



This document is a directory of completed and ongoing research into MiSP programmes, [.b](#), [Paws b](#) and [.b Foundations](#), as at 1st August 2015.

Research shows that MiSP’s programmes have the potential to improve some pupils’ attention and wellbeing. [.b](#) has been associated with improvements in pupils’ attentiveness, mindfulness, resilience and wellbeing, and with reductions in depressive symptoms and perceived stress. [Paws b](#) has been associated with improvements in some pupils’ ability to pay attention and inhibit distractions, manage their emotions, and to regulate their own behaviour. [.b Foundations](#) has been associated with improvements in schools staff’s mindfulness, well-being and self-compassion, and decreases in stress. On-going research in the UK and internationally is evaluating the programmes effect on other psychological and academic factors, and how feasible .b is for pupils with Autism Spectrum Disorders. The studies are presented in order, beginning with completed research. Links are provided to online versions where possible.

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.b research

Completed studies

UK

2008: "A controlled trial of mindfulness training in schools: The importance of practice for an impact on well-being"

Professor Felicia Huppert and Daniel Johnson, University of Cambridge
Working with Richard Burnett and Chris Cullen, MiSP co-founders

The first pilot study of .b took place in 2008 at Tonbridge School and Hampton School, which are independent boys' schools. An early 4 lesson version of .b was taught by Richard Burnett and Chris Cullen to 78 boys, and their outcomes were compared to 56 boys in a control group. The scales used were Mindfulness CAMS-R, Ego-Resilience ERS, Wellbeing WEMWBS, and personality TIPI. The immediate and longer term (3 months later) changes on these measures were not significant, but there were significant associations between changes in wellbeing and mindfulness with the amount of practice the boys did. Acceptability was high, and 42% of the boys thought the course should be longer than 4 weeks.

This study was published in the Journal of Positive Psychology, and an author-version is available here

<http://mindfulnessinschools.org/wp-content/uploads/2013/03/Mindfulness-in-schools-pilot-study-2008.pdf>

2009: Development of the .b programme

Dr Chris O'Neil, MSt in Mindfulness Based Cognitive Therapy
.b co-author

Chris co-developed an early version of the 8 lesson form of .b with Burnett and Chris Cullen. He was particularly skilled at mapping it to the format and principles of MBCT. Many of the images, tasks and pupil-friendly approaches in the early drafts of the .b programme were inspired by Chris's vision for engaging young people in mindfulness.

2009: "Mindfulness in Schools: Learning lessons from the adults: Secular and Buddhist"

Richard Burnett, MA Buddhist Studies
MiSP co-founder and .b co-author

Completed and current research into MiSP programmes: .b, Paws.b and .b Foundations, 1/8/15

This study is an account of the ways in which an exploration of adult mindfulness - both secular and Buddhist - informed Richard's approach to co-authoring the .b programme with Chris Cullen and Chris O'Neil. The report weaves semi-structured interviews with eminent mindfulness teachers with Richard's own experience of teaching mindfulness to teenagers in the classroom. Important themes included balancing calm and insight, being clear about the objectives of teaching mindfulness in this context, building an appropriate scaffold around the teaching, and ethical issues.

This paper was published in The Buddhist Studies Review in 2011, and is available here

<http://mindfulnessinschools.org/wp-content/uploads/2013/03/Mindfulness-in-schools-dissertation-Burnett.pdf>

2011: "The immediate and sustained effects of the .b mindfulness programme on adolescents' social and emotional well-being and academic functioning"

Sarah Hennelly, MRes Psychology, Oxford Brookes University
.b teacher & MiSP Research Manager

Whilst volunteering at Oxford Mindfulness Centre, Sarah heard about the Mindfulness in Schools Project, and offered to implement and help research the programme in schools in Oxfordshire. Her study followed up the Huppert and Johnson study, but used an early 8-lesson version of .b. 68 eight students, aged 11-17, from typical, mixed-gender secondary schools took part in the .b course, and their immediate and sustained outcomes were compared to matched controls. There were significant differences between participant and control groups' mindfulness (CAMS-R), ego-resilience (ERS) and well-being (WEMWBS), and immediate effects were exceeded by sustained effects at 6 months. Semi-structured interviews with students, teachers and parents revealed effects on adolescents' awareness, self-regulation and psychological characteristics. Self-Determination Theory and Self-Efficacy provided theoretical frameworks within which to describe the effects of mindfulness training on motivation and confidence, competence and effectiveness. This study is available here

