessions a day of the Structured Mix before Counterbalanced Random Rotation (SMCRR) procedure and Counterbalanced Random Rotation (CRR) procedure. The SMCRR procedure included five steps with mass trials, and intermixing of stimuli before randomization. The CRR procedure involved random order of three stimuli from onset. Participants were exposed to one, two, or three stimulus sets using both conditions. Results indicated a mix in effectiveness with procedures, but altogether the SMCRR procedure required less trials, less prompts, but more errors. There is potential evidence for faulty stimulus control for participants who did not master the SMCRR procedure. This possibility merits further study.

10:30

**Physiological valence mediators underlying subliminal conditioning of appetite motivations**

MICAH AMD (Federal University of Sao Carlos) &amp; Sylvain Baillet (McGill University, Canada)

When attempting to alter 'eating' behavior, explicitly providing statements such as 'eating is good' may produce little effect. This may be due to subjective, negatively-valenced narratives (e.g., *eating* → *fat* → *lonely*) evoked by perception of the word 'eating'. The valences of stimulus-evoked narratives can function to override any explicitly provided *eating-good* valence information. In the present study, ten subjects were provided with *eating-good* (CS-US) information in order to increase appetite motivation. Our participants experienced augmented appetite motivation, as observed via increased saliva production and online declarations of hunger, after eating-related CSs were linked with positively valenced USs. We also found significant modulations of event-related brain responses and of alpha activations followed by CS and US onsets, where a significant effect of valence (neutral X positive) was found using magnetoencephalographic (MEG) source imaging. Our findings clarify the physiological effects of subliminally augmenting the valences of *eating*-representations and their positive influence on appetite. We conclude that the valences of stimulus representations can be augmented subliminally to augment eating motivations.

**10:50 – 11:20: REFRESHMENTS (Common room 3<sup>rd</sup> floor)****Symposium: Verbal behaviour research**

Chair: Emily Tyler (Bangor University)

**BCBA CE: 1.5**

11:20

**Methodological Advances in Testing and Training Analogical Responding in Young Children**

ELLE B. KIRSTEN &amp; Ian Stewart (National University of Ireland, Galway)

Analogical (A:B::C:D) relational responding is a key repertoire in the development of intellectual and verbal repertoires. This paper will 1) briefly review the Analogical Relations Assessment (the ARA); a Relational Frame Theory based assessment of analogical relations, and, 2) discuss RFT-based training procedures used to train arbitrary analogical relations in 5 to 6-year-old children. The ARA allows assessment of (i) non-arbitrary relations (ii) non-arbitrary analogy (relations between physical relations) (iii) arbitrary relations and (iv) arbitrary analogical relations (relations among relations). Study 1 correlated ARA performance with age, and performance on standard cognitive tests; the age of emergence of analogy, and the extent to which basic relational patterns are prerequisite repertoires needed for analogy will be discussed. Subsequent studies examined testing and training arbitrary analogical relations in 5 to 6-year-old children. Data from testing, training, and generalization trials will be presented and discussed.

11:40

**Cross-domain transfer of relational operant training effects in primary school children**

Shane McLoughlin, Antonina Pereira, TERESA MULHERN, Ian Tyndall (University of Chester)

Typically, applied behaviour analytic educational interventions involve one-to-one or one-to-few delivery, and therefore may be too costly to implement on a large scale. Strengthening Mental Abilities with Relational Training (SMART) attempts to ameliorate this problem of scalability as an online relational operant training intervention. We tested the efficacy of SMART training for improving standardized matrix reasoning performance in a sample of 7-9 year-olds in a primary school in Ireland ( $N = 39$ ), with online chess as an active control condition. With a low training dosage, we observed an increase in non-verbal IQ of 8.9 points. More importantly, in the training condition, when we partialled out baseline non-verbal IQ, the residual non-verbal IQ (i.e., the cognitive ability that was gained) predicted variance in examination performance, especially reading comprehension. This study has a larger sample and younger participants than any other SMART study published to date. These results suggest that relational operant training can be offered on a larger scale (in this case, in schools) and may help to improve children's educational outcomes.

