



**UK Society for
Behaviour Analysis**

**BEHAVIOUR ANALYSIS:
FROM SCIENCE TO PROFESSION**

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BEHAVIOUR ANALYSIS

Behaviour Analysis is a scientific discipline concerned with understanding how people behave and respond to environmental events and, most importantly, how a person behaves with others in their social world. It has theoretical, experimental and applied branches: the Conceptual Analysis of Behaviour (theory), the Experimental Analysis of Behaviour (basic research), Applied Behaviour Analysis (applied research) and practice/service delivery. Just as physics is applicable wherever there are materials and forces, and biology is applicable wherever there is life, Behaviour Analysis is applicable wherever behaviour occurs.

In common with other scientific disciplines Behaviour Analysis has distinct research methods, scientific journals, textbooks, professional organisations and training programmes in the UK, Europe and worldwide. On-going research across all three branches of the science is leading to the development of new applications of behaviour analysis as well as strengthening the evidence base of those already established.

Thousands of studies reported in peer-reviewed journals speak to the capability of Behaviour Analysis to produce meaningful improvements in socially significant behaviours. Some of the areas in which Behaviour Analysis has evidenced effectiveness are: mainstream and special education at all levels, intellectual and developmental disabilities, attention deficit disorder, substance abuse, paediatric feeding disorders, anorexia and other eating disorders, brain injury, autism spectrum disorders, dementia, movement disorders, challenging behaviour, sports and health fitness, vehicle and pedestrian safety, organisational behaviour management, home and workplace safety, communication difficulties and delays, parenting and child welfare, gerontology, HIV prevention, language acquisition, littering, depression, anxiety, phobias, conservation of natural resources.

BEHAVIOUR ANALYSIS AS RECOMMENDED PRACTICE

Behaviourally based interventions are increasingly being recognised across the world as recommended practice. In the field of autism education, selected examples include the endorsement of Applied Behaviour Analysis (ABA) in the United States by a number of state and federal agencies including the US Surgeon General, the New York State Department of Health, Maine Administrators of Services for Children with Disabilities, the Centers for Disease Control, the National Institute of Mental Health and the California Senate Select Committee on Autism and Related Disorders. In France, ABA is endorsed by the Haute Autorité de Sante, in New Zealand by the Ministries of Health and Education and intensive behaviour interventions are the publicly funded intervention of choice in most provinces in Canada.

In the UK, behaviourally based interventions have been included in at least eight guidelines from the National Institute for Health and Care Excellence (NICE) covering: Borderline Personality Disorder, Depression, Stop Smoking Interventions,

Obesity, Dementia, ASD in adults, the management of ASD in children, and Challenging Behaviour. The Scottish Intercollegiate Guidelines Network (SIGN) supports ABA based services for individuals with autism and recently the UK's National Institute for Health Research (NIHR) published a review of the effectiveness and cost-effectiveness of Early Intensive Behavioural Intervention. They found evidence for its effectiveness in helping autistic children in vital areas such as adaptive behaviour and cognitive ability above and beyond what can be achieved by the UK's current "eclectic" treatment as usual.

ORIGINS OF BEHAVIOUR ANALYSIS

The contemporary science of Behaviour Analysis has its origins in the 1930s and 1940s in university laboratories where researchers studied behaviour-environment interactions in controlled experimental settings. Founded in 1958 the *Journal of the Experimental Analysis of Behavior* became the first outlet devoted exclusively to publishing research findings in the field.

As the knowledge base expanded so did opportunities to test the effectiveness and practicality of applying findings to more complex and more everyday, socially significant settings. The *Journal of Applied Behavior Analysis* was launched in 1968 to report research on applications of Behaviour Analysis to a wide range of socially relevant behaviours. Both journals continue to report new findings in both the experimental and applied fields of Behaviour Analysis.

BEHAVIOUR ANALYSIS KNOWLEDGE BASE: JOURNALS

Since the launch of journals reporting basic experimental and applied research in the 1950s and 1960s noted above, and with the subsequent expansion of research into a range of areas of social behaviour (health, education, speech and language, counselling and therapy, etc.), a further 23 journals devoted to Behaviour Analysis theory, research and application are now available.

