

Institution: Bangor University, 10007857		
Unit of Assessment: UoA 4 - Psychology, Psychiatry and Neuroscience		
Title of case study: The Mindfulness-Based Interventions: Teaching Assessment Criteria (MBI:TAC) tool - assuring quality in the implementation of Mindfulness-Based Programmes (MBPs)		
Period when the underpinning research was undertaken: 2012 - 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): 1. Dr Rebecca Crane 2. Dr Dusanna Dorjee 3. Dr Catrin Eames 4. Professor Richard Hastings 5. Professor Jo Rycroft-Malone 6. Professor Ian Russell 7. Mrs Heledd Griffiths	Role(s) (e.g. job title): 1. Director, Centre for Mindfulness Research and Practice, Reader in Psychology (Teaching and Scholarship) 2. Lecturer and Research Lead 3. Research Officer 4. Professor of Psychology 5. Pro Vice Chancellor Research 6. Professor of Public Health 7. Research Project Support Officer/Associate Lecturer	Period(s) employed by submitting HEI: 1. April 2002 - present 2. February 2009 - February 2018 3. October 2007 - March 2012 4. July 2002 - September 2013 5. June 2006 - April 2019 6. October 2002 - September 2008 7. January 2011 - April 2011 and August 2016 - present
Period when the claimed impact occurred: 2013 - 31 July 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact Mindfulness-Based Programmes (MBPs) can help people manage long-term mental health conditions such as depression and anxiety. Bangor University's Rebecca Crane led the development of the Mindfulness-Based Interventions: Teaching Assessment Criteria (MBI:TAC) tool – the only tool that defines and assesses the elements of MBP teaching competence and fidelity for evidenced based MBPs - Mindfulness Based Cognitive Therapy (MBCT) and Mindfulness-Based Stress Reduction (MBSR). Teacher training which includes the MBI:TAC assessment leads to better outcomes (increased well-being and reductions in perceived stress) for MBP participants in mainstream settings. The freely available MBI:TAC tool is now used in 82% of MBP teacher-training organisations globally, with approximately 14,000 mindfulness teachers trained using the MBI:TAC between 2013 and 2020.		
2. Underpinning research Mental health problems account for approximately 23% of the total burden of disease in the UK, with depression and anxiety major sources of morbidity [3.a]. Making Mindfulness-Based Programmes (MBPs) more accessible, can make a key contribution to alleviating this substantial health burden [3.b]. Within the field of psychological therapies, there is a risk in the transition from research to practice of an 'implementation cliff' (i.e. the benefits of research are not practically accessible to the general public due to a lack of systems to support therapy delivery and/or the quality of the delivery is not comparable to the research context). Without embedding international systems to align MBP teaching practice towards agreed norms there is a tendency towards variable quality and reduced benefit to participants. The Mindfulness-Based Interventions:		

Teaching Assessment Criteria (MBI:TAC) addresses these risks by promoting high-quality, standardised delivery of teacher training for MBPs.

Developing the tool

In 2004 Crane developed an early version of the MBI:TAC tool, to enable assessment of students' teaching practice in the Bangor Master in Mindfulness programme. From 2006, Bangor led development and research of the tool in collaboration with the University of Exeter and the University of Oxford. The tool defines how MBP teaching integrity can be reliably recognised, supported and assessed in training, routine practice and research contexts.

The theoretical conceptual research that Crane led at Bangor which integrates understanding of theory on intervention integrity, with a mapping of the elements of MBP teaching [3.1]. This MBP teaching practice framework is central to the impact contribution of the tool. The tool descriptors were developed through iterative grounded-theory generation of MBP teaching practice via observation of video clips of teaching. From 2007 to 2008, the MBI:TAC was refined through a series of developmental stages in which **face and content validity** of the tool were systematically tested by an expert panel. The resulting tool contains six domains describing the elements of MBP teaching, enabling differentiation across six levels from 'incompetent' to 'advanced'.

Researching the tool

Research led by Crane and Dr Catrin Eames (with expertise in psychoeducational interventions provided by Professor Richard Hastings), on the **psychometric properties** of the tool demonstrated strong inter-rater reliability (intra-class correlation coefficient: $r = 0.81$), internal consistency, construct validity, and concurrent validity [3.2, 3.c]. This process demonstrated that it is possible to define the observable aspects of MBP teaching competence, and to organise these into a **reliable and valid tool**. The tool assesses both programme adherence and teaching competence and has led to **international agreement on the distinct and essential features of MBP teaching skill** [3.3].