<http://mindfulnessinschools.org/wp-content/uploads/2013/03/Immediate-and-sustained-effects-of-dot-b.pdf>

2012: "A mixed methods investigation of how secondary school pupils perceive the impact of studying mindfulness in schools, and barriers to its successful implementation"

Robert Kempson, Doctorate in Educational Psychology, Cardiff University
Working with Richard Burnett, MiSP co-founder and .b co-author

Robert Kempson researched the effects of the same early 8 lesson version of .b with 46 pupils at Tonbridge School (Year 9) and a mixed state secondary school (Year 7). This study investigated whether children in independent and state schools had different views about .b, whether gender made a difference, and children's perceived barriers to practicing mindfulness. Data was collected using an idiosyncratic online questionnaire, focus groups and semi-structured one-to-one interviews.

Completed and current research into MiSP programmes: .b, Paws.b and .b Foundations, 1/8/15

The proportions of pupils who found .b at least moderately helpful for different aspects of life were as follows: Helpful in daily life: 70%; Focus, concentration, paying attention: 80%; Managing stress: 91%; Managing emotions: 63%; How I see myself and the world: 65%; Improved interpersonal relationships: 43%; Completing schoolwork: 56%; Performance in music, sport, or art: 62%. These ratings were consistent across both schools, and for girls and boys.

The interviews yielded six themes, including Relaxation & Calm, Perspective, Self-Transformation, Control, Functioning, and Specific Coping Strategy. Barriers to practice included curriculum- and pupil-related issues, and environmental factors.

This study is available here

<http://orca.cf.ac.uk/39467/1/2012KempsonRDEdPsy.pdf>

2012: "Mindfulness with children and adolescents: current research and future directions"

Verity Holland, Doctorate in Educational Psychology, Southampton University

.b teacher

Verity was part of the second cohort of .b teachers, and she studied the effects of the first release of .b on the well-being and academic functioning of 72 11-12 year olds in mixed, mainstream education, with a control group of 48 children. In comparison to controls, the .b group's resilience (ERS) increased, and stress (ASQ) decreased, by the end of the 8 week course, and teachers reported decreased inattentiveness (TRF). The changes in mindfulness (CAMM), aggressive behaviour (TRF), and academic performance in comparison to National Curriculum levels for English & Maths (2011, 2012) were not significant. School staff considered the course to be worthwhile. They noticed that some higher-needs children were calmer and were using the practices to cope with difficult moments, and that some children had taught the practices to their families.

This study is available here:

<http://eprints.soton.ac.uk/359646/1.hasCoversheetVersion/Thesis%20V%20Holland%20with%20amendments%20Aug%202012.pdf>

2012: "Cognitive Behavioural Therapy Approaches to Behaviour and Attendance in Schools"

Linda Gutierrez Powys County Council - Youth Intervention Service Co-ordinator.

.b teacher

This study researched the effects of CBT and .b in schools in Powys, Wales. 37 Year 8 .b students fared less badly and were more able to manage difficult situations than matched controls during what was a very disturbed time in their schools, measured using Pupil's Attitude towards Self and School (PASS) and Locus of Control. This was a report to the Welsh Assembly as part of the National Behaviour and Attendance Review in Wales.

2013: “Effectiveness of the Mindfulness in Schools Programme: non-randomised controlled feasibility study”

Willem Kuyken, Katherine Weare, Obioha Ukoumunne, Rachel Vicary, Nicola Motton, Richard Burnett, Chris Cullen, Sarah Hennelly, & Felicia Huppert.

Working with a team of .b trained teachers.

This was a larger controlled trial, funded by Exeter University, which took place in 12 secondary schools in England.

Measures included WEMWBS (Wellbeing), PSS (Perceived Stress), and an eight item version of the CES-D (Centre of Epidemiologic Studies Depression Scale) at baseline, post-course and three-month follow-up. 256 pupils took part in .b, and their results were compared to 266 pupils in a matched control group. .b students also rated the acceptability of .b. Relative to the controls, and after adjusting for baseline imbalances, children who participated in the intervention reported significantly fewer depressive symptoms post-course and at follow-up, and significantly lower stress and greater wellbeing at follow-up. The degree to which students in the intervention group practised the mindfulness skills was associated with better wellbeing and less stress at three-month follow-up. Rates of acceptability were high.

