FirstPartner

UCL Behaviour Change Techniques Taxonomy Business Case Report

10th November 2019

Contents

1 Executive Summary

The UCL Centre for Behaviour Change (CBC) is seeking funding to establish a not for profit Social Enterprise to facilitate wider access to, and usage of, the highly respected Behaviour Change Technique (BCT) Taxonomy and supporting tools.

The CBC has successfully developed the Taxonomy and some key supporting tools, notably COM-B and the Behaviour Change Wheel, as a rigorous, evidence based and consistent approach to defining, coding and developing behaviour change interventions. It has also provided a degree of support and training to users of the Taxonomy and has created various resources for users.

The focus of the CBC is, however, on developing the science and the research and working with and supporting advanced practitioners. It does not have the resource or capability to support the much wider, global community of researchers, policy makers and practitioners that could potentially benefit from adoption of the Taxonomy in the development and assessment successful behaviour change interventions. The proposed Social Enterprise will aim to fill this gap, meeting the needs of this broader community, based on a self-financing commercial model.

This report summarises the findings of informal qualitative research undertaken amongst current users of the taxonomy. This research explored the demand and needs for the services that could be offered by the Social Enterprise. The report also summarises the recommendations on the role and proposition of the Social Enterprise that have been drawn from the research and it outlines the proposed business model and business case.

The key findings from the qualitative research we are follows:

The BCT Taxonomy and its associated tools offer a number of unique and proven benefits over other behaviour change approaches for the assessment and design of interventions. These benefits include:

- A framework that is easily understood and can be adopted by policy makers and practitioners who are not behavioural scientists
- A strong basis for providing training to non-behavioural scientists
- The establishment of a common language for defining interventions which significantly improves the ability to interpret research, and deliver interventions that are grounded in previous research evidence and can be applied repeatedly and consistently
- A structured intervention design process that can be applied by practitioners who are not behaviour change experts
- Offering users a broad view of the possible intervention options open to them
- Bringing users the confidence of a rigorous evidence-based approach
- The Taxonomy is widely supported and adopted by academic researchers and public health bodies – although these are currently predominantly in the UK.

On the flip-side, the Taxonomy is perceived as being presented in a way that is too complex and academically grounded for many policy makers and practitioners to adopt easily and the supporting tools and resources and training do not always cater well to those to seeking to apply it in practical public health or other scenarios. It is also clear that whilst the Taxonomy is strongly supported and relied upon by those who are aware of it and have adopted it, this adoption is restricted to "pockets" of users with links to the UCL CBC. There is a clear opportunity to significantly increase awareness and adoption.

Key specific needs for improvement include:

- Developments to the core taxonomy, notably filling gaps in terms of behaviours and approaches that are not yet covered and linking/integrating the Taxonomy with other behavior change models
- Developing a broader training offering, specifically in terms of short introductory, online and "train the trainer" courses
- Providing simplified, better packaged and better presented tools and resources that use simpler language, are better linked and are easier and more attractive to use from a user experience and graphic design perspective
- Providing more effective digital tools, particularly in terms of the ability recommended and reference appropriate BCTs when designing interventions
- Providing more practical examples of interventions that cover a wider range of use cases and intervention delivery methods
- Developing methodologies for better measuring the effectiveness of interventions and the approaches that should be taken when interventions are not effective
- Community based support
- An accreditation scheme that will help ensure the integrity of the Taxonomy and provide some assurance to those purchasing intervention services from providers claiming to use it.

In response to these needs it is recommended that the role of the proposed Social Enterprise is:

To facilitate wider access to the BCT Taxonomy and help a worldwide community of users effectively apply it in support of delivering improved public health, environmental, societal and organisational outcomes through development and delivery of a range of tools, resources and services that address the needs identified above.

The Social Enterprise will generate revues primarily through the sale of training and the licensing fees for access to a set of tools and resources optimised to help key target groups design and deliver interventions. The business case model forecasts that it the Social Enterprise requires funding of around £555k to cover initial development of these resources. It should be possible to generate sufficient revenue to cover its ongoing operating costs within 6 to 12 months of starting to sell services.

2 Introduction

2.1 Purpose and scope of document

This report provides a basis of evidence for the proposed funding submission by the UCL Behaviour Change Unit (BCU) for funding to establish a self-financing, Social Enterprise that will support the wider adoption and usage of the Behaviour Change Techniques (BCT) Taxonomy and supporting tools and will generate revenues that can be channeled back into further research.

The report:

1) Summarises of the findings of informal qualitative and desk research to provide evidence of demand for application of the BCT Taxonomy and needs of users for tools, resources, training and support
2) Identifies key themes emerging from that research and describes how these inform the recommended role of the proposed social enterprise
3) Summarises the recommended role, scope and proposition of the proposed social enterprise
4) Outlines the proposed business case for the Social Enterprise
5) Defines the funding requirement in order to establish the Social Enterprise

2.2 Project scope

The report is based upon a market analysis project undertaken on behalf of the UCL BCU by FirstPartner Ltd.

The purpose of the project has been to undertake a market analysis to identify the potential revenue and commercial updates of a tool based taxonomy. The specific objectives of the work were to:

- Identify potential learning user cases and target segments for the tool and associated consultancy needs
- Define a proposed proposition (the product and associated services)
- Calculate the potential addressable market size for tool
- Development of a simple business model/business case identifying potential pricing models, and estimated revenues and costs

The business case will be used to support the bid for a Wellcome Trust Biomedical Resource and Technology Development Grant to be submitted by the UCL Centre for Behaviour Change in January 2020.

The market analysis conducted by FirstPartner has included:

- Gathering information from the UCL Centre for Behaviour Change training team to understand potential users' needs, innovative features of an online version;
- Identifying customer segments and buying patterns, and how the tool can extend beyond the academic community to include government agencies, individuals, corporates, and/or small businesses;
- Calculating the potential target market size in volume and value on the UK, Europe and global scale;
- Cost and pricing analysis which reflect the product delivery and market requirements; create an understanding of the costs of the potential product and services offering,

establish start-up and fixed costs to support the product and/or service and to create a template that will allow variable costs to be understood in the future.

2.3   Research methodology

The methodology used for gathering the evidence reflected in this report has been:

1) An informal qualitative research study undertaken through nineteen telephone interviews carried out with twenty-one interviewees between late July and early September 2019. The interviewees were users of the BCT taxonomy representing a range of contexts and use cases in health/public health applications. A list of interviewees is included in Annex 1.
2) Desk research undertaken to identify available quantitative demand metrics and commercial benchmarks for the business case.

The informal qualitative research was structured based on a research briefing and a discussion guide. This defined a set of topic areas for discussion; however, each individual interview was tailored, and questions were adapted and focussed depending upon the role and interests of the interviewee and responses given. Interviews were typically 40 to 60 minutes in length.

Interview notes were analysed in a structured way to identify key themes. These are summarised in this report. Please note that the evidence from the interviews quoted in this report reflects the opinion of interviewees, based upon their knowledge and experience of applying the Taxonomy. It may not necessarily reflect the actual status of the Taxonomy and supporting resources and may not take account of all of the work that has been undertaken by the UCL BCU.

It is believed that the BCT Taxonomy will have potential application across a wide range of sectors and use cases, however the primary focus of the research has been restricted to applications in health.

3 The case for the BCT Taxonomy

"We would be lost without (the BCTs). – we need it." - PHE

The BCT Taxonomy and associated tools provide a proven, evidence-based methodology for designing and evaluating behavior change based interventions. The case for behaviour change based interventions in health is well established.

The specific benefits of the BCT Taxonomy based approach identified through our qualitative research are summarised below. Taken together these benefits mean that application of the BCT Taxonomy significantly increase the adoption, effectiveness of behavior change based health interventions with significant positive social and economic impacts.