Assessment of teaching practice using the MBI:TAC is central to the final year of training in multiple MBP teacher-training programmes internationally enabling graduation with a certificate of competence. Bangor-led research (with expertise in neurocognition provided by Dr Dusanna Dorjee) shows that participants in the classes of these MBI:TAC assessed teachers have significantly better outcomes (**gains in well-being and reductions in perceived stress**) and higher satisfaction scores [3.4].

Substantial multicentre research led by Professor Jo Rycroft-Malone while at Bangor University [3.d] investigated MBP implementation across the UK and identified the range of factors influencing successful uptake of MBPs into NHS care pathways. This confirmed that when methods such as the MBI:TAC are embedded into the delivery process, MBP implementation is facilitated and accelerated. Conversely, when less attention is paid to the integrity of the delivery, MBP implementation becomes unsustainable [3.5].

Rigorous evaluation has thus resulted in **the first and only robust, evidence-based tool** for training and assessment for the fields of MBP practice and research [3.6]. The tool leads to better implementation of MBPs in the NHS and other settings, therefore improving participant outcomes and experience [3.e].

3. References to the research

Research Outputs

3.1 Crane, R. S., Kuyken, W. J., Williams, J. M. G., Hastings, R. P., Cooper, L., and Fennell, M. J. V. (2012) Competence in Teaching Mindfulness-Based Courses: Concepts, Development and Assessment, *Mindfulness*, 3(1), 76-84. [DOI](#) (Peer-reviewed journal article).

- 3.2 **Crane, R. S., Eames, C.,** Kuyken, W., **Hastings, R. P.,** Williams, J. M. G., Bartley, P., Evans, A., Silverton, S., Soulsby, J. G. and Surawy, C. (2013) Development and validation of the Mindfulness-Based Interventions – Teaching Assessment Criteria (MBI:TAC). *Assessment*, **20**(6), 681–688. [DOI](#) (underpinned by a BA Grant SG090296, Peer-reviewed journal article).
- 3.3 **Crane, R. S.,** Brewer, J., Feldman, C., Kabat-Zinn, J., Santorelli, S., Williams, J. M. G. and Kuyken, W. (2017) What defines mindfulness-based programs? The warp and the weft. *Psychological Medicine*, **47**(6),990–999. [DOI](#) (Peer-reviewed journal article).
- 3.4 Ruijgrok-Lupton, P. E., **Crane, R. S.,** and **Dorjee, D.** (2018) Impact of Mindfulness-Based Teacher Training on MBSR Participant Wellbeing Outcomes and Course Satisfaction. *Mindfulness*, **9**(1), 117–128. [DOI](#) (Peer-reviewed journal article).
- 3.5 **Rycroft-Malone, J.,** Gradinger, F., **Griffiths, H. O.,** Anderson, R., **Crane, R. S.,** Gibson, A., Mercer, S. W. and Kuyken, W. (2019) ‘Mind the gaps’: the accessibility and implementation of an effective depression relapse prevention programme in UK NHS services: learning from mindfulness-based cognitive therapy through a mixed-methods study. *BMJ Open*, **9**(9), e026244. [DOI](#) (Peer-reviewed journal article).
- 3.6 **Crane, R.S.** and Hecht, F.M. (2018) Intervention integrity in mindfulness-based research. *Mindfulness*, **9**(5), 1370–1380, [DOI](#) (Peer-reviewed journal article).

Grants

- 3.a. **Co-I Russell, I.** (2008 - 2012) *Reducing cognitive vulnerability to suicidal ideation in recurrent major depression: using translational research to elucidate risk mechanisms and their modification.* Wellcome Trust, GBP1,145,531 (Bangor University: R26120) (led by University of Oxford: full award GBP3,380,000).
- 3.b. **Crane, R.** (2010 - 2012) *Staying well after depression: a randomised trial - additional funding on R26120.* Welsh Government, Health and Care Research Wales, GBP4,800 (Bangor University: R26277).
- 3.c **Eames, C.** (2010 - 2012) *Evaluating the psychometric properties of the Mindfulness-Based Interventions - Teacher Rating Scale (MBI-TRS).* British Academy, SG090296, GBP7,496 (Bangor University: R25191).
- 3.d **Rycroft-Malone, J.** (2013 - 2016) *Mindfulness-Based Cognitive Therapy.* National Institute for Health Research (NIHR), 12/64/187, GBP408,395 (Bangor University: R45G10)
- 3.e **Crane, R.** (2019 - 2020) *Accessibility and implementation of Mindfulness Based Interventions (MBIs) in Swedish health care services.* Forte Ekhagastiftelsen, Dnr 2018-22, Grant KI Dnr 4-3199/2018, project K951224753, Total award: GBP83,241, Bangor award: GBP19,940 (Bangor University: R25U04).