This study was published in the high profile British Journal of Psychiatry, and made “open access”, which means it is freely available.

The full report is available here <http://mindfulnessinschools.org/wp-content/uploads/2013/02/Kukyen-20-June-2013.pdf>.

Current studies

UK

Large-scale trial will assess effectiveness of teaching mindfulness in UK schools

The Oxford Mindfulness Centre, at the University of Oxford, is delighted to announce the launch of the Mindfulness and Resilience in Adolescence (MYRIAD) project. This Wellcome Trust Strategic Award will ask whether mindfulness training for teenagers can improve their mental health and resilience.

The three-part study includes a large randomised control trial of mindfulness training compared with 'teaching as usual' in 76 schools, which will involve nearly six thousand students aged 11 to 14. Other parts of the study are a programme of experimental research to establish whether and how mindfulness improves the mental resilience of teenagers, and an evaluation of how best to train teachers to deliver mindfulness classes to students.

The £6.4 million research programme will be carried out by teams at the University of Oxford, UCL (University College London) and the University of Cambridge MRC Cognition and Brain Sciences Unit, in collaboration with King's College London and the University of Exeter, over seven years.

Full details are available here:

<http://www.oxfordmindfulness.org/wp-content/uploads/myriad-project-launch-16-july-2015.pdf>

"A mixed-methods feasibility study of the effectiveness of implementing a mindfulness based curriculum to adolescents attending an alternative education provider (AEP) in Northern Ireland."

Tara Shine, Doctorate in Educational, Child and Adolescent Psychology, Queens University Belfast.
2014-2016
.b teacher

A no-control mixed-methods feasibility study with 8 pupils aged 14-16, all attending an alternative education provision, referred by CAMHS (Child and Adolescent Mental Health Service). Measures include SDQ, CAM-R, WEMWBS, and AFQ-Y at baseline, post-course, and 4 month follow-up. 6 teaching staff in the education centre completed the Teacher ratings of the pupils' social, emotional and behavioural skills using the SDQ Teacher Form. Parents also completed the SDQ Parent Form. Qualitative data was collected during interviews and focus groups with adults and children at the end of the course and at follow-up, in order to assess the acceptability of .b for this group of higher-needs children. Students were asked to give their views on training; how it was useful, what techniques they will use in the future, what they enjoyed the most/least and suggestions/recommendations for future use in the specific/comparable educational setting. The school's Vice Principle and CAMHS Occupational Therapist interviews explored feasibility and acceptability.

Completed and current research into MiSP programmes: .b, Paws.b and .b Foundations, 1/8/15

“Cardiff Professional Learning Community on Mindfulness .b: small scale research in three secondary schools in Cardiff to evaluate the impact of .b.”

Kerry Webster, Educational Psychologist, Cardiff High School

Clare McRobbie, Head of Pupil Development and Wellbeing at Cathays High School

Joanna Hughes, .b teacher for Bishop of Llandaff High School.

.b teachers.

To be completed in 2015

A controlled pilot study of .b for Year 9 and 10 pupils in 3 secondary schools in Cardiff, evaluating effects using the Strengths and Difficulties questionnaire (SDQ). The schools are diverse - Cathays High School is an inner city school and has around 950 pupils, 37% of whom are entitled to free school meals, which is much higher than the national average. 75% of pupils are from ethnic backgrounds other than White British; mainly Somali, Czech or Slovak Roma, Bangladeshi or Pakistani. Over 63 different languages are spoken as a first language in pupils' homes. Bishop of Llandaff is a mid-SES and predominantly white British demographics, and Cardiff High is a mid-SES school; 37% of pupils come from ethnic backgrounds other than White British.

Effects of .b on coping, self compassion and mindful attention and awareness

Sallyann McMahon, MSc in Child Development in University College London, UCL

Working with Becky Turnall at AGGS, .b teacher

An uncontrolled study with 60 students. Evaluating the effects of .b using baseline, post-course & 2 month follow-up, + focus groups. Measures are Adolescent Coping Scale, the Self-Compassion Scale, & the Mindfulness Attention Awareness Scale – Adolescents.