3.1 Use Cases for the application of the BCT Taxonomy & Tools

Interviewees use the BCT Taxonomy and associated tools to achieve a range of outcomes in a number of different contexts. The main ones are summarised in table 1 below:

Table 1 Summary Use Cases

Function	Context/Use case	Organisations
Behaviour change research	• Identifying & coding & categorizing successfully/unsuccessfully applied BCTs through systematic review of research literature in an academic research context	• PHE • University of Galway
	• Identifying & coding successfully applied BCTs based on research literature as part of the intervention design process	• University of Bedford
	• Identifying & coding successfully applied BCTs to determine the effectiveness of interventions and population level campaigns	• PHE
	• Commercial health market research to identify barriers and solutions to adoption/usage of pharmaceuticals & devices by health professionals and patients	• HRW Healthcare
	• Scientifically based research as basis for start-up social enterprises and app development	• ZINC • Rosie Webster
Public health policy development	• Use for development of public health guidelines	• NICE • PHE
	• Use for development of policies for health commissioning bodies	• NICE

Function	Context/Use case	Organisations
	• National government policy development	• PHE
	• Building local authority delivery capability and making the case for investment	• PHE
Individual and group level intervention design	• Multiple use cases	• University of Galway
	• UK local authority led intervention design	• University of Bedford
	• Needs assessment, tender writing and development and implementation of intervention programmes by delivery agencies	• Everyone Health
Population level intervention/communications campaign design	• Detailed campaign strategy & design, selection of techniques to be used, messages & media	• Safefood Ireland • Pegasus
Digital health intervention/product design	• Tagging/coding digital health app functions, user responses and stored data for data/AI driven digital health products	• J&J • Goodlife Fitness
	• Providing structure and process for digital intervention/app design	• Rosie Webster • Carmen Lefevre
Practitioner behavior change intervention design	• Identifying appropriate BCTs to influence health practitioner behavior for example in antibiotic prescribing and infection control	• NICE • University of Manchester
Education and Training	• Training of health professionals	• University of Manchester
	• Training of communications and PR agencies producing campaigns	• Safefood Ireland
	• Training of internal behavior change teams	• J&J
	• Training of clients/commissioners	• HRW Healthcare • Everyone Health
Organisational change	• Design of training and internal communications to facilitate corporate organizational change	• Mind Gym

Function	Context/Use case	Organisations
	• Facilitating health delivery organisational change	• NICE
User experience design	• Understanding user behaviours to improve digital products	• Carmen Lefevre – Facebook

3.2 A common language for describing interventions

Interviewees commonly highlighted that that the Taxonomy has uniquely provided a common language that supports and simplifies research and coding of interventions and allows interventions to be precisely described to ensure repeatability.

"For us what we used to assess and describe what is going on in interventions it is very helpful. It provides a tool for categorisation and common terminology that can be used, and reproducibility" - NICE

At a practical level, a common, consistent language also supports consistency across guidelines produced by policy bodies such as NICE.

"There wasn't consistency in the terminology used across our guidelines. This makes it hard to describe an intervention. There was no agreed definition within NICE or in the broader field" (NICE)

3.3 A methodology that is easy to understand and apply

A number of interviewees referred to the simplicity of COM-B and the Behaviour Change Wheel and the ease with which they can be understood and applied by non Behavioural Scientists. The principles underpinning the BCT Taxonomy are also considered to be relatively simple to understand – although the Taxonomy itself and the process for selecting the most appropriate BCTs is generally considered to be more complex.

"COM-B is very intuitive and helps to get buy in…it is a useful tool for distilling people's basic understanding of behavior change" – Uni Beds.

"People do understand it well, people do use different words and the taxonomy is very good at adding some of those words in."

"The simplicity – it is easy to understand and classify observations into different categories and use the tools in the Behaviour Change Wheel book and apply them in different research situations." - HRW Healthcare

"This is very straight forward for practitioners to understand – it allows them to have confidence in what they are doing and is more holistic – this is the big difference." - Everyone Health

"We Talk about and put the Behaviour Change Wheel and Particularly COM-B at the heart of what we do. That makes intuitive sense in the way that we talk to people. What are the active ingredients that help you understand an intervention? - and people really get that."
University of Manchester

3.4   A Structured evidence-based methodology for designing interventions

Interviewees highlighted a number of benefits that assist in the design of interventions. These include:

3.4.1   A structured design process for face to face, population level and digital interventions

The structured step by step approach that comes with applying COM-B, the Behaviour Change Wheel and the Taxonomy & TDF provides clarity of thought. This takes users logically through the stages of setting goals, selecting techniques, and in the case of population level interventions, designing messages and campaigns. While some interviewees report some complexity – particularly in terms of moving from Com-B and the Behaviour Change Wheel to identification of the appropriate BCTs from the Taxonomy, the process imposes rigour and works well.

"Having the wheel and alignment of different COM-B categories with solutions frameworks and then the taxonomy of BCTs that have been used in those contexts. It's a long process but becomes formulaic. You can look at grids and say this is the barrier in this category, this is the solution, these are the behaviour change techniques. – it makes it very easy for us to do and very actionable for clients and often solutions we recommend are things that haven't thought about before - it is a wonderful process to work through and very beneficial for us."
- HRW Healthcare

Digital interventions are increasingly important, and the Taxonomy and associated tools provide a structured methodology for:

- • Design of the intervention and selection of the BCTs to be delivered/supported via a digital service or App
- • User experience design
- • Tagging service features to record how users respond
- • Tagging and analyzing data and providing a basis for AI algorithms to interact with service/app users

"We have three products tagged in this manner that are getting data back in and is super helpful. Seeing people using tools in different ways is a great insight generator." - J&J

Johnson & Johnson use the taxonomy as a basis to track end user interaction with the app or digital service and identify whether interactions precede subsequent behaviours. This is used to build heatmaps on BCT usage. A team of data scientists analyse the data to identify predictors of what a behaviour might be. This is also used to inform product development.

3.4.2   A broad view of possible options

The Taxonomy is found to be very beneficial in highlighting to users the various interventions that could be used and providing a much broader view of possible options – for both practitioners and

policy makers. Interviewees described how the process of applying COM-B, the Behaviour Change Wheel and the BCT Taxonomy generates a checklist of options for BCTs that could be applied, and that this will often suggest options that would not otherwise have been apparent

"It helps to lay out the options of what change techniques you could use, a good checklist on what you could be using. It gives policy makers a much wide perspective on what they could be doing." – PHE

3.4.3   The confidence of a rigorous evidence-based approach

The fact that taxonomy is evidence based, and the BCTs that are suggested when the process is followed are supported by scientific research evidence, gives confidence that an intervention is more likely to be successful than one based on techniques that are designed or selected more intuitively.

"As an organisation spending tax-payers money, it brings the security of applying best practice and a defensible way of working - based on all the research. We are practitioners….it is a ready-made tool that we can use with some security we are doing the right thing." (safefood Ireland)

"We know that solutions need to become personalised and the only way can do that is to get individual specific insight and understand how the intervention components are working for (patients) at an individual level. We want to build on what is working. …. We are working to getting this as a standard. This is a big challenge the industry has a lot of people who just (make it up) rather than checking what works already. This is a good evidence based starting point" - J&J

"It is evidence based – and based on robust academic research – it gives confidence that we are using available evidence" – HRW Healthcare

3.5   Although there may not yet be evidence that BCT based interventions are more effective

However, at this stage, there may not be research evidence to prove that application of the Taxonomy during intervention design delivers a more effective intervention.

"There is no quantitative evidence that using the BCT taxonomy provides improvements… but I don't know how we would get that evidence to say using BCTs is better than not." – PHE

This is also an issue for assessing the relative effectiveness of public health campaigns internationally, where cultural and other differences come into play. Gathering sufficient quantitative data on effectiveness is a challenge, particularly when the campaigns are being applied across small patient bases.

"There are differences, but evidence is only qualitative. As it takes so long for patients to sign up it is difficult to get the quantitative data to compare…. We don't use the BCTs to measure as we have not seen any measurement tools that would measure the effectiveness

of the BCTs. That has not been part of the Summer School - or if it is it hasn't landed. That is a frustration." - Pegasus

3.6 Training benefits

Some respondents reported that the taxonomy and associated tools provide a good clear basis for training non behavioural scientists and giving them confidence to apply behavioural science based approaches in a structured, consistent way that is backed by rigorous research evidence.

"We have successfully used the wheel for training and upskilling teams and training other organisations such as Citizens Advice". – University of Bedfordshire

3.7 Strong support amongst behavioural scientists and public health bodies

The BCT Taxonomy and associated tools are widely referenced in academic papers and have been adopted as a tool for behavioural change research and policy setting by leading public health bodies in the UK and North America, notably Public Health England (PHE) National Institute for Health & Care Excellence (NICE), NIST and the Campbell Collaboration. A number of UK local authorities have also adopted the Taxonomy and are investing in building behaviour change teams and training those teams on the use of the Taxonomy.