- Journal of the Experimental Analysis of Behavior
- Journal of Applied Behavior Analysis
- Journal of Organizational Behavior Management
- Journal of Behavioral Education
- Journal of the Analysis of Verbal Behavior
- Behavior Analysis Research and Practice
- The Behavior Analyst Today
- The Behavior Analyst
- The Journal of Speech-Language Pathology and Applied Behavior Analysis
- Journal of Early and Intensive Behavioral Interventions
- The International Journal of Behavioral Consultation and Therapy
- The Journal of Behavioral Assessment and Intervention in Children

- The Behavioral Development Bulletin
- The Journal of Precision Teaching and Standard Celeration
- Behavior and Social Issues
- Journal of Behavior Analysis of Sports, Health, Fitness, and Behavioral Medicine
- Journal of Behavior Analysis of Offender and Victim: Treatment and Prevention
- Behavioral Health and Medicine
- Behavior Therapy
- Behavior and Philosophy
- Perspectives on Behavior Science
- European Journal of Behaviour Analysis
- Mexican Journal of Behavior Analysis
- Brazilian Journal of Behavior Analysis
- Japanese Journal of Behavior Analysis

Behaviour-analytic research is also published in the following journals:

- American Journal of Psychology
- Journal of Chronic Diseases
- Journal of Experimental Child Psychology
- Current Developmental Disorders Reports
- School Psychology Review
- Psychiatric Research Reports
- Seminars in Speech and Language
- Journal of Autism and Developmental Disabilities
- Journal of Autism and Developmental Disorders
- Psychological Review
- Journal of Clinical and Adolescent Psychology
- Behaviour Research and Therapy
- Journal of Applied Research in Intellectual Disabilities

BEHAVIOUR ANALYSIS KNOWLEDGE BASE: CORE TEXTS

In common with other science-based fields, there are many textbooks devoted to the overall theory, research and application of Behaviour Analysis and a considerable number relating to specific areas of application. Too many to include here. However, the following publications can be considered core texts used to support education and training in Behaviour Analysis.

- Bailey, J. S., Burch, M. R. (2016). Ethics for Behavior Analysts (3rd edition). New Jersey: Lawrence Erlbaum.
- Chance, P. (2013). Learning and Behavior (7th Edition). Belmont, CA: Wadsworth Publishing.
- Cooper, J. O., Heron, T. E., Heward, W. L. (2013). Applied Behavior Analysis (2nd Ed). New Jersey: Pearson.
- Fisher, W., Piazza, C., Roane, H. (eds). (2013). Handbook of Applied Behavior Analysis. NY: Guilford Press.

- Grant, L., Evans, A. (1997). Principles of Behavior Analysis. London: Harper Collins.
- Johnston, J.M., & Pennypacker, H.S. (2009). Strategies and tactics of behavioral research (3rd ed.). New York: Routledge.
- Lattal, K., Chase, P.N. (Eds) (2003). Behavior Theory and Philosophy. NY: Kluwer Academic/Plenum.
- Malott, R. W., Trojan, A. (2007). Principles of Behavior. New Jersey: Pearson.
- Meyer, G. R. Sulzer-Azaroff, B. Wallace, M. D. (2011). Behavior Analysis for Lasting Change. (2nd Edition). Sloan Educational Publishing.
- Pierce, W. D., & Cheney, C. D. (2013). Behavior analysis and learning (5th ed.). New York, NY, US: Psychology Press
- Schlinger, H.D., (1995). A Behavior Analytic View of Child Development. New York: Plenum Press.
- Vargas, J. S. (2009). Behavior Analysis for Effective Teaching. Routledge.

PROFESSIONAL ORGANISATIONS

As research findings continued to be shared and interest in the field expanded, a group of academics established the ***Experimental Analysis of Behaviour Group (EABG)*** in the United Kingdom in 1963. The group hosted annual meetings to share findings from research conducted in the UK and further afield. The EABG continues to host meetings in London (currently biennially) with participants working in a range of research and applied areas of the discipline and with worldwide representation.

Also in Europe, The ***Norwegian Association for Behaviour Analysis*** came into being in 1973. It continues to own the ***European Journal of Behaviour Analysis*** which is published by The Taylor & Francis group of academic publishers.

In 2000 the ***European Association for Behaviour Analysis (EABA)*** was established. This group sought to promote Behaviour Analysis across Europe, represent behaviour analysts across Europe, represent Europe in relations with other behaviour analysis organisations around the world and organise European conferences in Experimental and Applied Behaviour Analysis. EABA currently holds biennial meetings on alternate years to that of EABG so that Behaviour Analysts in Europe can attend at least one European based international conference in their field every year.