“How can mindfulness be implemented into the school once the .b programme has finished?”

Sam Houlson

Doctoral Training in Educational Psychology at Bristol University

Working with .b teacher Amanda Tyler in Devon

Action Research: Focus groups with pupils and teachers – how can mindfulness can be implemented into the school once the .b programme has finished? Each group will meet 3 or 4 times.

Completed and current research into MiSP programmes: .b, Paws.b and .b Foundations, 1/8/15

The Effects of the .b Mindfulness programme on levels of Self-Concept, Mindfulness, Anxiety and Anger in Adolescents with ASD.

Teresa Wheeler , Trainee Educational Psychologist
Working with Karen Turner, .b teacher.

A mixed-methods approach, this study obtained the views of the pupils to explore what factors hindered and supported their engagement and practice. Currently analysing qualitative & quantitative data.

Cumbria Country Council

Jo Bentley
.b teacher
Research lead Jane Mathieson

Headstart Project, funded by Big Lottery. Headstart have appointed Anna Freud Centre as research partner. Measures include Headstart's validated resilience measure, with a 12 month follow-up.

This study includes an evaluation of how to successfully implement and embed the MiSP best practice model across an 'ecosystem' – beginning with the initial HeadStart areas (Barrow and Carlisle) and rural South Lakeland. [Have asked for more info on this 8/3/15.](#)

Durham Public Health, with Teesside and Newcastle Universities

Grant McGeechan – Health and Social Care Institute – Teesside University
Catherine Richardson – Public Health Team – Durham County Council
Dorothy Newbury-Birch – Health and Social Care Institute – Teesside University
Dr Suzanne Moffatt – Institute of Health and Society - Newcastle University

Feb 2015 to April 2016.

Public Health Durham funded, mixed methods study in 8 schools. There are approximately 600 pupils per school, the number participating in the study is not known at the moment.

Measures include FFMQ, CES-D and WEMWBS at baseline, post-course and six month follow-up. Effects on academic achievement will be evaluated by comparing expected and achieved GCSE and A-level results for pupils taking these exams.

Incentivised focus groups will be conducted with pupils. Focus groups will also be conducted with teachers who completed their mindfulness training with Living Mindfully, were trained to teach .b by MiSP, and then delivered .b to pupils. Data will be analysed using Thematic Analysis.

"Investigating whether the .b mindfulness course effects pupils' self-compassion"

Heather Grace MacKenzie
Masters in Mindfulness Studies, Aberdeen University
.b teacher

Uncontrolled small study of effects of .b on self compassion, using SCS and teacher appraisal.

International

Finland

"Multidisciplinary assessment of the outcome of Mindfulness intervention on attention, learning, and overall well-being among 12-15 year old students, and on well-being at work among teachers"

Ase Fagerlund, Professor, Nordic School of Public Health, Sari Markkanen, .b teacher trainer, Maarit Lassander, Health psychologist & PhD researcher, and Salla-Maarit Volanen Professor, Nordic School of Public Health, Sweden, and Folkhälsan Research Centre, Finland.
.b teachers
Finnish and Swedish translation of .b.

This is a large randomised controlled trial of .b in Finland, with 2000 students aged 12-15 in 80 classes, randomly assigned to control or .b arms. The overall aim is to investigate whether mindfulness has the potential to strengthen individuals' internal resources that support learning and well-being at school and in general. Measures will include Immediate and sustained effects on experienced and objective attention, learning, resilience, mental health, and well-being at school and in general. The study will assess whether mindfulness has an effect on pupils' conduct problems, social relationships and the classroom social climate, and the effects of .b mindfulness on teachers. The outcomes will be measured at baseline (pre-intervention), in the middle of the intervention, post-intervention, 6 months follow-up, one year follow-up, and if possible, then linkage to registers in order to secure a longer period follow-up. Objective psycho-physiological and neuro-psychological measures will be collected from subset of students during the sessions and across the intervention period, e.g. NEPSY-II. Full protocol due soon.