12:00

**Testing the effects of multiple exemplar instruction on the induction of joint incidental bidirectional naming in children diagnosed with autism**

EMMA HAWKINS (Jigsaw CABAS® School and Tizard Centre, University of Kent, Canterbury, UK), Grant Gautreaux (Nicholls State University), Mecca Chiesa (Tizard Centre, University of Kent, Canterbury, UK)

Joint Incidental Bidirectional Naming (JIBN) is defined as the emergence of both untaught listener behaviour and untaught speaker behaviour following an incidental language experience providing the names of novel items. We evaluated the effectiveness of Multiple Exemplar Instruction (MEI) on the induction of JIBN with eight children, aged 5-16 years, diagnosed with autism and a learning disability. Two separate experiments were conducted using multiple probe designs. In Experiment 1, none of the participants acquired JIBN following the MEI procedure. An adaptation was made to the experimental procedure in Experiment 2 to include an additional Match-to-Sample (MTS) procedure prior to each test for JIBN. The results showed that JIBN was not induced by MEI for any of the participants. However, one participant met the criteria for JIBN prior to the implementation of the MEI procedure. The potential of tests producing false negative scores and the effects of multiple testing were discussed.

12:20

### **Effects of a flexibility training on the reduction of prejudice**

TÁHCITA M. MIZAEL, Sam William Gibson, Bryan Roche, João H. de Almeida, & Julio C. de Rose (National University of Ireland, Maynooth)

Prejudice can be defined in terms of poorly contextually controlled equivalence relations between social group category labels and negative evaluative terms. The aim of this study was to examine the effectiveness of an analogue prophylactic intervention designed to lessen the rate at which such stimulus equivalence relations are formed with particular stimuli. Forty-two participants were given matching-to-sample (MTS) training to form two 3-member stimulus equivalence classes, after being exposed to functional response class training designed to be inconsistent with (G3), consistent with (G2), or both consistent and inconsistent with (G1) the emergent equivalence classes. The three groups of participants were then compared in terms of equivalence class yield on a short single test block using a MTS testing procedure. Groups differed in terms of yield, but G1 produced effects more or less equivalent to G3 in terms of retarding equivalence class emergence. Implications for the reduction of prejudice are discussed.

**12:40 – 1:40: LUNCH**

### **Symposium: Reading interventions**

Chair: Emily Tyler (Bangor University)

#### **BCBA CE: 1**

1:40

### **Supporting parent implementation of an online reading programme with struggling readers: a cluster-randomised controlled trial**

SARAH ROBERTS, Emily Tyler, Richard Watkins, J Carl Hughes & Richard Hastings (Bangor University)  
 Headsprout Early Reading (HER) is an English language reading programme that has improved reading skills in schools across North Wales. Research indicates children from disadvantaged backgrounds tend to receive the least learning support at home. The current study investigated the effects of implementation support to schools to enable them to support parents in home-based implementation of HER. 23 schools received HER licence, training and resources. Following randomisation, 11 schools (47=NUMBER OF PUPILS) received implementation

support and 12 schools (61=NUMBER OF PUPILS) supported parents without implementation support. The students were assessed using the York Assessment of Reading for Comprehension (YARC) prior to randomisation (Time 1) and following the 7-month intervention (Time 2). This paper discusses whether implementation support for parents delivered by schools lead to better fidelity of implementation of HER for beginning readers and which factors, associated with fidelity of HER delivery, predict relative improvements in YARC change scores.