With the establishment of university degrees in Behaviour Analysis in the United States during the 1960s and 1970s (Arizona State University, Florida State University, University of Illinois, Indiana University, University of Kansas, University of Oregon, University of Southern Illinois, University of Washington, West Virginia University and Western Michigan University) leading to further advances in the knowledge base, the ***Association for Behavior Analysis International (ABAI)*** was founded in 1974 as a membership organisation to serve the needs of scholars and practitioners interested in the theory, science, application and teaching of Behaviour Analysis. It holds an annual convention in the USA and an international conference biennially. Currently, it has 7,500 members worldwide and affiliated chapter membership of

more than 28,000. ABAI also supports the following 36 Special Interest Groups (SIGs) as well as affiliated chapters in the USA and worldwide (see below).

ABAI Special Interest Groups (SIGs)

Autism	Gambling
Behaviour Analysis & Selectionist Robotics	Health, Sport and Fitness
Behavior Analysis & Technology	History of Behavior Analysis
Behavior Analysis and the Arts	Multicultural SIG: Multicultural Alliance of Behavior Analysts
Behavior Analysis for Sustainable Societies	Neuroscience
Behavior Analysis in Military and Veterans' Issues	Organizational Behavior Management Network
Behavior Analyst Online	Pediatric Feeding Disorders
Behavioral Development	Positive Behavior Support
Behavioral Gerontology	Practitioner Issues in Behavior Analysis
Behavioral Medicine	Rehabilitation & Independent Living
Behaviorists for Social Responsibility	Sexual Behavior: Research & Practice
Clinical	SIG Español
Crime, Delinquency, and Forensic Behavior Analysis	Speech Pathology
Direct Instruction	Standard Celeration Society
Dissemination of Behavior Analysis	Teaching Behavior Analysis
Ethics and Behavior Analysis	Theoretical, Philosophical & Conceptual Issues
Experimental Analysis of Human Behavior	Translational Research
	Verbal Behavior

ABAI Affiliated Chapters

In addition ABAI supports chapters worldwide including but not exclusively:

ABA Australia	Australian Association for Cognitive Behaviour Therapy
ABA Colombia	Behaviour Analysis in Ireland
ABA España	Bermuda ABA
ABA Germany	British Columbia ABA
ABA India	Central China ABA
ABA of Brazil	Chinese ABA
ABA of Italy (IESCUM)	Experimental Analysis of Behaviour
ABA Saudi Arabia	Group UK and Europe
ABA Switzerland	Hong Kong ABA
ABA Turkey	Icelandic ABA
Alberta ABA	Israel ABA
Association Française—Les Professionnels de l'Analyse du Comportement	Japanese ABA
Atlantic Provinces ABA	Jordanian ABA
	Kenya ABA
	Korean ABA

Korean Association of Child and Adolescent Behavior Therapy
Lebanese ABA
Manitoba ABA
New Zealand ABA
Norwegian ABA
Ontario ABA
Philippines ABA

Polish Association of Behavioral Therapy
Polish Society for Behavioral Psychology
Québec ABA
Sociedad Mexicana de Análisis de la Conducta
Swedish ABA
Taiwan ABA

CERTIFICATION & ACCREDITATION FOR PRACTISING BEHAVIOUR ANALYSTS

As an accumulating research base has continued to advance and improve the field of Behaviour Analysis, organisations in both private and public sectors and society at large have become aware of the potential and capabilities of the field in a range of areas involving health and social care. Demand has grown significantly, with consumers and employers increasingly seeking-out behaviour analytic services from trained professionals. In response to this demand, specialists in the field have addressed the challenge of how to identify and ensure that quality services – practical and ethical – are delivered to the increasing number of consumers requesting such services.