The increasing adoption by researchers adds to the strength of the approach by ensuring that research literature uses a consistent language for describing interventions thereby building the evidence base and supporting the consistent repeat application of successful interventions.

The adoption by public health bodies demonstrates the value the Taxonomy and associated tools bring to public health policy development, guidelines and population level interventions. However, awareness and adoption are currently confined to "pockets" of adopters and work is needed to broaden awareness and widen adoption in order to maximise the benefits it can bring to health policy setting and interventions worldwide.

"Members of our group often contacted by others looking for tools – there a real recognition of what behaviour change can contribute. At the moment there is an interest (In the Taxonomy) but is pockets that are using it……extending the reach outside these pockets would be really good.

Awareness raising and support to broaden potential adoption is one of the recommended roles of the proposed social enterprise.

4 Evidence of demand for behaviour change initiatives, the BCT Taxonomy and tools and associated tools.

4.1 The factors driving demand, and the importance of awareness

The research gathered qualitative evidence of interviewee perceptions of demand and adoption at two levels:

1. Overall demand for behaviour change based initiatives, interventions and tools
2. Demand for the BCT Taxonomy and associated tools

The scope of the interviews covered the following sectors or segments:

1. The UK public health sector
2. The international public health sector
3. Universities (with a focus on health and social care and social justice related research and training)
4. Private health care and pharmaceuticals companies
5. Digital health and fitness
6. Demand amongst behaviour change facilitators (Health communications agencies, consultancies and delivery agencies)
7. Demand in digital user experience design outside of health

This informal qualitative research indicates that the following factors have an impact on, and are closely linked to perceptions of demand for behaviour change based approaches:

- Awareness and understanding of behaviour change based approaches and techniques in general, most notably behavioural economics. This includes awareness amongst decision takers and budget holders as well as policy makers and practitioners
- Adoption of behaviour change based approaches and techniques
- Availability of funding
- Perceived benefits and evidence of return on investment

Perceptions of demand specifically focus on awareness of the Taxonomy. In general, the perception is that awareness (and adoption) is currently "patchy" and is higher amongst behaviour change scientists, academics and professionals and those that have been introduced to the taxonomy through contacts and/or have direct links with the UCL CBC. Some interviewees implied that awareness of the BCT Taxonomy is lower than awareness of behavioural economics especially amongst non-specialists.

4.2 Sector/segment specific demand

4.2.1 Demand in the UK&I Public Health Sector

The current core segment in terms of awareness and adoption is the public health sector in the UK and Ireland. Awareness of the importance of behaviour change is high with a number of specific Government and local authority supported initiatives in place. Some key ones are summarised in this section.

"From Government to local authorities to health care professionals, everyone recognises the link between chronic disease and risk factors and it is important to support people to change behaviour – from a societal, personal level and an economic perspective. There is a big demand for interventions that work – but in a hospital setting there may not be the capacity and funding to deliver." - NICE

4.2.1.1   UK Government behavioural insights procurement framework

In 2018 the UK Government Crown Commercial Service put in place a three-year procurement framework[1] for purchase of a range of applied behavioural insights services by UK public bodies. The framework runs from February 2018 to February 2021, provides for procurement from six suppliers[2] and has an estimated total value of £16 million.

4.2.1.2   Public Health England

Public Health England has a behavioural insights team and has adopted the BCT Taxonomy for:

- Coding national and research interventions
- Assessing the effectiveness of PHE initiatives and interventions in terms of tackling the drivers of behaviour and identifying gaps and opportunities
- The design and delivery of interventions across a number of interventions and campaigns across a number of topics including antibiotic prescribing and screening programmes.

In September 2018 PHE published a strategy paper[3] which references the BCT Taxonomy, Behaviour Change Wheel and COM-B amongst the key concepts, frameworks and tools it describes.

4.2.1.3   NICE

NICE has also adopted the Taxonomy for development of its PH49 guideline, "Behaviour change: individual approaches"[4], published January 2014.

4.2.1.4   UK local authorities

The four hundred and eight local authorities across the UK play a key role working with health providers to deliver interventions. The perception amongst interviewees is that awareness of and demand for behaviour change based approaches is high amongst Local Authorities.

The BCT Taxonomy and associated tools have been adopted and some local authorities are establishing behaviour change teams and are training staff in behavior change techniques. Examples cited by interviewees include Croydon and the regional behavioural science hubs being established through the Behavioural Science and Public Health Network which has been part funded by PHE.

---

[1] See: https://www.crowncommercial.gov.uk/agreements/RM6004

[2] The suppliers on the framework are: Behavioural Insights Ltd, CFE Research and Consulting Ltd, KANTAR UK Ltd, IPSOS MORI UK Ltd, McKinsey & Company Inc United Kingdom and Sheffield Hallam University.

[3] Improving people's health: Applying behavioural and social sciences to improve population health and wellbeing in England

[4] See: https://www.nice.org.uk/guidance/ph49/chapter/5-Recommendations-for-research

Interviewees were unable to state accurately how many are implementing behaviour change initiatives or have adopted the BCTs however there is clearly scope to significantly increase uptake and deliver the consequential benefits to local authority led public health intervention initiatives.

"Generally, there is a high level of awareness in Local Authorities, with (them) increasingly going out to tender for services - but not necessarily understanding what they need to do to get people trained and get the results they want. - But In a number of areas we are still selling behavioural science" – University of Bedfordshire

"There is a lack of awareness at practitioner level. There should be a huge demand – but the issue is people understanding the need. (Probably) 5-10% of local authorities are aware – there is not a space where people can learn about it." – Everyone health

The identified barriers to demand and adoption amongst UK local authorities include:

- Lack of awareness of the Taxonomy,
- Perceived complexity vs. alternative approaches
- Lack of funding, or lack of willingness to commit funding and resources
- Insufficient quantitative evidence that intervention programmes designed using the Taxonomy and tools deliver tangible better outcomes
- Lack of compelling, quantitative evidence of financial return on investment

"There is high demand (for the BCT Taxonomy)amongst the people who have the time to look into it, but it is competing with Behavioural Insights, Mindspace and EAST, which are simpler and allow you to pull things out the air."…. I think the demand is increasing but for a simpler tool from the local authority side of things – PHE

"Demand from local authorities is very high – the buzz term is now behavioural science. It was behaviour change 5 years ago but is now behavioural science - probably as it allows more behavioural economics people in – and many people in public health sit in behavioural economics." – Behaviour change consultant working with University of Bedfordshire

Wider uptake will be facilitated by:

- Awareness building and education of local authority Directors of Public Health and Finance Directors – probably delivered in conjunction with the Local Government Association
- Building the library of case studies and evidence of the success of the application of BCTs and the return on investment for local authorities.
- Ensuring that tools and training packages are optimised to meet local authority needs

"(There is a need for) engagement with the Local Government Association & building of case studies to aim to get buy in from Directors of Public Health….This would be more effective than guidance coming from PHE which local authority Finance Directors (often) ignore….There is a lot of material on public health interventions and the return – smoking is a good example where there is evidence on return on investment." – University of Bedfordshire

UK local authorities are also interested in applying behaviour change techniques to other areas with examples cited including reducing food waste, increasing uptake amongst potential foster carers, reducing call centre referrals and reducing organizational use of paper, although this demand was not further quantified through this research.

4.2.2 International demand in Public Health

Interviews were undertaken with the US National Institutes of Health (NIH) and the Campbell Collaboration and some commercial providers who operate internationally to get a view on demand and implementation from an international perspective.

"Awareness and appetite for behaviour change work is greatest in UK. It is catching up in US but a bit behind scientifically and in terms of application. The Netherlands is huge, and we have a lot of clients based in Germany and Switzerland where they are a bit less fluent. For the UCL approach we have only seen evidence in the UK and amongst people who are very engaged with Behaviour change academic community" - HRW Healthcare

"We have lot of global clients – more than half – depending on the market will get a varied response in how interested people are in the UCL approach. Europe, Asia and Australasia are very interested. In the US they want US reference points…it is interesting how the reputation of UCL is much stronger on this side of the water– US want their home grown thinking. With many clients we will be the first to tell them- Pegasus

NIH is part of the U.S. Department of Health and Human Services and claims to be the largest biomedical research agency in the world. The NIH does spend heavily on behaviour change based research. About $4bn per year is spent on grants that have a social behavioural science component and probably $2.5bn to $3bn is spent on research that has an applied/intervention perspective to it. This includes all the prevention related efforts for smoking, diet and physical activities plus chronic disease management programmes. It should be noted that very little of this funding is specifically targeted at work on taxonomies or ontologies but the need for consistent taxonomies – and ideally taxonomies that can be used across both behavioural and biomedical science disciplines are clearly recognized by the NIH as a need.