Ireland

"A mixed method evaluation of Adolescents' experiences of the .b Mindfulness in Schools Programme"

Barbara Duffy, Doctorate in Clinical Psychology (Top Up), City University, London.
.b teacher

This is a randomised, controlled, mixed-methods study. 100 students aged 15-18 from two mixed and two single gender typical Irish secondary schools will complete .b, and there will be a matched

control group at each school. The study will evaluate the immediate and sustained effects of .b on mental health measures, including anxious and depressed mood, anger, disruptive behaviour, self-concept and emotional regulation, utilising The Beck Youth Inventories II (BYI), The Difficulties in Emotional Regulation Scale (DERS) and the FFMQ. Focus group discussions will investigate the students' experience of learning .b, and its effects on self-perception and mindfulness development.

Australia

“Mindfulness in Schools, a transdiagnostic prevention programme”

Catherine Johnson, PhD researcher. Flinders University, Australia, 2014 - 2017

.b teacher

This PhD study has 2 stages, both RCTs, of which the pilot study has been completed and is now being prepared for publication.

The focus is on whether .b has an effect on anxiety, depression and eating disorder risk factors. Stage 1 was a pilot study with 294 students in 5 co-educational secondary schools in Adelaide, covering a broad range of socioeconomic demographics, with baseline, post-course and 10 week follow-up measures. Measures include depression and anxiety (DASS), weight and shape concerns (EDE-Q), wellbeing (WEMWBS), and emotional regulation (DERS), self-compassion (SCS), mindfulness (CAMM & CHIME). No significant effects were found, and the researcher suggests that this may be due to only 8% of pupils undertaking home practice, being an external teacher, and merging the introduction and lesson 1. Stage 2 is a larger RCT of 9 lessons with randomisation at class level within schools involving 525 pupils and a longer follow up (12 months). There will be 3 groups, control, .b, and .b + reinforcement from parents. The .b programme in both groups will include structured reinforcement from teachers to mimic the advantages of embedded teachers. Parents in the third group will attend a single information session + access weekly password-protected 10 minute YouTube clip summarising the key points of each lesson + home practices. This study includes validating a youth version of the CHIME questionnaire.

Canada

“Promoting Socioemotional Outcomes in Youth with Autism via Mindfulness Training”

Katherine Thom, Master's of School Psychology at the University of Manitoba, Winnipeg. 2014-2015

.b teacher

This is a mixed methods feasibility study. 15 adolescents aged 13 -17 years, with previous diagnosis of ASD, Asperger disorder, or Pervasive Developmental Disorder Not Otherwise Specified based on DSM-V-TR or DSM-V criteria, took part in a .b a course. Measures include the Weschler Abbreviated Scale of Intelligence- Second Edition (WASI-II), and the Autism-Spectrum Quotient (AQ)—Adolescent Version at baseline only, Mindfulness (CAMS-R), Difficulties in Emotion Regulation Scale (DERS), Emotional Quotient Inventory: Youth Version (EQi – YV), and the Behavioural Assessment System for Children (BASC-2: SRP, and BASC-2: PRS). The young people and their parents were asked to provide feedback on the acceptability and feasibility of the intervention - the responses from teens and their

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parents were so positive and so strong that, based on demands voiced by participants, the researcher is holding a monthly ".b graduate group."

Hong Kong

"Teaching Mindfulness in Secondary Schools: The Effects on Stress Reduction and Psychological Well-Being"

Shui-fong Lam, Ph.D., Associate Professor at Hong Kong University,
.b teacher

Chinese translation of .b. Randomized control trial with waitlist design. The experimental group (n = 25) is taking .b in March and April, waitlist control group (n = 25) will take it in June and July. All the participants are 11 graders who will take the college entrance examination next year. Measures include Brief Test Anxiety Scale (BTAS), Brief Self Control Scale (BSCS), Cognitive and Emotional Regulation (CERQ), and General Health Questionnaire (GHQ).

Singapore

Geriatric study

Ng Yuen Yen
.b teacher

Feasibility of .b (Chinese) with elderly patients who have memory impairment and early dementia, to improve their attention and focus.