2:00

**North Wales Repeated Reading Project (NW-RRP): A comparison of two reading fluency interventions in mainstream primary schools**

EMILY J TYLER, Mike Beverley, Sarah Roberts, Richard Watkins, J Carl Hughes & Richard Hastings (Bangor University)

Oral reading fluency is a strong predictor of reading competence, and systematic instruction in reading fluency has been demonstrated to be effective for improving oral reading fluency. The current study compared the effects of a Repeated Reading intervention with the effects of a High Frequency Word intervention. In this cluster-randomised controlled trial, 19 schools were randomly assigned to either implement a Repeated Reading intervention (9 schools, n=82), or to implement a High Frequency Word fluency intervention (10 schools, n=90). Participants in all schools were aged 8-10 years and were assessed using the York Assessment of Reading for Comprehension (YARC) and the Dynamic Indicators of Basic Early Literacy Skills Oral Reading Fluency sub-test prior to randomisation and following the 4-month intervention period. We will report preliminary findings and discuss the implications of these findings for the use of systematic fluency instruction in primary schools and future research in the field.

2:20

**A Comparison of Two Approaches to Supplementary Instruction for Children "At-Risk" of Reading Failure.**

CATHERINE STOREY, Claire McDowell, & Julian Leslie (Ulster University)

Research investigating remedial action for disadvantaged children suggests that explicit systematic phonological training is the fastest most effective method of increasing word recognition and subsequently reading accuracy. Combining this approach with computer assisted instruction (CAI) may be an efficient means to improving educational outcomes. Despite these findings, many educators adopt the traditional whole-language approach to literacy instruction. The current study compared the effectiveness of a systematic phonics approach to instruction (Headsprout© Early Reading) with a whole-language approach to instruction (Reading A-Z). Participants were 30 primary school children (male) aged 5-6, in receipt of free school meals (FSM) and supplementary literacy instruction. 30 pupils with specific literacy difficulty were randomized to either a Headsprout Early Reading group (HER) (n = 10), a Reading A-Z (RAZ) group (n = 10) or a waiting list control group (n=10). Literacy skills were assessed using the Phonics and Early Reading Assessment (PERA) pre- and post-intervention. Anova and T-test analysis found that HER made significantly greater gains on measures of Pre-Phonics Awareness than the RAZ and waiting-list control groups. Differences in complex literacy skills such as Sentence Reading and Word/Non-Word Recognition were not significant across all groups. Implications of these findings for supplementary literacy instruction with at-risk readers will be discussed.

**2:40 – 3:10: REFRESHMENTS (common room 3<sup>rd</sup> floor)**

**3:10: INVITED SPEAKER, LECTURE THEATRE**

**BEHAVIOURAL GERONTOLOGY: APPLYING OUR SCIENCE TO OLDER PEOPLE AND PEOPLE WITH DEMENTIA**

DR REBECCA SHARP, Bangor University

**BCBA CE: 1**

There is a growing interest in both the UK and internationally in the application of behaviour analysis to support older adults, including adults with intellectual disabilities and dementia. A small but expanding body of literature shows the effectiveness of functional assessment methods, function-based interventions, and environmental changes to improve the quality of life in older adults. However, the current research is limited to specific topographies of behaviour, is conducted in care settings rather than in family homes, and our understanding of the limits of operant mechanisms for the behaviour of older adults is limited. In this talk, Rebecca will present a ‘stock take’ of what we understand about how people with dementia interact with their environment, suggest avenues for future applied and translational research, and discuss practice issues specific to older adults in a UK context.

**DAY END (social meeting in Tavistock Hotel bar from 6:00 onwards)**

**8:30 - 9:00: REGISTRATION (Foyer of UCL Psychology)**

LECTURE THEATRE: GROUND G03

**Symposium: Interventions for children with ASD**

Chair: Stacey Hunter (BCUHB)

**BCBA CE: 1.5**

9:00

**A quantitative analysis of procedures for facilitating categorization skills among persons with autism**

TERESA MULHERN (University of Chester)

Categorization is an essential component for the successful execution of several cognitive processes, however, delays in the acquisition of categorization skills are common among those with autism spectrum disorder (ASD). This analysis therefore; (i) evaluated the literature describing training procedures to facilitate categorization skills among persons with ASD, (ii) calculated effect sizes using Tau-U (Parker, Vannest & Davis, 2011) for single-subject research designs, and (iii) aimed to isolate evidence-based practices. Systematic searches yielded 10 studies suitable for inclusion within the current review. The current analysis indicated that a number of training procedures were successful in increasing and establishing categorization repertoires in individuals with ASD. The weighted aggregated Tau-U was 0.92,  $p < .001$  (90% confidence interval = 0.84, 0.99). Furthermore, based upon evidence-based practice calculations no training procedures were identified as constituting sufficient empirical support, while two procedures were evaluated as promising, but lacking sufficient research evaluation.