Behavioral change interventions are in high demand in the US, amongst both researchers and practitioners, however amongst clinicians, nurses and public health practitioners there is demand for short, simple approaches. Behavioural economics and nudge have had a positive impact but as far as the BCT taxonomy is concerned, demand is perceived to be low. This may be partly down to perceived complexity, however, under the US system, there may also be insufficient incentives on behavioural science practitioners to adopt evidence-based approaches.

"My personal opinion is there very little incentive (for practitioners) to do empirically based work – I would have got the same reimbursement from the insurance company regardless of whether had done empirically based work (or not)." – NIH

While UCL has been working with NIH, the perception is that wider awareness and usage of the BCT taxonomy is very low.

"Amongst researchers, I think there is sufficient visibility to be aware that the Taxonomy exists and for some they have looked at it, adopted it and used it…." NIH

One of the key challenges highlighted is that in the US, a behavioural intervention researcher will almost always use the CONSORT guidelines for their RCT Model as it is highly visible, and reviewers and journals require it. In contrast the BCT Taxonomy is not really recognized by journal reviewers. Outside of the research community, notably amongst US policy makers, and providers, visibility of the Taxonomy is believed to be nearly non-existent.

While the work of UCL in building international awareness is recognised, there is potentially a case for a global network of organisations advocating the taxonomy supported by some "poster child" projects.

4.2.3   Private Health and Pharmaceuticals

The research has indicated significant demand for behaviour change based initiatives, particularly driven by the pharmaceuticals and devices sectors. This encompasses use of behaviour change techniques to:

- Influence prescribing and usage behavior amongst clinicians
- Influence patient behaviour and optimize the effectiveness of products
- Design and deliver research to identify barriers and issues in support of product development and product marketing
- Design public health and product-based communications campaigns

"Demand for campaigns is high. It is generally accepted amongst most of our client base or potential client base that incorporating behavioural science is important – there are a lot of healthcare agencies talking about it. It is normalized… I don't see it as a trend and don't see it as declining." – Pegasus

4.2.4   Demand Amongst Behaviour Change Facilitators

The demand for behaviour change initiatives amongst public health agencies and pharmaceuticals companies is also driving the demand for tools including the BCT Taxonomy amongst behaviour change facilitators, notably consultancies, research and communications agencies and private intervention providers. In the case of consultancies, this is not restricted to health. Wider commercial organisational change is an example of the other areas where behaviour change is seen as an important facilitator:

"Awareness (of behaviour change" is starting on the way up the hype curve. A lot of clients talking about nudges…(However) people have read a couple of books on habits and on nudges and now it is at the point where it is starting to get slightly misused and we have definitional issues – The BCT taxonomy addresses this – there is a place in the market for this, because of the research heritage and the rigour - it is worth championing" - Mindgym

4.2.5 Digital Health and Fitness

The market for digital health and fitness interventions and apps is significant. According to Grandview Research[5], the global digital health market size was valued at USD 95.8 billion in 2018 and is projected to expand at a CAGR of 27.7% over the forecast period to 2025. Research2 Guidance[6] reported at total of 325,000 health fitness and medical apps on app stores in 2017 with 78,000 being added during the course of the year and $5.4 billion being invested in digital health start-ups.

Behaviour change is an implicit component of many digital health services and apps, both in terms of the outcomes being sought by the user and also the design of the user experience. There is some evidence of the BCT taxonomy being used in the fundamental design of digital interventions, for example by Johnson & Johnson, however concerns were also raised in the interviews that relatively few apps are successful and that usability and user experience is far more important to the success of an app than the scientific or evidence based approach of framework that it is based upon.

> *"Apps are tough. There are plenty of apps but not many have been successful…. The UX needs to be effortless and it is hard to get the UX to Netflix or Amazon level without Netflix and Amazon levels of investment." - Goodlife Fitness*

---

[5] See: https://www.grandviewresearch.com/industry-analysis/digital-health-market
[6] See: http://www.myhealthappsblog.com/mhealth/research2guidance-market-update/

5 The case for encouraging adoption of the Taxonomy

There is strong justification for encouraging the widest possible adoption of the taxonomy and its associated tools. This will maximise the benefits both in terms of optimizing the effectiveness of individual interventions but also in terms of the sharing of knowledge and results regarding the effectiveness of interventions through publication of research and the results of intervention initiatives by academic and commercial researchers and practitioners.

In order for this to happen there needs to be investment in:

- Awareness building amongst researchers, practitioners, policy and decision makers worldwide. This needs to be supported by a strong portfolio of practical examples and case studies that demonstrate the benefits of the approach
- Development of the tools supporting tools and resources to ensure applicability and accessibility to practitioners
- Development of widely accessible training and community support

These activities are key potential roles for the Social Enterprise.

6 User needs and opportunities for the Social Enterprise to develop and deliver services

The informal qualitative research has identified user needs and service offering opportunities for the Social Enterprise across the following areas:

1. Development of the core taxonomy
2. Training
3. Support tools and resources
4. User community support
5. Accreditation

These needs and opportunities are described in more detail below.

6.1 Development of the core taxonomy

Opinions on the need for additional development of the core BCT Taxonomy were broadly split between practitioners who apply the taxonomy and behavioural scientists and researchers. Practitioners generally consider that the BCTs are already sufficiently comprehensive and well defined whereas the behavioural scientists and researchers identified some gaps and also areas where the taxonomy could be better aligned or integrated with concepts from other approaches and models. The following specific potential areas for improvement were identified:

- Missing BCTs:
  - Some behaviours are missing – for example the taxonomy includes "reduce negative emotion" as a BCT but it doesn't have "enhance positive emotion" which can equally influence behaviour
  - The taxonomy is good for avoidance behaviours and doing behaviours, not so good for "not doing behaviours"
  - The current BCTs are drawn from key health areas (exercise, diet, smoking, alcohol) and it would be helpful to expand the list of evidence BCTs to cover other behaviours/areas (mental health, air quality, anti-microbial, cardiovascular), and also identify additional BCTs that are not evidence based. (Note this is linked to and may be covered by the UCL Human Behaviour Change project)
  - More BCTs are required on automatic systems and environmental contexts and resources
  - Ensuring all BCTs a defined and broken to a similar level of granularity
- Does not take account of the delivery method:
  - The Taxonomy is specifically missing the distinction between an individual being given a goal and action plan vs. the individual suggesting their own goal and action plan. – Note this won't be relevant to all BCTs
- Integration of behavioural insights and behavioural economics concepts and other models (EAST and Mindspace). Providing a link between the behavioural insights used by behavioural economics and the reasons for using them (which unlike BCTs are currently missing from other frameworks) would be beneficial for these approaches. Inclusion of these concepts may help fill some gaps in the BCT and open the Taxonomy up to behavioural economists and expand the market e.g. into the behavioural insights people in government

- Linking to the TIPPME framework
- The need to track and take on board new evidence and feedback as the taxonomy is used more widely and to take account of new developments in the field
- More research needs to be done on what techniques work, behavioural clusters and how cluster design works. This will make it easier to apply. An approach to educating people on how to use it properly would also be helpful
- Broadening out the range of materials that can be coded. It is currently weighted heavily to academic papers, whereas other media are used for interventions
- Broadening the evidence base out beyond academic papers, which is potentially restrictive

6.2   Training

6.2.1   The importance of a strong training offering

It is generally accepted that some training and hands-on support is required in order to properly understand and apply the BCT Taxonomy and tools with confidence.

The experience of those individuals and organisations that have attended the Summer School and received bespoke training from UCL is universally good. However, it is recognized that current UCL delivered training tends to focus on those that need an in depth understanding of the taxonomy and/or support in setting up behaviour change teams and is relatively high cost.