Ng's feedback so far:

"I am sharing with you my joy and delight that the 20 + elderly patients love the .b power point presentations, and videos, and I am seeing progress in their concentration! I am only into 3rd lesson, of recognizing worry! They have dementia, early to moderately severe.. I spend 40 mins with the group. A drama therapist deepens mindfulness practice for a smaller group of 3. There was an elderly retired teacher, said that he wished he had learnt earlier as he had felt tightness in chest for a long time! He becomes more aware of his surroundings too. A lady, said - AH! Breathing controls my life. She was so proud of this insight she had! Another said- everything appears brighter!

Collaboration .b teachers with geriatrician(s) who works in a multidisciplinary group believing in mindfulness; can do wonders for the welfare n happiness of the "demented" patients who requires patience n training. Yes, I know .b program is for children, 11-18 years of age. But demented elderly are also "children" in elderly bodies, regressing for lack of training.

Besides, research sprouting out from fertile UK soil in this field of dementia will be more impactful for the world as we are facing a silver tsunami with 1 in 2 > 80 yrs old having risk of dementia. Hoping that research by a more confident crowd can leap frog the elderly care as a silver lining :))"

Measures used in .b studies

Acronym	Test	Author	Year
AB	Attentional Blink Test	Raymond, Shapiro & Arnell	1992
AFQY	Avoidance and Fusion Questionnaire for Youth	Greco, Lambert & Baer	2008
ACS	Adolescent Coping Scale	Frydenberg & Lewis	1993
AQ	Autism-Spectrum Quotient	Baron-Cohen	2001
ASQ	Adolescent Stress Questionnaire	Byrne, Davenport & Mazarov	2007
BASC-2: SRP; PRS	Behavioural Assessment System for Children	Reymolds & Kamphaus	2011
BTAS	Brief Test Anxiety Scale	Von der Embse, Kilgus, et al	2013
BSCS	Brief Self Control Scale	Tangney, Baumeister, & Boone	2004
BYI	Beck Youth Inventories II	Beck, Beck, Jolly & Steer	2005
CAMM	Child & Adolescent Mindfulness Measure	Greco, Baer & Smith	2011
CAMS-R	Cognitive and Affective Mindfulness Scale-Revised	Feldman, Hayes, Kumar, Greeson, & Laurenceau	2006
CERQ	Cognitive and Emotional Regulation Questionnaire	Garnefski, Kraaij, & Spinhoven	2001
CES-D	Centre of Epidemiologic Studies Depression Scale (8 item version)	Coyle & Roberge	1992
CHIME	Comprehensive Inventory of Mindfulness Experiences	Bergomi, Tschacher & Kupper	2014
D2	Concentration and Endurance	Brickenkamp & Zilmer	1988
DERS	Difficulties in Emotion Regulation Scale	Gratz & Roemer	2004
EDE-Q	Eating Disorder Examination Q	Fairburn and Beglin	1994
EQI-YV	<i>BarOn emotional quotient inventory: Youth version.</i>	Bar-On & Parker	2000
ERS	Ego-Resilience Scale	Block & Kremen	1996
GHQ	General Health Questionnaire	Goldberg	1992
LoC	Locus of Control for Children	Nowicki & Strickland	1973
MAAS-A	Mindfulness Attention Awareness Scale – Adolescents	Brown	2011
NEPSY-II	Developmental neuropsychological test	Korman et al	2007
PASS	Pupil's Attitude towards Self and School	GL Assessment	
PSS	Perceived Stress	Cohen & Williamson	1988
RTT	Reactions to Tests	Sarason	1984
SCS	Self Compassion Scale	Neff	2011
SDQ	Strengths and Difficulties Questionnaire	Goodman	1997
STAI	State Trait Anxiety Inventory	Spielberger & Sydeman	1994
Stroop Test	Attention Test	Stroop	1935
TIPI	Ten Item Personality Measure	Gosling, Rentfrow, & Swann	2003
TRF	Teacher Report Form	Edelbrock & Achenbach	1984
WASI-II	Weschler Abbreviated Scale of Intelligence- Second Edition	Wechsler	2011
WEMWBS	Warwick Edinburgh Mental Wellbeing Scale	Tennant et al	2007

Paws b

Completed research

UK

“Mindfulness training in primary schools: Pilot neurocognitive evaluation”