9:20

**Water safety for children with autism spectrum disorder (ASD): How can applied behaviour analysis help?**

CATRIONA MARTIN & Karola Dillenburger (Queen's University Belfast)

Drowning is one of the leading causes of death in children under five years of age (Asher, Rivara, Felix, Vance, & Dunne, 1995). It is the third most common cause of accidental death in children in Britain, after road traffic accidents and burns (OPCS, 1988). The mortality rate from drowning for children with ASD has been estimated to be as much as twice that of the typical population (Mouridsen, Bronnum-Hansen, Rich, & Isager, 2008). The present study investigated the impact of a eight-week instructional programme on the acquisition of behavioural water safety skills in five young people with autism. Mixed designs were employed to determine the effectiveness of the ABA-based curriculum to teach water-based safety skills. Significant improvement was demonstrated for the all five participants.

10:00

**Community Implementation of Early Behavioral Intervention: Higher Intensity Gives Better Outcome**

SIGMUND ELDEVIK (Oslo Metropolitan University), Kristine Berg Titlestad, Hege Aarlie, Western Norway University of Applied Sciences), & Roy Tønnesen, Department of Autism, Bergen)

We evaluated outcome of early behavioral intervention for children with Autism Spectrum Disorders (ASD) as it was provided through public service providers in Norway. One group of children received low intensity

intervention (11.1 weekly hours), a second group higher intensity intervention (18.1 weekly hours), and a third group received eclectic special education. We compared outcomes on adaptive behavior, ASD severity and intellectual functioning across the groups after one year. All though, both the lower and higher intensity behavioral intervention groups received less hours than what is recommended in the literature, both groups did significantly better than the eclectic comparison group. Furthermore, the higher intensity behavioral group did better than the lower intensity behavioral group. Confirming a dose-response relationship between intensity and gains made. Nevertheless, gains in both behavioral groups were more modest than what is reported for intervention that is more intensive. We discuss the pros and cons of the publicly funded behavioral intervention model.

### **10:20 – 11:00: REFRESHMENTS (common room 3<sup>rd</sup> floor)**

#### **Symposium: Application of behaviour analysis**

Chair: Rebecca Sharp (Bangor University)

#### **BCBA CE: 1**

11:00

#### **Flipping the classroom at university level using a concurrent-choice procedure**

BRETT WINSPEER & Rebecca Sharp (Bangor University)

At university level, content is taught through a combination of didactic lectures, and supplementary classes (seminars). Classes encourage active learning, whereby students engage in activities to reinforce self-study behaviour. Flipped classrooms can be used to encourage active learning by pre-exposing students to video content before class. Time in class is reserved for discussions and problem-solving tasks. Using a concurrent chain procedure, students were given a choice of attending an in-situ seminar with a didactic component, or a flipped seminar. Prior to seminars, videos were released covering course material. Responding in the initial link (choice of format) was reinforced by terminal link responses (active learning activities). Attendance and preference were measured throughout the module. All students who returned questionnaire measures liked having choice. Over 50% of students stated choice increased their attendance. Final measures showed no substantial difference between preferences for seminar format. Incongruence between verbal behaviour and choice were found.