The business case model also identifies training as the main potential revenue opportunity for the Social Enterprise and the ability to deliver training:

- at scale
- that meets the needs of individual and organisational users of the taxonomy
- is available in the format in which users wish to consume it
- at an affordable cost

will be fundamental to its viability.

It is clear that there is a gap in current provision by UCL, which users have typically filled by developing their own in house training and resources, and more could be done to address a broader range of training needs, particularly for those requiring a less academic, more practical understanding and capability.

6.2.2   Training approaches and needs

Different organisations approach training in different ways, notably in terms of the extent to which they wish to train in house vs. outsourcing. Training needs also evolve depending on the stage the organisation is at in terms of its adoption of the Taxonomy. Needs for external training support are highest when an organisation is initially establishing a behaviour change team or adopting the Taxonomy. Once it has built some experience and has one or more staff knowledgeable staff, the need for externally provided training may decline. However, there is a need to maintain the expertise on an ongoing basis.

"We have trained our own team of psychologists…We want to maintain a mix of developing and delivering our own training and getting someone from UCL in to help deliver initially…Long term we expect to build the skill set to support it internally. Experience of other local authorities is that just bringing people in for initial training is not sustainable – you need

internal people with the competencies to maintain (the capability)." – University of Bedfordshire

6.2.3   Recommended Social Enterprise training offerings

It is recommended that the Social Enterprise focusses on delivery of new training packages aimed primarily at non-academic policy makers and practitioners, with the UCL CBC continuing to provide the Summer School and more in-depth bespoke training.

"It would be good to be able to buy one to two-day training, and online training, that is testable (testing participants) and practical. - delivered by UCL or other qualified external people."

Specific training solutions that the Social Enterprise should potentially develop and offer include:

- A one-day introductory course that provide policy makers and practitioners with a basic understanding of the Taxonomy, COM-B and The Behaviour Change Wheel and how they are used, and the ability to apply them supported by the tools and resources provided by the Social Enterprise and/or a more experienced user
- An on-line "taster" short course that fulfills a similar function the one-day introductory course
- An on-line "modular" short course that provides more in-depth training than the introductory and taster courses, going deeper into the BCTs and the practical application of the tools. Trainees will be able to select from a menu of modules to build expertise in the areas that are most important to them
- A "train the trainers" course. This will train third parties to be able to deliver training on the taxonomy and tools and will be aimed at:
  - Organisations wishing to carry out in house training
  - Third party consultants and trainers offering training to their clients
- Accreditation courses. Targeted at consultants, agencies and others who offer commercial services utilizing the taxonomy and the tools and wish to demonstrate to clients that they are qualified to do so (see section 6.5 for more information). This will potentially be available to those who have already completed the on-line modular course as a prerequisite

An interesting point was raised on the need for the training regime to recognize that companies operating in a competitive commercial environment (such as communications agencies) need to build unique approaches and capabilities to differentiate their offering and that "vanilla" training offerings may not meet their needs:

"I need to add how competitive we are. We want to do it our way. There are a lot of agencies that use the COM-B, but we feel the way that we use it is unique. A homegenised service to healthcare agencies will not work. We want to be special; we want to differentiate – the market is very competitive – we are always pitching and have stand out." - Pegasus

6.3   Simplified tools and guidance

6.3.1   The need for simpler language and guidance resources

The most frequently raised challenge is the complexity and academic nature of the Taxonomy and the supporting guidance. While the academic and scientific rigour of the approach are universally

appreciated, the current presentation makes the Taxonomy much less accessible for users and potential users who are not behavioural scientists or academics.

Paid tools and resources are identified within the business case model as the second most important potential revenue stream for the Social Enterprise after training. Offering tools and resources that:

- Provide real value to users, most notably by making key the intervention coding and design processes more efficient and more successful
- Are clearly differentiated from the freely available resources, notably in terms of design values and ease of use

will be critical to the financial viability of the social enterprise.

Currently much of the support and training material is complex, uses scientific language and is unduly focussed on the academic methodology and background to the taxonomy for those who are looking to apply it correctly in practical, real world situations. Furthermore, the resources required to support the application of the process are currently somewhat fragmented, requiring users to find and move between different resources. This has prompted some users to create their own resources to simplify the application of the process.

"Strip out the references to the Theoretical Domains Framework and other behaviour change taxonomies & distilling it down to core elements, which for me is the COM-B model, and how each of those elements are defined - including the questions to ask about the COM-B model." *– HRW Healthcare*

"Having a (practitioners) package of stuff (training, e-learning, resources) is a need not well enough provided for at the moment…. There is a lot of work that is commissioned out to social marketing companies and other private companies in public health. etc. There is a big need for quick, responsive pieces of work that are done by "less than experts"…we would like to raise the quality of that work, but academia is often not well positioned to respond in that way" – PHE

"The practical guide is helpful. We commissioned UCL to create a user-friendly guide - short guidance for people in local government who wouldn't go into the academic papers – opening up access to these things." PHE

One interviewee pointed out that in the commercial digital intervention/app context people are "super time and resource constrained" and therefore resources that enable them to very quickly understand the core concepts and apply them effectively are essential.

Another also described how they use other, simpler methodologies in preference to the full taxonomy to compensate for the complexity, and lack of simple linkage between COM-B and the BCTs.

"We do masterclasses on behaviour change – we use COM-B for the diagnostic part - what is the cause of the issue why is it happening, but don't have enough time in a masterclass , and it is too overwhelming to go through BCTs – And because (COM-B and BCTs) are not linked anyway, so we go to Mindspace and EAST…. because they are so much simpler, but they are not half as robust and are completely different set of techniques" - PHE

The challenge will be to make the process simple and accessible without sacrificing the rigour that comes through its evidence based approach.

"Demand would be increased if simpler to understand - but I don't want it dumbed down - if anything I want it more detailed & more techniques" - PHE

The qualitative research indicated that the practitioners and non-behavioural scientists gain most value from the simpler tools (COM-B and the Behaviour Change Wheel). Working through the analysis process enabled by the tools can be very valuable in for example designing a population level communications campaign. The BCTs themselves are often considered more difficult to understand, identify and apply.

"BCTs can be further out of comfort zone as laymen – as don't have extensive knowledge – we are not trained psychologists" - Pegasus

Two themes emerged in terms of improving the accessibility of the BCTs:

1. Supporting users in understanding the more complex BCTS
2. Improving ease of "navigation" of the BCTs to enable users to more easily identify the areas of most importance and to get high level understanding of the options available to them.

Two interviewees commented that it is currently necessary to have support from an expert to fully understand the complex BCTs and that more guidance is needed than is available just from reading a paper. In a commercial environment the overhead associated with understanding and applying them through non-expert staff can be expensive:

"Our first experience with it – we …really needed an expert there to say this technique is this in the taxonomy… (it took) a lot of manual people time to identify the BCTs with the tag. then there is the cost of having the software engineers to code the tag and the data engineers….it is pretty costly." Johnson & Johnson

This may be an area where a support network could play a role (see section 6.4 below).

In terms of navigation of the BCTs, one interviewee pointed out the complexity of the "many to many" mapping between the BCTs and the categories and the fact that this can be confusing.

Additionally, there is benefit to users in referring to or "scanning" the BCTs as a way of identifying possible options that are open to them, without necessarily needing to understand the detail.

"The BCTs could be a lot more useful and beneficial than are at the moment. I use them mostly as a lookup tool – it is very useful to guide thinking and the development of features. A practitioner may not always need to be too rigorous in the application – just use it as a guideline." UX Researcher

However, some interviewees pointed out that when it comes to the BCTs only a small subset are relevant to the interventions they are looking at. A digital tool that helps to filter the most appropriate BCTs would potentially be beneficial here (see section 6.3.4 below).

6.3.2 Linking between the Taxonomy and the Tools

A number of interviewees highlighted the need for better and simpler linking variously between COM-B, the intervention functions, the BCTs, the Behaviour Change Wheel and the TDF to ease the process of intervention design.

The TDF is identified by some more advanced users as being important in understanding the sources or causes of a behaviour and which categories of behaviour change to focus on. However, linking between the BCTs, The Behaviour Change Wheel and the TDF presents a challenge and improving these linkages would simplify the analysis process.