Dr. Dusana Dorjee and Sarah Silverton

Controlled pilot project which has provided initial evidence on effectiveness of Paws b in primary schools, to inform possible implementation into school curricula. The programme has been delivered over three academic terms in two primary schools (Years 3, 4 and 6), with teachers training in .bF first, then training to teach Paws b after six months (if they had established sufficient mindfulness practice), and delivering the curriculum to their pupils afterwards. Questionnaire-based evaluations of mindfulness and well-being have been conducted before and after completion of teacher training and pupil training, and compared to assessments from a comparison school not receiving the intervention. Neurocognitive evaluations conducted with pupils have been conducted using a portable EEG (brain wave) system, with measurements focusing on changes in emotion regulation and attention control in relation to self-report data on mindfulness and well-being. For more information, please see <http://mindfulbrain.bangor.ac.uk>

Papers in submission 03/03/15

“Evaluating the impact of mindfulness attention state training on typically developing Primary School aged pupils’ attention and academic proxy measures”

George Thomas, Doctorate in Educational and Child Psychology at Manchester University
2013-2015

A randomised control trial was undertaken in a mixed comprehensive primary school. Thirty Year-4 pupils were recruited ($n = 15$ females); 16 ($n = 7$ females) were randomly allocated to the experimental group, leaving 14 pupils ($n = 8$ females) in the waitlist control group. There were four time-points 6- to 8-weeks apart. The experimental group received Paws b between Baseline and Time-1; the waitlist control group received Paws b between Time-1 and Time-2.

At all time-points, teachers completed the Attention Checklist (Das, 2002) and pupils completed the 'naming total errors' and 'inhibition total errors' sections of the NEPSY-II (Korkman, Kirk & Kemp, 2007) inhibition subtest. Post-intervention focus groups and semi-structured interviews were held with a subset of pupils and their class teachers, respectively.

Naming and inhibition total errors scores decreased significantly from pre- to post-intervention within both groups, and although the intervention effect was not maintained within the waitlist control group at the 6-week follow-up, the intervention effect was maintained within the experimental group at both the 8-week and 14-week follow-ups. Furthermore, Attention Checklist scores increased significantly from pre- to post-intervention within the experimental group, and

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although the intervention effect was not maintained at the 8-week follow-up, it was re-maintained at the 14-week follow up.

Thematic analysis revealed a number of themes pertaining to the beneficial aspects of Paws b, including the fact that Paws b was well evaluated by pupils and their class teachers; there was a positive interface between pupils and Paws b; and, Paws b led to pupils making cognitive, emotional and behavioural gains.

Current research

UK

“Neurocognitive evaluation of mindfulness training in primary schools”

Rebekah Kaunhoven, PhD researcher, Bangor University and the CMRP, 2013 - 2016
Supervised by Dr. Dusana Dorjee
Paws b teacher Sarah Silverton

Cognitive neuro-scientific study of the effects of the Paws b programme in primary schools, focusing on the impact of mindfulness on the cognitive and neural systems of attention control and emotion regulation from the neuro-developmental perspective. The project combines electrophysiological (event-related brain potentials) and self-report measures. For more information, please see <http://mindfulbrain.bangor.ac.uk>

“Implementing Paws b in Southampton Schools”

Yasmin Zaman, Paws b teacher
Chris Dunn, Lara Webber
Southampton Solent University, funded by Headstart p/o Big Lottery Fund.

Small controlled trial of Paws b in 6 primary schools, funded by Headstart. Yasmin is currently teaching MBSR to teachers, who will then do Paws b training in 2015, and deliver in their schools. Teacher measures for MBSR course are Wellbeing WEMWBS short form, Five-Facet Mindfulness Scale (FFMQ), Perceived Stress Scale (PSS), post-MBSR mindfulness practice compliance – self-constructed items based on Flook *et al.* (2013), and Teachers’ Sense of Teacher efficacy Scale, short form (TSES). Student measures will include Headstart’s Resilience measure, the Stirling wellbeing scale (SCWBS), more tbc. Study complete by 2016.

MA Education

Lindsay Sladen, Paws b teacher
MA at MMU

Short FFMQ, interviews, research diaries.
Year 7's.

Paws b with year 7s.