11:20

#### **Using applied behaviour analysis to break down the barriers of self-segregation**

GILL LEGG & Louise Auld (NTW NHS Foundation Trust)

This case study will describe a de-sensitisation programme with a 16 year old male with autism, who was on a long term segregation care and treatment plan in a young people's inpatient unit. This was following a history of high intensity aggression towards staff, when they entered the young person's living space when living in a residential education placement. The four term- contingency developed will be presented which depicts how the behaviour of self-segregation started from an early age, and developed into a cycle of increased isolation from others, and how aggressive behaviour developed and was maintained as an effective way of gaining relief from physiological arousal and then consequently kept people away. Following alternative behaviours being identified,

mindfulness and relaxation protocols were taught, and then developed into a graded 4-step desensitisation plan. The outcome of the therapist being able to enter the young person's living space was achieved. A plan for how to generalise this progress as a route to further reducing segregation will be discussed.

11.40

**A simultaneous presentation and fading procedure treating food selectivity in children with autism spectrum disorder**

MARGARET KIRK & Katerina Dounavi (Queen's University Belfast)

Individuals with feeding disorders may be excluded from social interaction at mealtimes. This study contributes a research based and data driven solution to improve the feeding habits of children with autism within a community clinic environment. Two participants were treated using simultaneous presentation with a fading protocol across three different food groups using multiple baselines. Preferred foods were presented on the spoon simultaneously with a small piece of a new target food and the size of the preferred food was gradually decreased until the child was eating only the target food. Results indicate that the protocol was highly effective for one participant who began to eat a wide range of new foods in daily life, including foods that had not been specifically offered in treatment sessions. The second participant was unable to attend appointments consistently and he did not generalise the treatment effects to daily life. However, he became more willing to try new foods in the clinic environment. This study offers conservative yet promising evidence that for some individuals, simultaneous presentation with a fading protocol may be a useful alternative method for treating feeding disorders when compared to inpatient hospital ABA services.

**12:00 – 1:30: LUNCH**

**PARALLEL SESSION DAY 2 – LECTURE THEATRE: LOWER GROUND**

**Symposium: Precision Teaching Interventions and Verbal Behaviour**

Chair: J. Carl Hughes (Bangor University)

**BCBA CE: 1.5**

9:00

**Implementation Support Improves Outcomes of a SAFMEDS Numeracy Strategy: A Cluster-Randomized Controlled Trial**

KAYDEE OWEN, Stacey Hunter, Richard Watkins, Joshua Payne, Tom Bailey, Richard Hastings, J. Carl Hughes (Bangor University)

The Say-All-Fast-Minute-Every-Day-Shuffled (SAFMEDS) strategy has a growing evidence-base; with previous research demonstrating that it can be used to promote fast and accurate recall. The current study employed a c-RCT design, to assess the impact of implementation support during a teacher-led SAFMEDS numeracy intervention. Following training and baseline assessments, we randomly allocated schools to receive either no (n = 29) or on-going (n = 29) implementation support from a researcher. We assessed the children's (nNoSupport = 269, nSupport = 263) addition, subtraction, multiplication, and division fluency at baseline and 7-month follow-up, using the Mathematics Fluency and Calculation Tests (MFaCTS). The results demonstrated that implementation support positively impacts children's numerical fluency on the MFaCTS Grades 1-2 (d = 0.34)



and Grades 3-5 ( $d = 0.29$ ) tests. Here we discuss some of the fidelity feedback noted during support visits and further considerations for school-based SAFMEDS interventions.

9:20

### **Using Precision Teaching to improve basic mathematical skills of students with disabilities**

ATHANASIOS VOSTANIS, Mecca Chiesa, Ciara Padden, Peter E Langdon (Tizard Centre, University of Kent) Ramey et al., (2016) underlined the need for more evidence of Precision Teaching's (PT) effectiveness when applied to students with intellectual and developmental disabilities (IDD).

Sixteen students diagnosed with IDD were assessed with the VABS-II teacher version, GARS- 2 & TEMA-3. Four students received daily PT practice while the rest acted as control participants. Six mathematical skills were targeted. A-B designs were utilised for the first five skills and a multiple baseline across participants design was used for the primary skill (i.e., addition). All four participants improved on the prerequisite skills. As for the skill of addition, the participants' improvement was both socially and statistically significant. This experiment demonstrated that students with IDD could benefit from the application of PT. It also showed that students with IDD could perform both accurately and quickly when the instruction is appropriate. Finally, it demonstrated that students with IDD could achieve steep weekly learning rates.