4. Details of the impact

Bangor University is internationally renowned for its mainstream influence on the quality of delivery of Mindfulness-Based Programmes (MBPs) and has been at the forefront of leading the translation of research into practice. The Mindfulness-Based Interventions: Teaching Assessment Criteria (MBI:TAC), developed at Bangor, is recognised for its **critical role in benchmarking and assessing the quality of mindfulness teaching [5.1]**. Bangor University has been advising Welsh Government on their growing commitment to improve access to mindfulness as outlined in the *Well-being of Future Generations Act (2015)* and more recently by including mindfulness in the *Curriculum for Wales (2022)*. The First Minister for Wales reported: “*The Welsh Government has given sustained support to improving access to psychological therapies in Wales including [Mindfulness Based Cognitive Therapy] MBCT, through enabling therapist training. I have appreciated the contribution that the mindfulness expertise in Bangor University has made to these developments over many years. In particular, Bangor’s work on defining and assessing mindfulness-based teaching skills through the research and dissemination of the Mindfulness Based Interventions: Teaching Assessment Criteria has enabled the roll out of mindfulness-based programmes into the mainstream to be robust and evidenced based*” [5.2].

The MBI:TAC has been **freely available** since August 2013, and has guided the training delivered by the majority of **national and international MBP teacher-training organisations** and pathways (the MBI:TAC is now used by 82% of teacher-training organisations, equating to

approximately 2,000 trainees per year since 2013, with approximately 14,000 mindfulness teachers trained using the MBI:TAC between 2013 and 2020). It is also regularly used to ensure intervention integrity in research trials (e.g. the randomised trial evaluating mindfulness in schools conducted by the University of Oxford [5.3]).

The pathway to impact is two-fold: first, through **training the trainers of MBP teachers** to use the tool formatively and for assessment, thus strengthening the rigour of the training they offer; and second, through **training MBP teachers** to use the tool to support skill development and reflective practice thus strengthening and accelerating skill development. The ultimate beneficiaries are MBP course participants who receive high fidelity teaching from more skilled teachers, thus enabling outcomes in line with those achieved within research contexts. Following training, it is estimated that an MBP teacher teaches over 1,500 participants in their career, so **optimising practice at a formative stage** is important.

Evidence of National and International take-up of the tool

In England, provision of Mindfulness-Based Cognitive Therapy (MBCT) in the NHS is mandated by the National Institute for Health and Care Excellence (NICE), having been recommended across the UK for depression prevention (since 2004). Since 2017, the **Health Education England funded MBCT teacher training pathway** has used the MBI:TAC as a formative and summative assessment tool [5.4]. 72 trainees from 20 service settings delivering to approximately 445 patients within the Improving Access to Psychotherapy service have completed the training during this impact period.

All 23 member training organisations within the British Association for Mindfulness-Based Approaches, providing standards and governance for the UK MBP field, use the MBI:TAC in their training [5.5, 5.6].

Since 2018, the MBI:TAC has been embedded into the internationally agreed MBCT teacher-training pathway and listing led by the MBCT developers. 226 MBCT therapists across 22 countries are listed as having completed the pathway [5.7]. Internationally, the MBI:TAC is now used as a formative and/or summative tool in **over 80% of the 55 main training organisations in Europe, Australasia and USA** (reaching approximately 14,000 trainees between 2013 and 2020) [5.5, 5.8]. Since 2013, the MBI:TAC has been **translated into Chinese, Dutch, French, German, Hebrew, Italian, Japanese and Spanish** and implemented in training programmes in 14 countries. Crane has led 25 'train the trainer' workshops for over 380 trainers in the UK, Italy, Spain, Germany, USA, France, Holland, Belgium, Norway, Israel and Ireland. These courses have included trainers from Japan, Hong Kong, Australia, Sweden, Denmark, Israel, Taiwan and Canada.

Evidence of International benchmarking of teaching standards

The MBI:TAC has been established **as an agreed graduation standard** from all 4 mindfulness master's training programmes in the UK and Ireland. Between August 2013 and July 2020, 350 students have graduated with a certificate of teaching competence assessed via the MBI:TAC from these programmes [5.9].