"People don't tend to see the wheel all the way through – the TDF they find complicated and if I present on the wheel – it is quite difficult to relate the information in a user-friendly way." - University of Bedfordshire

"The link between the TDF and BCTs is slightly difficult to navigate. There are elements of it which do make good sense. It may be more a design issue than a conceptual or theoretical issue, (but it) requires a fair amount of thought to make the link." – MindGym

Those non expert practitioners following a simplified analysis approach would also benefit from easier mapping between COM-B and the potential intervention options:

"(Improving) the grid that aligns the COM-B categories to the interventions strategy - that then makes the taxonomy a lot more actionable Using the pages in the book that have the most widely used techniques and then using the app to make sure I am defining them correctly really useful, but in order to do that I have to use a lot of really dogeared pages in my book and my phone. That is not a particularly easy process. We have created grids to train in house." – HRW Healthcare

"In the taxonomy app for example…there is not a direct breadcrumb trail to the intervention. …when BCTs are not anchored to interventions we are not experienced enough to know how that fits in. In the back of the Behaviour Change Wheel book is a table which we have replicated in our training where it is organised by intervention. For non-academics, the biggest bit of insight I can give you is that without that table it is not usable for us." - Pegasus

"There is not a good mapping of BCTs onto intervention function in an easy way – there may be tables but you are not going to look at those – it would be better in an app or something – as a practitioner you want this - plus the reverse look up." – UX Researcher

6.3.3 Design, presentation, experience and language

In terms of improvements in resources, the packaging, design and user experience will arguably be as important as the rigour of the approach and functionality of a tool or resource. The interviews also highlighted some areas where the current visualisations, notably the Behaviour Change Wheel can confuse users. There is also a clear need amongst practitioners to move to more easily understandable non-academic language.

"Make it easy, relevant, colourful, easy to navigate – the biggest challenge is for non-academics coming to it and trying to make sense of it." – Goodlife Fitness

This is particularly the case where the users are commercial agencies who place high value on creative differentiation. Examples would be marketing and communications agencies, app and web designers and developers.

> "When thinking about the commercial world and communications agencies – we are very visual and used to creating things that are very visual and appealing to look at. If you want to appeal to that audience, a bit of effort on visual engagement would go a long way." – Pegasus.

> "The whole thing would benefit from a high quality graphic designer going through this – it feels academic at the moment – to make the leap from academic to helping practitioners, work needs to be done on the practitioner aspect…..The online offering feels quite academic and orientated to knowledge transference rather than you helping me to change behaviour in my organisation." - MindGym

Investing in high quality creative and packaging of tools and resources, particularly those that will be used by non-expert practitioners will:

- Make them easier for users to understand and apply
- Save users the effort they are currently investing in creating their own resources to bridge the gaps between the current disjointed tools and resources
- Increase perceived value and differentiate paid for resources from those that are freely available

There will be a role for both digital and physical resources. One interviewee suggested a poster depicting the taxonomy would be useful; and another pointed out that physical assets can also be attractive and a potential revenue source, referring to Coglode cards[7] as an example:

> "Physical assets can sell as well as training and consultancy - In UX people love this kind of thing" – Digital/UX Consultant

6.3.4 Digital Tools

The interviews identified that while the current online tools and resources are helpful and valued, more sophisticated and better presented digital tools would make the intervention coding and design processes more efficient and would help ensure that users are interpreting and applying the taxonomy and the techniques appropriately.

The most requested improvement would be online tools that would automate the COM-B and Behaviour Change Wheel based analysis processes and recommend appropriate BCTs based on the behaviour, context and population being targeted.

> "People would use digital tools – they are not going to read the book and rarely look at behavioural science literature. If you had something where you could put in the population you are targeting and it pops out the BCTs you should use…..." – University of Bedfordshire

---

[7] https://www.coglode.com/nuggets

"It would be very useful to have (the worksheets etc.) as a digital tool. You come up with the COM-B elements you are going to focus on and come up your functions - if all of that could be feeding into a programme where you are populating the next step as go along, rather than all paper based. A simple digital tool would streamline that process quite a bit." – *safefood Ireland.*

"A digital catalogue of BCTs but not as now – it should searchable, filterable, applicable things – where you can quickly pull something out and look it up. Developing a better resource would be great." – *UX Researcher*

Linking this to research evidence that backs up the selection of BCTs would also be beneficial:

"that would be awesome and if it was matrixed behind the scenes but there was this fantastic digital user interface that would be the dream." – *Pegasus*

"The dream would be if you could select a psychological capability that would throw up techniques that could be used with real examples of how they have been used. – But it would need to be done in a quite specific way for the audience." - *ZINC*

One interviewee pointed out the need to ensure that mode of delivery is taken into account.

Digital tools and resources could also be more effectively used to help users better understand the tools and the BCTs and to increase the likelihood of techniques being applied correctly:

"I use the website digitalwellbeing.org as they have a PDF version (of the Taxonomy) online (that) has hyperlinks to each BCT– UCL don't have one with hyperlinks – that would be helpful. Videos could be used more…...It would be amazing to have a YouTube video for each BCT – with someone like Lou or Susan explaining each." – *Independent Consultant/University of Bedfordshire*

There was some criticism of the current mobile App from interviewees, notably the presence of ads and that the user interface and user experience could be improved to make it easier to navigate to BCTS.

There may also be some demand for tools that are more specifically targeted at developers of digital interventions and apps, for example allowing developers to speed the process of analysing data, tagging screenshots and linking to BCTs. This process is time and resource intensive, especially when a developer is going through the process for the first time.

"I wish (the process of applying the taxonomy) was more automated. – the time it takes to educate people. Could there be a code that says use this tag?… here is what the code might be for data engineers? – an easier service model" - *Johnson & Johnson*

6.3.5   Development of practical examples

Additional practical examples of the application of BCTs, would help to build the confidence of users in terms of understanding which BCTs have been used successfully to address specific behaviours in specific contexts. Ideally these additional examples would:

- Be presented in a format and using language that is accessible to non-academic practitioners, and brings the use of the BCTs to life

- Cover a wider range of use cases – within and beyond health
- Cover different delivery scenarios (digital etc.)

"Current examples are often relatively simplistic, based on face to face scenarios and not relevant to digital. There is a need for examples that bring it to life in terms of what it should look like….it is also about refining the comprehension & language for those who are not academic" - Digital/UX Consultant

"The most useful thing is to have as much information as possible that is publicly available – more examples, maybe videos giving practical examples and showing what an intervention would look like, examples of the techniques used, training tools etc." - NICE

"It would be useful to have more published examples available and we would also be prepared to contribute to this." safefood Ireland

6.3.6 Measurement of the effectiveness of interventions and responding when interventions fail

Another theme emerging from some of the interviews is that it is currently difficult for practitioners to measure the effectiveness of interventions. In some cases, for example some campaign-based population level interventions, this can be challenging as target populations may be small and data difficult to collect, however in the case of digital interventions it is possible to measure how users respond to and use functions and content. There also appears to be a willingness amongst practitioners, including commercial agencies to share results of interventions if they are accurately measurable.

"If we were to have the tools to measure campaign effectiveness we would be prepared to measure and share in a way that doesn't comprise us commercially… having such tools & evidence of the effectiveness of campaigns that we have run - to ensure that are putting in place campaigns that are socially beneficial and to improve campaigns would be absolutely beneficial." – Pegasus

Providing practitioners with tools or techniques for measuring intervention effectiveness would have the benefits of providing:

- Additional evidence to add to the body of academic research supporting the BCTs, notably covering digital and population level delivery methods
- Evidence to enable refinement and better targeting of interventions and campaigns based upon measured effectiveness, and to ensure greater rigour
- Evidence that would allow commercial players to demonstrate the effectiveness of their work, build their reputations and differentiate themselves from competitors
- Additional practical case studies to guide practitioners
- Providing stronger evidence on the positive outcomes, that would help policy makers, budget holders and decision takers to provide funding for initiatives using the Taxonomy

A related enhancement to the Taxonomy, tools and guidance would be a methodology and/or support and information sharing to help users identify and address situations where an intervention doesn't work and/or the target population or individuals do not respond. This was raised in the

context of digital interventions where data is available on responses and the challenges of interpreting and responding to that data.