Measures used in Paws b studies

Acronym	Test	Author	Year
ACL	Attention Checklist	Das & Melnyk	1989
FFMQ-SF	Short form five factor mindfulness questionnaire		
NEPSY-II	Developmental NEuroPSYchological Assessment	Korkman, Kirk & Kemp	2007
PANAS-C	Positive and Negative Affect Scale- children	Laurent et al, 1999	1988
SCWBS	Stirling Wellbeing Scale – children		

.b Foundations

Completed research

UK

“A non-randomised feasibility trial assessing the efficacy of the “.b Foundation Course”: Mindfulness-based intervention for teachers to reduce stress and improve well-being”

Lindi McAlpine. MSc in Mindfulness Based Cognitive Therapies. Exeter University.
.b & .bF teacher.

This was a non-randomised, controlled study of an early version of .b Foundations course. 49 teachers and 40 matched controls, from seven secondary schools in the UK, comprising state-comprehensives, grammar, academy and private schools.

Measures: Perceived Stress PSS, well-being WEMWBS, mindfulness FFMQ, self-kindness and self-judgment subscales from the Neff Self-Compassion Scale (SCS) at baseline and post-course.

Early version of .bF. Results show highly significant differences, with increases in well-being, mindfulness and self-kindness, and decreases in levels of stress and self-judgment with large effect size for all outcome measures in the mindfulness-based intervention group; 98% reported enjoying the programme ‘a lot’ or ‘quite a lot’. The participating teachers were self-selecting, and were significantly more stressed at baseline than teachers who volunteered for the control group.

Beshai, S., McAlpine, L., Weare, K., and Kuyken, W. (accepted for publication) “A non-randomised feasibility trial assessing the efficacy of the “.b Foundation Course”: Mindfulness-based intervention for teachers to reduce stress and improve well-being”. Accepted for publication for *Mindfulness*, May 2015.

Current studies

UK

“Psychophysiological investigation of mindfulness training in secondary schools: Modifications in emotion regulation and cognitive control in adolescents practicing mindfulness”

Kevanne Sanger, Bangor University PhD 2012-15
Supervised by Dr Dusana Dorjee
.bF teacher Sarah Silverton

Mixed methods, neuro-cognitive mechanisms and qualitative measures. Participants are teachers and 6th form pupils (16-17 year olds) at 2 schools in North Wales, with 2 matched control schools.

This research is using an early version of .bF. The aim of this project is to investigate the impact of the .bF mindfulness programme for secondary schools both from a neuroscientific research perspective

Completed and current research into MiSP programmes: .b, Paws.b and .b Foundations, 1/8/15

(examining neurocognitive mechanisms) and from an applied outcomes-focused perspective. The programme is delivered by school teachers trained in mindfulness and delivery of the .bF course by Sarah Silverton. The research will systematically examine effects of mindfulness training on psychophysiological markers of emotion regulation and cognitive control, and investigate the relationship between these psychophysiological markers and changes in self-reported wellbeing. For more information, please see <http://mindfulbrain.bangor.ac.uk>

A free-access copy of an early paper from this study is available to download here: <http://link.springer.com/article/10.3758%2Fs13415-015-0354-7>

“A Pilot Study to Explore the Effect of the '.b Foundations' Mindfulness Programme on the Wellbeing and Performance of PGCE Students”

Richard Crossman, Masters in Education, Exeter University
.b & .bF teacher

Current version of .bF. Small scale mixed-methods pilot study on effects of the .b Foundations course on 8 PGCE students with 3 controls. Measures include WEMWBS, TSES, FFMQ & SOFI (baseline only), post-course & 2-3 months follow-up. Semi-structured interviews about experience of the course, compliance, affects on PGCE experience, interpretation of mechanisms, implementation of regular practice &/ coping strategies.

Measures used in .b Foundations studies

Acronym	Test	Author	Year
FFMQ	Five-Facet Mindfulness Questionnaire	Baer et al	2006
PANAS	Positive and Negative Affect Scale	Watson et al	1988
PSS	Perceived Stress	Cohen & Williamson	1988
SCS	Self Compassion Scale	Neff	2011
SOFI	Self-Other Four Immeasurables	Kraus & Sears	2008
TSES	Teacher Self Efficacy Scale	Tschannen-Moran & Woolfolk	2001
WEMWBS	Warwick Edinburgh Mental Wellbeing Scale	Tennant et al	2007