The 3 leading international university mindfulness training centres in the USA (Massachusetts, Brown, and California San Diego) use the tool routinely in training, supervision and assessment with over 615 individuals trained through these centres since 2013 [5.8, 5.10]. The Assistant Director at Brown Mindfulness Centre reported that *'the use of the MBI:TAC has given them [trainee MBP teachers] a reliable and efficient tool to refine and deepen their knowledge and skills, thereby increasing teaching confidence and ensuring fidelity to the program'* [5.10].

Continuing Professional Development

Although initially developed as a master's students' teaching practice assessment tool, the **MBI:TAC's roll-out into practice** has been accelerated by its value as a formative tool to enable

trainee-teacher/trainer reflective development and clarity of understanding of skill development [5.6]. A Bangor-led survey of 79 senior international MBP trainers reported that the majority (over 90%) of trainers use the MBI:TAC in a range of ways, including: i) providing structured feedback; ii) peer observation/feedback; iii) aiding student reflective development and understanding and iv) reflecting/improving their own practice. This survey showed that 86% of these trainers use the MBI:TAC as an official assessment tool. The MBI:TAC has also been adapted by programme leads for a range of MBPs through the development of addendums (e.g. Mindful Self Compassion, Breathworks, Mindfulness-Based Living Course). An online addendum has been created for other teaching contexts and populations (e.g. schools, workplaces and online delivery).

5. Sources to corroborate the impact

5.1 Mindfulness Nation UK report (2015) All Party Parliamentary Group on Mindfulness corroborates that the MBITAC is part of the process of national roll out of MBPs into mainstream settings (the MBI:TAC is referenced on p34).

<https://www.themindfulnessinitiative.org/Handlers/Download.ashx?IDMF=1af56392-4cf1-4550-bdd1-72e809fa627a>

5.2 Testimonial from the First Minister for Wales (participant and reporter in the impact process) documenting the ongoing engagement with Bangor and mindfulness access in Wales and the importance of the MBI:TAC tool in ensuring quality in the training.

5.3 Research study (2017) evidencing the use of the MBITAC in research studies to verify the quality of the teaching (Kuyken, W. *et al.* (2017) The effectiveness and cost-effectiveness of a mindfulness training programme in schools compared with normal school provision (MYRIAD): a study protocol for a randomised controlled trial, *Trials*, **18**, 194)

<https://trialsjournal.biomedcentral.com/articles/10.1186/s13063-017-1917-4>

5.4 Health Education England (2017) Improving Access to Psychological Therapies: Mindfulness-based Cognitive Therapy National MBCT Training Curriculum evidences the use of the MBITAC in the NHS training pathway both as a formative and an assessment tool.

<https://www.hee.nhs.uk/sites/default/files/documents/MBCT%20in%20APT%20curriculum.pdf>

5.5 Research study (2015) evidences the use of the MBITAC in training pathways within the NHS (Marx, R., Strauss, C. and Williamson, C. (2015) Mindfulness apprenticeship: a new model of NHS-based MBCT teacher-training. *Mindfulness*, **6**(2), 253-263.

<https://link.springer.com/article/10.1007/s12671-013-0254-2>

5.6 Testimonial from the Director of the University of Oxford Mindfulness Centre (OMC) (participant in the impact process) corroborating that the MBITAC is part of OMCs training and research programme.

5.7 MBCT International Training Pathway website verifies that the MBI:TAC has been embedded into the internationally agreed MBCT teacher-training pathway (The Mindfulness-based Cognitive Therapy Training Pathway document is a collaborative document produced by 8 expert mindfulness trainers, all external to Bangor University apart from Dr Rebecca Crane).

<http://www.mbct.com/mbct-training-pathway.html>

5.8 Mindfulness-Based Stress Reduction (MBSR) teacher certification process illustrates use of the MBITAC tool in international training centres both as an assessment and formative tool:

Brown University, Rhode Island: <http://mindfullytoday.org/teacher-certification/>

University of California San Diego: <https://mbpti.org/programs/mbsr/mbsr-teacher-certification/>.

5.9 Testimonial from the Director of the University College Dublin Mindfulness Master's programme (participant in the impact process) corroborating that the MBITAC tool is integral to the Dublin master's programme.

5.10 Testimonial from Assistant Director of MBSR Teacher Training and Curricula Development at the Mindfulness Center at Brown University (participant in the impact process) corroborating that the MBITAC is integral to the MBP training programme at Brown University.