"What do we do with groups that don't respond? How do you test that in a way to get insights on how to deal with this? We are creating an experimental lab to test out what works for people who respond less well. Is there some type of service or way to figure this out? We don't want to do this ourselves, collaboration would be good" – Johnson & Johnson

6.4   Community Support

A number of interviewees reported the importance of the personal hands on support they have received from the UCL CBC team and there is recognition that expert and peer support is valuable in understanding and effectively and correctly applying the Taxonomy and supporting tools. It is also recognized that the CBC will be unable to scale the support that it currently offers to a number of the organisations and individuals interviewed.

One way of addressing this would be to create a "Community Network" that would potentially:

- Keep members up to date with scientific developments and news
- Provide a forum for sharing use cases and examples
- Provide a forum for peer to peer support around understanding and applying the taxonomy and tools
- Provide a forum for commercial service providers to promote their services to buyers
- Re-enforce and build upon training
- Provide a network of informed "ambassadors" who can raise awareness of the Taxonomy and the benefits it offers much more widely than UCL CBC staff can do on their own
- Help to ensure and maintain standards
- Provide a vehicle through which events can be organized and promoted

"It would be really nice to have some kind of network of people working in public service who could share experiences, ask questions, provide help, support each other as well as UCL. Being able to speak to people who are working for the public good would be helpful. They might adapt the techniques in a way that it would be helpful to hear about. It doesn't have to be restricted to public service – it could be wider…. It would be nice to have some kind of conference…. not necessarily annually but to have some more intense sort of face to face experience." - safefood Ireland

"I benefit from a close relationship with members of the CBC group - being able to check with the group on the interpretation of BCTs and that I am doing it right. Some sort of peer support network would probably go down really well." - Independent consultant/University of Bedfordshire

The UK centric Behavioural Science and Public Health Network[8] (BSPHN) provides evidence of the potential viability of such a network. The business case model also identifies subscription and event

---

8 https://www.bsphn.org.uk/

fees as a potential revenue source for the Social Enterprise, assuming that ownership and management of the network is one if its roles.

However, the role of the network and positioning against formal organisations, notably BSPHN, and more informal peer support networks operating over Twitter, Slack etc. needs careful consideration.

6.5 Accreditation

A number of interviewees raised the need to maintain integrity of interpretation and application of the Taxonomy. It was suggested that some commercial service providers offer services that they claim utilise the taxonomy, but that they don't necessarily have the skills and expertise to apply it correctly.

"Digital health is the wild west of behavioural science. Every second consultancy, marketing company, digital health company etc., claims to be expert in behavioural change - but aren't."
- ZINC

Having some kind of accreditation scheme, potentially administered by the Social Enterprise could:

- Allow local authorities and others purchasing behaviour change services to have confidence that suppliers are suitably qualified to apply the Taxonomy and the tools correctly
- Allow commercial providers who have invested in training and development of services that maintain the integrity of the taxonomy and the tools to differentiate from those that don't
- Allow the Social Enterprise to scale the ability to provide consistent training and consultancy through a network of accredited associates
- Give individual employees and their employers recognition of the fact that they are trained in the application of the Taxonomy

"For Local Authorities, it would be good to have a set of rubber-stamped people or resources where they know what they are getting is good. I see other people who are (using the Taxonomy) but not doing it well. Anyone can be a behavioural scientist, it is not a protected term. People…. are saying they are using COM-B and the Taxonomy but are not using it in a structured, evidence-based way." – Independent Consultant/University of Bedfordshire

Accreditation would potentially be linked to training and is identified in the business case model as a further potential revenue stream – based on a recurring fee to maintain accreditation.

However, the design of the scheme would need to take account of:

- The fact that the Accreditation scheme or Social Enterprise would not be able to guarantee or underwrite the quality of work delivered by accredited suppliers
- A scheme should recognise practitioners who are not academically qualified as behavioural scientists but are able, as a result of training, to apply the Taxonomy
- That accredited commercial providers will need the freedom to interpret the Taxonomy and the tools and develop innovative services and approaches to applying them in a way that differentiates them from competitors. Any accreditation scheme should not restrict them from doing this.

"We want to democratise it, but don't want to end up with a situation where it dis-empowers people if only top academics get certified." – ZINC

7 Proposed role, and proposition for the Social Enterprise

7.1 Social Enterprise role

The proposed role of the Social Enterprise is:

To facilitate wider access to the BCT Taxonomy and help a worldwide community of users to effectively apply it in support of delivering improved public health, environmental, societal and organisational outcomes through:

- *Active awareness building and promotion of the Taxonomy to encourage the widest possible adoption in areas where it can deliver benefits*

- *Development and delivery of accessible training programmes, for non-academic policy makers and practitioners*

- *Development and delivery of globally accessible introductory and on-line training programmes for academics and researchers worldwide*

- *Development and delivery of accessible and effective digital and physical tools and resources to support those adopting and applying the Taxonomy and associated tools*

- *Supporting and facilitating a peer to peer support network of academic, policy maker and practitioner users*

- *Maintaining the integrity of the Taxonomy and providing a degree of assurance for purchasers of services through the development and management of a practitioner accreditation scheme*

- *Encouraging the building and sharing of further coded evidence through assessment of interventions delivered across a wider range of channels, use cases and sectors than is achievable through academic papers*

The main proposed activities of the Social Enterprise are summarised in Figure 1 below:
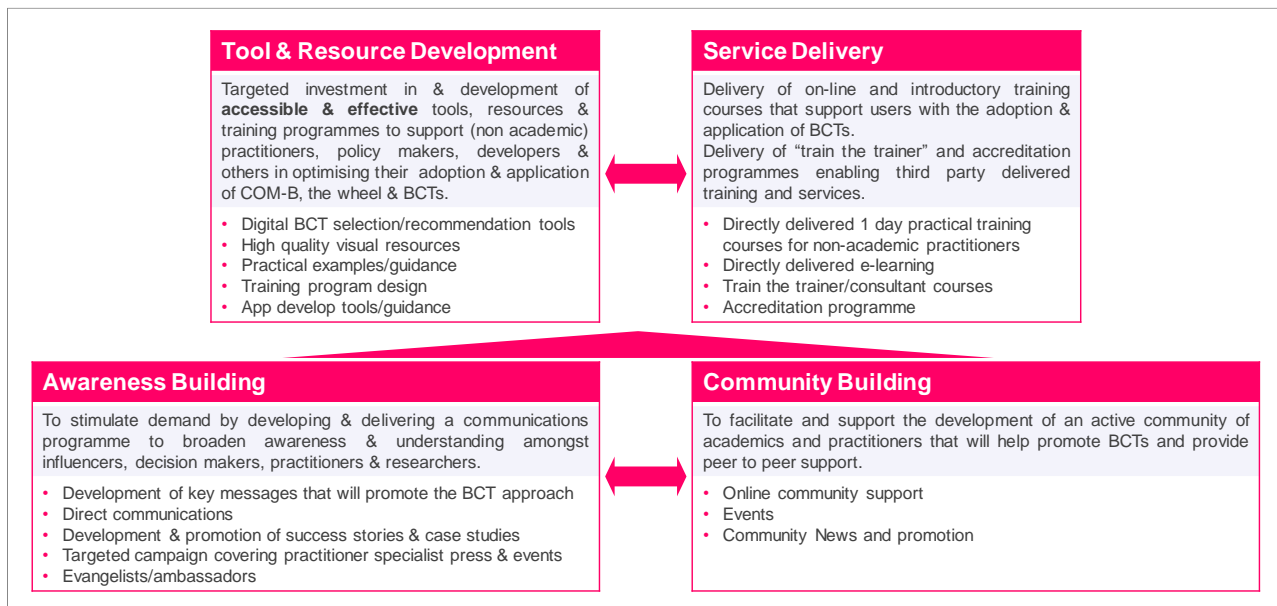
Tool & Resource Development

Targeted investment in & development of **accessible & effective** tools, resources & training programmes to support (non academic) practitioners, policy makers, developers & others in optimising their adoption & application of COM-B, the wheel & BCTs.

- Digital BCT selection/recommendation tools
- High quality visual resources
- Practical examples/guidance
- Training program design
- App develop tools/guidance

Service Delivery

Delivery of on-line and introductory training courses that support users with the adoption & application of BCTs.
Delivery of "train the trainer" and accreditation programmes enabling third party delivered training and services.

- Directly delivered 1 day practical training courses for non-academic practitioners
- Directly delivered e-learning
- Train the trainer/consultant courses
- Accreditation programme

Awareness Building

To stimulate demand by developing & delivering a communications programme to broaden awareness & understanding amongst influencers, decision makers, practitioners & researchers.