Much of the early demand for behaviour analytic services originated in the US and, not surprisingly, the first steps taken towards the establishment of educational and professional standards were taken in the USA. Based on a certification program developed by behaviour analysts in Florida, the Behavior Analyst Certification Board® (BACB®) was founded in 1998. Its goal was “to develop, promote, and implement a national and international certification program for behavior analyst practitioners” (2007, bacb.com). The BACB® has established and continues to define the knowledge and skills, standards, and criteria for the credentialing process that are designed to meet the “best practice” and ethical standards of the profession of Behaviour Analysis. Although originating in the US, demand for similar training and credentialing standards elsewhere has led to the BACB® being internationally recognised. Whilst regulatory and qualifications frameworks around the world vary and necessitate standards and credentialing systems that map onto local requirements, many training courses and credentialing systems map onto or are based on the standards set by the BACB®.

Details of education, training and professional conduct standards required of practising behaviour analysts in the UK are in these documents:

Standards of Education, Training and Experience for Behaviour Analysis (2019)
<https://uk-sba.org/wp-content/uploads/2020/06/STD-9-Training.pdf>

Code of Ethical and Professional Conduct (2019): https://uk-sba.org/wp-content/uploads/2020/02/Code-of-Ethical-and-Professional-Conduct-January-19_approved-JM-Feb-2020.pdf

BEHAVIOUR ANALYSIS IN THE UK

Behaviour Analysis has a well-established history of basic scientific research, applied science and service development in the UK. As noted above, the Experimental Analysis of Behaviour Group, founded in the UK in 1963, was the first Behaviour Analysis association to be founded worldwide. The group continues to provide a forum for the discussion of research and other professional activities of members, many of whom are also members of the Association for Behavior Analysis International (ABAI), of which the group is an affiliated chapter. The EABG aims to promote closer collaboration between behaviour analysts working in different universities throughout Europe and has been a consistent venue for European behaviour analysts to meet. The group is primarily UK based, but draws on an informal membership across Europe and further afield. The EABG biennial conference has become an important milestone in the Behaviour Analysis calendar, as a forum for discussion and dissemination of new developments. Research interests of the EABG members include, among other topics: analysis of verbal behaviour, Behaviour Analysis in education (e.g., Direct Instruction, Precision Teaching), clinical and remedial therapy, information technology, Early Autism Intervention, staff productivity and organisational behaviour management (OBM), workplace safety, paediatric feeding disorders, behavioural gerontology and gambling behaviour.

It was not until the 1990s however that consumer demand for behaviourally-based interventions increased – specifically in relation to the education and support of children with autism. The first home-based ABA programme in England was set up in 1994. In 1997 the first ABA schools for children with autism, TreeHouse and Jigsaw Schools, were established. At that time there was no training in the UK in ABA and home programmes, schools and provider organisations relied on specialist support from outside of the UK. In 2001 a group of Behaviour Analysts based in the UK and Ireland set up the ABA Lecturers' Cooperative. In association with the charity behind TreeHouse School, they developed the first BACB® approved course sequence in the UK. As it was not University based (one of the requirements of the BACB®) it was approved through the State of Florida University. It formed the basis of the development of Behaviour Analysis training across Europe, the first of which was the MSc in ABA at Bangor University Wales in 2003. Today there are 5 BACB approved courses in the UK from which over 900 students have graduated with an MSc in ABA, with an increasing trend in applications year on year.

It was noted above that expertise for behaviourally based interventions for children with autism in the UK initially came from elsewhere. In 2000 there were no European Board Certified Behaviour Analysts (BCBA®) or Board Certified Assistant Behaviour Analysts (BCaBA®) certificants. In 2001 the first BACB® was awarded in the

UK. There are now over 533 BACB registrants across the UK. Whilst we estimate the number of practitioners working in the field to be significantly higher, this does give an indication of a growing field and an associated level of risk around unregulated practice.

The UK Society for Behaviour Analysis (UK-SBA) seeks to contribute to public wellbeing both through the application of Behaviour Analysis and by ensuring that behaviour analysts practice safely, competently and ethically.

Over the last decade there has been an increasing demand in the UK for professionals in the field of Behaviour Analysis, particularly in providing support to individuals with learning disabilities and challenging behaviour, as well as providing early intervention and on-going educational support for individuals with autism. Behaviour analytic interventions are also increasingly recommended as evidence-based treatments within the UK (see pages 2-3 this document).

With the number of trained and professionally credentialed Behaviour Analysts in the UK continuing to grow, the UK-SBA has identified risks to the public of unregulated practice and, as a membership organisation, has created a professional Register as a way of helping members of the public find practitioners and check the qualifications, certification and experience of any individual they are considering employing or working with.