9:40

### **Using Precision Teaching to increase fluency of Makaton signing in a mainstream nursery**

Ivanah Edquiban, Angel Tan, Jenny Tan, (Bangor University), & BETHAN MAIR WILLIAMS (Independent) Precision Teaching in the form of SAFMEDS was used to teach 238 Makaton signs to 11 staff members (working in three different playrooms) in a mainstream nursery in North Wales. Additionally pre and post-test interviews were carried out on staff attitudes to signing and preferred teaching methods. Despite significant increases in individual signing fluency and competency, this did not transfer to increased overall use of signing in the three playrooms. A follow on research project is currently taking place in which Direct Instruction is being used to teach staff in situ play scripts which incorporate all the targeted signs.

10:00

### **A systematic review and meta-analysis of the effect of listener training for establishing intraverbals**

Line Børtveit, Oda Marie Vister, & BØRGE STRØMGREN (Oslo Metropolitan University)

Eight studies on the effect of listener training on intraverbal responding were identified through a systematic literature search. A descriptive assessment was performed, in addition to a methodological quality assessment using the CEC standards for evidence-based practice. Effects were assessed by visual analysis for those studies with sufficient methodological quality. Results showed that six of the eight studies had sufficient methodological quality to be included in the assessment of effect. Four studies showed positive effects, the remaining two showed neutral or mixed effects. Consequently, listener training in order to establish intraverbal responding were classified as a *possibly evidence-based practice*. A further estimation of effect size (BC-SMD, Cohen's  $d$ ) for five of the six studies was performed as a preparation for a meta-analysis. The meta-analysis showed a large combined effect size. However, the confidence interval was large and there was a large estimate of heterogeneity, ruling out interpretation of the combined effect size.

**10:20 – 11:00: REFRESHMENTS (common room 3rd floor)**

**Symposium: ABA in multi-disciplinary settings**

Chair: Stacey Hunter (BCUHB)

**BCBA CE: 1**

11:00

**“I know how to teach, but not what to teach”: an investigation into the current attitudes and beliefs held by Board Certified Behaviour Analysts and Speech and Language Therapist in the UK**

TARA E. MILLAN BROPHY & Bethan Mair Williams (Queen’s University Belfast, Ireland)

Board Certified Behaviour Analysts (BCBAs) and Speech and Language Therapists (SaLTs) do not typically work together in the UK. Despite both professions often working with clients with Speech, Language and Communication Needs (SLCN), the verbal behaviour approach is not often adopted by SaLTs. We sought to investigate the current attitudes and understanding each profession holds towards the other. Thirty three BCBAs and 67 SaLTs responded to an online survey. BCBAs demonstrated a more favourable attitude towards SaLTs than SaLTs reported towards BCBAs. SaLTs had weaker knowledge of the BCBA profession and both professions demonstrated a poor understanding of the scope of each profession. Both professions were however, eager to work closely together and learn from each other as well as impart knowledge to each other. Thematic analysis supported the researcher’s argument that SaLTs have much knowledge of SLCN to impart and are most likely better at creating functional SLCN targets while the BCBAs have superior, empirically proven teaching procedures. Both professions demonstrated a good understanding of EBP and were eager to learn and collaborate with the other. Further research should be conducted surrounding the implementation of a verbal behaviour structure applied to linguistic interventions, and the most cost effective way to deliver training and information about each profession to each other.

11:20

**Be better with echoics: Using a multi-disciplinary approach to assess and support speech development**

CYNTHIA EWERS-COBB, Tara E. Millan-Brophy, & Rochelle Gray (Independent)

We will discuss the current tools within speech and language sciences and how it can help shape and develop behaviour analysts understanding of the echoic verbal operant. The presentation will discuss the current assessment protocols such as the International Phonetic Alphabet, key assessments and speech development profiles. The presentation will discuss some of the current literature regarding echoic interventions and its efficacy with the UK population. Finally, the presentation will discuss some behavioural applications and interventions that behaviour analysis and speech and language therapists can use to systematically shape echoic behaviours into functional language.