- Development of key messages that will promote the BCT approach
- Direct communications
- Development & promotion of success stories & case studies
- Targeted campaign covering practitioner specialist press & events
- Evangelists/ambassadors

Community Building

To facilitate and support the development of an active community of academics and practitioners that will help promote BCTs and provide peer to peer support.

- Online community support
- Events
- Community News and promotion

Figure 1: Summary of the proposed main roles and activities of the Social Enterprise.

7.2 Social Enterprise Proposition

The proposition of the Social Enterprise to users will be as follows:

Provision of high-quality training, tools, resources and support that allows policy makers, practitioners and service providers to:

- *Build a sufficient understanding of the Taxonomy and associated tools*

- *Manage and deploy processes to select, design and assess the interventions*

more efficiently and effectively and with greater integrity than can be done using freely available academic tools and resources.

7.3 Positioning of the Social Enterprise vs. CBC and freely available academic material

It will be important for the Social Enterprise to position itself and it's work and services in a way that is clearly differentiated from those of the CBC. It will also be critical to ensure that there is a clear value proposition differentiating paid for training, tools and resources offered by the Social Enterprise vs. existing and academic materials that are freely available in the public domain.

Table 1 below summarises the proposed differentiated positioning

	Social Enterprise	CBC
Role	• Development & delivery of packaged training, tools & resources, that can be offered globally at volume and are optimised to support researcher, policy maker & practitioner application of the taxonomy in "common scenarios" • Global awareness building/ marketing • Management of the peer to peer support network and accreditation scheme	• Research & development of the "core science" • Publishing of academic papers and resources targeted primarily at academics and behavioural scientists • Delivery of in-depth and bespoke training and consulting focussed on the science and advancing the application of the Taxonomy • Targeted awareness raising and advocacy through "named" members of the CBC
	Social Enterprise	**Public Domain CBC & Academic**
Services and Resources	"Packaged" training, tools and resources that: • Are optimised to minimse the effort/overhead required by users to understand and apply the taxonomy and tools • Are "accessible" and require minimal background knowledge of the science • Are easy to use and visually attractive • Use non-academic language	More academically biased papers, articles and books that: • Provide rigorous explanation of the evidence and science • Assume or require a degree of pre-existing knowledge and familiarity with academic terminology • Require effort to navigate, collate and repurpose to use for practical intervention design • May require expert support to interpret and apply

Table 1: Relative positioning of the Social Enterprise, its services and resources

7.4   Role and person spec of the CEO

The CEO will play a key role in leading the development and launch of the Social Enterprise and ensuring its ongoing success in fulfilling its remit and meeting its service delivery and revenue targets.

7.4.1   Suggested summary of the role

The role of the CEO will include:

1. Working with the board and key members of the UCL CBC to define and develop the vision and proposition of the Social Enterprise, including defining the package of training, tools and resources that the Social Enterprise will offer
2. Defining and agreeing the detailed development objectives during the build phase
3. Prioritising the development activities and ensuring that they are delivered to time and budget
4. Acting as a leading ambassador for the Social Enterprise and its work and raising the awareness amongst potential customers, partners and opinion formers
5. Developing and overseeing the execution of a marketing and business development strategy
6. Leading business development activities to win customers – particularly amongst academic institutions, Public Health Bodies, National and Local Government and commercial consultancies, agencies and service providers delivering behaviour change services
7. Setting the business strategy for the Social Enterprise in the post build period, including ongoing development of the core proposition, expansion of the offering to address sectors beyond health and attracting customers and network members globally
8. Managing the day to day operations of the Social Enterprise and providing leadership to staff, secondees and contractors
9. Working with the board to oversee the governance and financial management of the Social Enterprise and ensuring that financial targets and other governance obligations are met

The role will initially be part time (0.5) moving to full time after launch of the Social Enterprise

7.4.2 Suggested outline person specification

Prospective candidates for the CEO role should have the experience, drive and passion to lead the creation and development of an organisation that exists to support the delivery of interventions aimed at bettering the health and lives of individuals globally. It is not necessary that they have a behavioural science background, but they should be entrepreneurial, and a creative and strategic thinker with:

- Experience of building and managing a not for profit organization
- Experience of working collaboratively with, and providing services to, one or more of:
  - Academic institutions,
  - National and/or local government
  - Health and/or social care service commissioners and/or providers
  - Environmental and/or social justice focused organisations
- A proven ability to build relationships with opinion formers and senior leaders in client organisations
- A proven ability to develop revenue generating business opportunities
- The ability to work constructively with stakeholders in, and advisors to their organisation
- The leadership skills to build a dynamic, fulfilling and focused working environment for those within and contributing to the organisation
- A proven track record in organisational and financial governance

8 Commercial model and business case

The Social Enterprise will operate on a not for profit basis but will aim to be self-funding after two years, generating revenues through:

- Provision of training
- Licensing of tools and resources
- Referral and management fees for subcontracted and/or referred consultancy services introduced or sold through the Social Enterprise and delivered by associate consultants
- Network membership and event fees
- Accreditation fees

The primary research indicated that people would be prepared to pay for each of the above services and some examples were provided of budget levels and comparable services that organisations pay for. These and additional services were used as benchmarks in the pricing models used in the business case model.

The development and delivery of its services will be resourced through a combination of:

- Salaried employees
- Seconded members of the UCL CBC
- Third party contractors and associates

Subject to the business model being proven, resource levels will be built up over time to a level sufficient to build awareness and adoption of the Taxonomy and deliver services across all relevant sectors worldwide.

Any surplus revenues generated will be reinvested in further development of training, tools and services and in contributing to the funding of the core science of the Taxonomy.

The financial projections and key metrics in the outline business plan are summarised in Tables 2 and 3 below:

	2020	2021	2022
Total Revenue	**£9,900**	**£456,493**	**£1,228,145**
Revenue Breakdown			
Total Training Revenue	£0	£333,000	£896,625
Total Consulting Revenue	£5,400	£13,500	£27,000
Tools Licensing Revenue	£0	£87,952	£249,765
Network Revenue	£0	£5,241	£13,565
Accreditation Revenue	£4,500	£16,800	£41,190
Total Cost	**£502,707**	**£391,644**	**£575,865**
Cost Breakdown			
Salaried staff costs	£146,197	£265,780	£391,390
Seconded CBC staff costs	£57,686	£30,538	£14,256
Contractor costs	£262,500	£52,500	£115,020
Other current account costs	£36,325	£42,825	£55,200
Annual Surplus/Deficit	**-£492,807**	**£64,849**	**£652,280**

Table 2: Summary projected business case financials

The business case forecast shows a cumulative deficit of £555k incurred over the first 6 quarters. This covers the prelaunch and early post launch phases when investment is required for the development of the training, but the Social Enterprise is not yet generating sufficient revenues to cover costs.

	2020	2021	2022
Services Sold			
Individuals trained	0	510	1430
Affiliate/subcontracted consulting days sold	40	100	200
Year-end active tool & resource subscriptions	0	300	750
Year-end network members (exc. Tool subscribers)	0	75	250
Year-end accredited consultants, trainers & companies)	10	50	100
Employees			
Year-end FTE	3.1	4.0	6.0

Table 3: Summary business case metrics

9 Funding Requirement

The business case cost and revenue projection currently identifies a funding requirement of requirement of £555k, incurred over the first six quarters. This will be at least partially funded by the Wellcome Foundation funding. This funding will mainly cover:

- The initial development costs of the training, tools and resources to be delivered by the Social Enterprise
- The early stages of building awareness of the Social Enterprise and the services it is offering and building relationships with potential partners and customers.

10 Annex 1 Informal Qualitative Research Interviewees

The following interviews were completed:

This information has been removed to adhere to the privacy policy.

Note: In order to comply with the privacy policy applied to the interviews, personal data may not be shared and information or opinion provided by interviewees may not be personally attributed to an interviewee either outside of FirstPartner and the UCL BCU team, or for purposes other than completion of this work, without the express permission of the interviewee.

11 Annex 2 Offers of further support from interviewees

Some interviewees offered to provide additional support to the establishment of the Social Enterprise and development of its services. These are listed below for the CBC to follow up as appropriate:

This information has been removed to adhere to the privacy policy.