11:40

**Using a workforce development approach to increase the use of positive behavioural support in the North East and Cumbria**

ALISON BRANCH, Melissa Beard, & Lynne Jones (NHS Transforming Care Partnership - North East and Cumbria)

NHS England's Transforming Care programme aims to improve health and social care services so people with learning disabilities and behaviours that challenge, can live in the community, with the right support. Positive Behavioural Support (PBS) is integral to this and became the foundation of the North East and Cumbria's Transforming Care Plan. A scoping project in 2016, involving key stakeholders, identified a lack of learning pathways and infrastructure to support the use of PBS as well as appropriate commissioning. Using a workforce development approach, a system-wide method was developed to support commissioning and learning in PBS and to build capacity within organisations. Working with Northumbria University, accredited PBS programmes were developed at three levels, designed to meet the PBS Academy Competence Framework and Training Standards. Qualified PBS specialists/teachers provide supervision and competence assessment to organisations undertaking the programmes which started in September 2018.

**12:00 – 1:30: LUNCH**

PARALLEL SESSION DAY 2 – ROOM 305

**Session: School-wide Positive Behaviour Support**

MARGUERITE HOERGER (Bangor University)

**BCBA CE: 2**

*(PLEASE NOTE THAT THIS SESSION WILL RUN FROM 9:00 TO 11:00)*

School Wide Positive Behaviour Support is an operational framework designed to ensure students have access to the most effective behavioural and instruction practices possible. SWPBS is not a fully developed intervention, but a decision making framework that guides the selection and implementation of evidence based practice to improve outcomes for all students. SWPBS is an application of Applied Behaviour Analysis. We will consider how schools can set school wide expectations and supports, how to use data to make decisions, how to teach and encourage prosocial behaviours across the school community. We will consider the role of the behaviour analyst in SWPBS. The workshop will describe the implementation of SWPBS in mainstream primary, SEN, and pupil referral units in North Wales. At the end of the workshop, attendees will understand the three tiers of SWPBS and have examples of interventions for each tier. Emphasis will be placed on the factors that influence implementation and fidelity of SWPBS.

11:30 – 1:30: SF-DDARIN - NETWORK MEETING (Room 305) **CLOSED MEETING**

**12:00 – 1:30: LUNCH**

**INVITED SPEAKERS: LECTURE THEATRE, LOWER GROUND FLOOR**

**1:30 UPDATES FROM THE UK SOCIETY FOR BEHAVIOUR ANALYSIS**

MECCA CHIESA, Jennifer L. Austin, Kate Grant, Suzy Yardley, Nick Barratt, Louise Denne, Aimee Giles, Maggie Hoerger, Jane McCready, Ciara Padden, Sandy Toogood, & Athene Burdge (UK Society for Behaviour Analysis)

**BCBA CE: 1**

**2:30 SF-DDARIN INVITED SPEAKER**

**SMALL COGS, BIG MACHINE**

DR NICK GORE (University of Kent)

**BCBA CE: 1**

The Sharland Foundation Developmental Disabilities Research and Impact Network (SF-DDARIN) aims to improve the lives of people with learning disabilities through behavior analysis. Nick will summarise key developments and work streams that have emerged through this innovative way of working in the last two years. Within this context he will then focus on the evolution of Positive Behavioural Support (PBS) from a basic science of human behavior through stakeholder collaboration in the UK. This will include consideration of research and strategic activities that have been initiated in recent years. Nick will conclude by identifying potential strategies and research questions that may support the continued development and implementation of PBS in the future.

**3:30 – 4:00: REFRESHMENTS**

**4:00 PROFESSOR FERGUS LOWE MEMORIAL KEYNOTE ADDRESS**

**EXPANDING BEHAVIOR-ANALYTIC SERVICES TO NEUROREHABILITATION SETTINGS**

DR MEGAN HEINICKE (California State University, Sacramento)

**BCBA CE: 1**

Each year in the United States, approximately 2.5 million Americans sustain a traumatic brain injury. Many of these brain injury survivors will present with long-term disability involving physical, behavioral, cognitive, and emotional consequences that can interfere with rehabilitative goals, independent living, and quality of life. Behavior analysts are well-equipped to expand their scope of practice outside of developmental disabilities to serve this growing and historically underserved population. This talk aims to 1) describe the epidemiology of brain injury, 2) offer a summary and examples of the current behavior-analytic literature in brain injury rehabilitation settings, and 3) provide optimal strategies for diversifying a behavior analyst's consumer base to serve brain injury survivors while continuing to meet the current BACB® Professional and Ethical Compliance Code.

Closing Session DAY TWO END (End of organised symposia)

(Social meeting in Tavistock bar from 6:30)

**DAY 3 - WORKSHOPS**

(NB: No talks or symposia on Day 3).

**Workshop 1: HALF-DAY WORKSHOP (9am – 12pm)**

Improving Professional Behavior Analysts' Public Speaking Skills - Dr Megan Heinicke, BCBA-D (California State University, Sacramento)

PRICE: Half day £45 FULL REGISTRANT / BCBA; £30 – STUDENT / BCABA (Please Note this charge is NOT covered in Conference Registration)

BCBA CEUs: 3

*Background*

Public speaking is paramount to a behavior analyst's professional and career development no matter their role (e.g., academic, administrator, practitioner). Proficient speaking is also an important skill for communicating powerful messages to a variety of professional audiences (Friman, 2014). For example, Friman urges behavior analysts to use “front of the room” opportunities to help achieve Skinner's vision of disseminating our science to mainstream audiences. However, public speaking is one of the most commonly reported human fears; thus “front of the room” opportunities are often avoided. This workshop will focus on increasing public speaking skills by 1) identifying barriers to fluent public speaking, 2) offering recommendations from interviews of 10 expert public speakers in our field, and 3) practicing behavior-analytic strategies to improve speech fluency.

**Workshop 2: HALF-DAY WORKSHOP (9am – 12pm)**

**8 Leadership Lessons from Organisational Behaviour Management** - Leah Fennema Hall, BCBA; Julie Eshleman, BCBA; Ioanna Konstantinidou, BCBA  
UK-SBA OBM SIG

PRICE: Half day £45 FULL REGISTRANT / BCBA; £30 – STUDENT / BCABA (Please Note this charge is NOT covered in Conference Registration)

BCBA CEUs: 3

*Background*

Organisational Behaviour Management (OBM) is a sub-discipline of ABA which seeks to understand the influence of environmental variables on employee behaviour. The field of OBM offers a wealth of strategies and tools that can turn the process of supervision and leadership into a pleasant experience with a positive impact on supervisor and supervisee behaviour. OBM skills can help supervisors support supervisees as they learn new behaviours, achieve relevant goals, learn to assess performance related issues, and choose functionally suitable interventions. This workshop reviews eight OBM strategies regarding systems analysis, feedback, goal setting, and more which aim to equip you with knowledge that can improve your behaviour as a supervisor but also as a behaviour analyst in general.

**Workshop 3: FULL DAY WORKSHOP (9am – 5pm)**

**Sharland Foundation Early Career Researcher Event**

*Background*

This full day event sponsored by the Sharland Foundation Developmental Disabilities ABA Research and Impact Network is designed to support early career researchers in the UK and ROI, in particular PhD students, using behavioural interventions in the field of developmental disabilities. There will be three workshops, each giving participants the chance to hear from leaders in the field and providing helpful suggestions to develop your research and further your career. Throughout the day there will be space to network, both with senior researchers as well as with other early career researchers; in addition, you will have the opportunity to share your own research interests by displaying a poster, giving a presentation or providing a written summary which will be distributed to all participants.

NOTES: