Faculty of Arts Research Ethics Committee

Upon completion this application form should be uploaded as an attachment, together with documents referred to in the application, to your online ethics submission. This form should be completed in conjunction with the guidance form.

	Questions 1-12 **Contact Information and Study Details**
1.	**Title of the research:** Identifying and Mapping Threshold Concepts of Entrepreneurship Across University Entrepreneurship Education Programmes
2.	**Applicant details:** Student Name or Principal Investigator: Dave Jarman Job or Course Title (UG or PG): Senior Lecturer (Entrepreneurship) Contact number: Email: dave.jarman@bristol.ac.uk
3.	**Details of Supervisor (if applicant is a postgraduate or undergraduate student)** Name: Title: Contact number: Email:
4.	**Other investigator(s) involved, with job title:**
	Dr Lucy Hatt, Senior Lecturer, Newcastle University.
5.	**Source of funding:**
	Enterprise Educators UK – Enterprise Education Research Project Fund (EERPF): https://www.enterprise.ac.uk/develop/eerpf/
6.	**Start Date and Project Duration:**
	Start Date: 1/8/20
	Duration: 12 months
7.	**Where will the study take place?**
	The Transactional Curriculum Inquiry will take place amongst Centre for Innovation and Entrepreneurship colleagues at the University of Bristol. There will be some wider consultation of Enterprise Educators through the EEUK network largely nationally but with some international contributions. All of that work beyond the CFIE will be online-only.

8.	**Background and aims of the study:**
	This project applies and builds on Dr Lucy Hatt's PhD research using the threshold concept framework to enhance entrepreneurship curricula in higher education.

It prototypes a transactional curriculum inquiry (TCI) approach to identify local threshold concepts with staff from the University of Bristol's Centre for Innovation and Entrepreneurship (CFIE) as part of a programme review and an evaluation of student understanding.

Combining this process and the CFIE Team's Design Thinking expertise, a toolkit will be developed for EEUK members to develop and evaluate their own enterprise education curricula informed by the threshold concept framework, concept mapping and a TCI approach.

As the Post-graduate Programme Director in CFIE, Dave will coordinate; the integration of the Threshold Concept framework within the CFIE programme review process; the evaluation of level of student understanding of the defined local threshold concepts across each year-group using concept maps; and co-author the resultant EEUK toolkit and supporting materials based on the experience and outcomes at Bristol University. Lucy will train, facilitate, offer knowledge, expertise and support Dave and his colleagues, as well as co-authoring the EEUK toolkit and supporting materials based on the experience and outcomes at Bristol University and her relevant experiences elsewhere.

This project goes to the heart of the 'what works in entrepreneurship education?' question. By establishing a coherent set of locally agreed threshold concepts in entrepreneurship and then evaluating how well students can identify and nuance their understanding of those concepts using concept mapping, we can enable a conceptually underpinned increase in the scale and scope of enterprise education initiatives, and explicitly evidence their efficacy.

For the purposes of the CFIE team, the aims of the project are to:
- Foster a collective conversation about what we mean when we talk about entrepreneurship and how this relates to our mission to support our students to change the world
- Develop a consensus agreement on a definition of entrepreneurship that we can all adopt and use as a cornerstone of our curriculum development process
- Develop this shared understanding of entrepreneurship in our students
- Develop a set of candidate threshold concepts for entrepreneurship that might be consistently embedded in our curriculum and assessed in our students as a measure of the success of our curriculum in delivering our mission
- To continue to pioneer cutting-edge educational practice in entrepreneurship education

This project will also contribute to the aims of Enterprise Educators UK; namely to
- To increase the scale, scope and effectiveness of enterprise education initiatives (curricular and/or co/extra-curriculum) that can be utilised by EEUK members
- To underpin the curriculum with research in new and developing approaches to embedding enterprise education in the curriculum and/or co/extra-curriculum
- To provide evidence of the effectiveness and impact of enterprise education
- To offer an innovative approach and application using theoretical conceptual and policy frameworks in enterprise / entrepreneurship education

This project goes to the heart of the 'what works in entrepreneurship education?' question. By establishing a coherent set of locally agreed threshold concepts in entrepreneurship and then evaluating how well students can identify and nuance their understanding of those concepts using concept mapping, we can enable a conceptually underpinned increase in the scale and scope of enterprise education initiatives, and explicitly evidence their efficacy. |

9.	**Outline the design of the study and list the procedures to which the participants will be subjected, the anticipated testing time and any treatments administered:**

	1. Briefing document and survey sent out to ~20 participating CFIE staff (mid Oct)
	    a. Participation is voluntary and anonymous (apart from stage 4 for some participants)
	2. First draft of Bristol Threshold Concepts (TC's) developed
	3. Participating staff group split (A and B1 & B2) and individual feedback on first draft collected from Group A. Focus groups held with willing CFIE academic staff in groups B1 and B2 followed by collection of individual feedback on first draft (early Nov).
	4. Second draft developed from CFIE feedback
	5. Individual feedback sought on second draft (Mid Nov)
	6. Third draft developed from CFIE feedback (early Dec)
	7. External stakeholders surveyed and responses collected (early Dec)
	8. External stakeholder contribution + Candidate Entrepreneurship Threshold Concepts developed by Dr Hatt circulated to CFIE with third draft for feedback (mid January)
	9. Fourth draft developed incorporating CFIE feedback in light of external inputs (Early Feb)
	10. Fourth draft circulated for final approval to CFIE team (early March)
	11. Concept mapping workshops held with students to assess how students on the existing programme perceive the existence of threshold concepts within the existing curriculum (May)
	    a. Concept mapping involves groups of students being asked to draw or make visual maps and diagrams of concepts; in this case, of how they understand the most important concepts within 'entrepreneurship' and 'entrepreneurial thinking'. These workshops will now be conducted over MS Teams and use the Mural online whiteboard environment to sketch out, illustrate, and organise their concept maps.
	
	No treatments will be administered.

10.	**Does your study involve the collection or use of any human tissue or exudate? If yes, what is the material to be collected?**.
	Yes ☐ No X

	If yes, please explain:
10a.	**If you have answered 'yes' to Q10, has confirmation been obtained from your Departmental Human**

	Tissue Act Advisor that collection and storage of this material will be undertaken under an appropriate licence?
	Yes ☐ No ☐
11.	**Will the research involve working with animals?**
	Yes ☐ No X
	If yes, please identify how you will address any animal welfare issues and whether you have undertaken ethical review elsewhere (e.g. zoo or national park authorities). Please also see the relevant guidance.
12.	**Has this study been subjected to peer review?**
	Yes ☐ No X

	Questions 13-22 **Recruitment and Informed Consent**
13.	**Who will be recruited to participate in this study?**
	For the Transactional curriculum inquiry with CFIE colleagues we will be asking CFIE colleagues to participate in the study. There is no obligation to do so although there is collective benefit in doing so and many colleagues will be curious to have input. For the concept mapping we will be recruiting a group of volunteer students from each year-group (4 UG year-groups and 1 PGT year-group) within the Centre to participate.
14.	**Are there any potential participants who will be excluded? If so, what are the exclusion criteria?**
	We are excluding anyone who does not in fact design, deliver, or study entrepreneurship education within the CFIE – so CFIE administrative colleagues who are not academic educators will be discouraged from participation and their answer sifted out if they do respond to a survey.
15.	**How many participants will be recruited?**
	Around 20 from the CFIE team. For the Concept Mapping workshops with students we would hope for at least 3 students from each year group (minimum 3 students per year-group in any workshop with a minimum of 15 students participating overall).
16.	**How will the participants be recruited?**
	For the Transactional curriculum inquiry with CFIE colleagues we will be asking CFIE colleagues to participate in the study via internal emails and in staff meetings. Students will be recruited via emails sent to each year group within the Centre seeking volunteers for a study into threshold concepts of entrepreneurship in education. This will be done after all assessments are completed and marked so as to be clear no advantage or influence is gained through volunteering to support Centre research.
17.	**How will informed consent be obtained from all participants or their parents/guardians prior to individuals entering the research study?**
	Almost all research steps are online-survey based so the first page of all surveys will include participant information and a clear statement that completion of the survey indicates consent to participate. The focus groups will be with staff who have already indicated their consent to participate in the study having already completed a survey. Student participants will be asked to complete a Consent Form and indicate their consent before participating in the workshops.
18.	**How long will potential participants have to decide whether to give consent?**
	Between 2 weeks and a month from receiving the survey link until it closes. In the case of student concept-mapping workshop participants up to 1 week from receipt of the Consent Form before the workshop takes place.
19.	**Will participants be kept informed of new information that becomes available during the study which may influence their continued participation**?

Yes.

20.	**Will the study involve actively deceiving, or withholding information from, the participants?**
	Yes ☐ No X
	If YES, explain why it is necessary to use deception and state how you will ensure that the participants are provided with sufficient information at the earliest stage, and how you intend to ameliorate possible distress caused by the deception, including a plan for subject debriefing.
21.	**Will participants be made aware that they can withdraw from the study at any time without having to give a reason for doing so?**
	Yes
22.	**Describe potential risks (physical, psychological, legal, social) arising from these procedures:**
	There are no perceived risks associated with participation in the study.
22b.	**Is there likely to be any risk to the investigator during this study?**
	Yes ☐ No X
	If yes, please explain how this will be minimised
22c.	**Is there likely to be any risk eg. legal, adverse publicity, to the UoB?**
	Yes ☐ No X
	If yes, please explain

	Questions 23-32 **Outcomes and Data Protection**
23.	**How will participants be informed about the outcome of the study?**
	CFIE staff participants will see several iterations of the emerging TCs and the final agreed set. One of the conditions of funding is the publication of the resulting toolkit on the EEUK website. This will be available freely to all EEUK associates and fellows (and all CFIE staff are associates or fellows of EEUK as a member organisation). Student participants will be notified of the publishing of the agreed final set of TCs and the analysis of the concept mapping workshops as part of the publication of the EEUK toolkit.
24.	**How will the results of the study be disseminated and reported?**
	One of the conditions of funding is the publication of the resulting toolkit on the EEUK website. This will be available freely to all EEUK associates and fellows (and all CFIE staff are associates or fellows of EEUK as a member organisation). Access to the study will be made available to students who request it.
25.	**Is any payment other than reimbursement of expenses to be made to participants?**
	Yes ☐ No X
	If YES, outline the reason for this and the amounts involved.
26.	**Will personal data, beyond that recorded on the consent form, be used in the research?**
	No.
27.	**Will the participants be audio-taped or video-taped?**
	Yes, the focus groups and workshops will be recorded but only for the purposes of analysing the discussion; the recordings themselves will not be shared and will be deleted on July 31st 2021.
28.	**What arrangements have been put in place to ensure confidentiality and security of data gathered in the study? Will the data be stored in hard copy or electronically, and where will it be held?**
	The data gathered will take the form of written responses to surveys and video and audio recordings of the focus group and concept mapping workshop discussions. These will be synthesised into the iterating drafts of the Threshold Concepts. The survey data is entirely anonymous and is held within onlinesurveys.ac.uk, the focus group recordings, concept mapping workshops and overall synthesis work will be rendered anonymous and saved on secure university servers at the University of Bristol and protected by passwords held only by the researchers. The data will be retained until the 31st July 2021 when the project ceases and all outputs published. The data will then be deleted.
29.	**Has this proposal been seen by or submitted to another ethics committee?**
	No.

30.	Do any of the investigators have any actual or potential conflict of interest in this study?
	No.

31.	Is there any other relevant information you would like to make known to the committee?
	No.

32.	How will the data be made available at the end of the project? You must declare your level of access, see Data Access appendix
	Controlled.

33.	Have you read and understood the guidelines for completing this form (see last page)?
	Yes X No ☐

	Appendices
	Informed Consent
	Obtaining informed consent from parents does not obviate the need to obtain informed consent or assent from children participating in research. Assent means that the child shows some form of agreement to participate in the research without necessarily comprehending the nature of the research sufficiently to give full informed consent. Investigators working with infants should take special effort to explain the research to the parents and be especially sensitive to any indication of discomfort or avoidance in the infant. It is good practice to ask participants on the consent form to confirm their consent to keep and make use of the data they have contributed. This allows someone, who for example becomes unhappy about their participation in the research, to prevent their data being used. The researcher should keep signed copies of consent forms securely and separately from the research data. For a questionnaire study, the researchers should consider if the questionnaires can be returned anonymously, in which case a consent form may not be necessary since consent is implied by the subject choosing to participate in the study. Under these circumstances, an information sheet is still required.
	Data Access
	Research funders and publishers increasingly require researchers to find a way to provide access to their research data, even if that data initially includes personal information. The University of Bristol requires you to assign an expected access level to your research data, your selection will be checked and signed off by the Ethics Committee. If you intend to create multiple datasets with different anticipated access levels you should select the most restrictive access level you expect to use. The four access levels are: •Open – my data can be made openly available through a data repository •Registration required – my data should only be available to bona fide researchers, on request •Controlled – any access requests for my data should be referred to committee for review on a case-by-case basis •Closed – my data should not available for sharing If, during the course of your research, you believe that your nominated access level will no longer be appropriate you should inform your Faculty Ethics Officer. You must also ensure that you get the appropriate level of consent from participants at the start of the project to allow for onward use. If you need more information about this please see the guidance on sensitive data http://data.bris.ac.uk/research/storage-and-security/sensitive-data/ or contact data-bris@bristol.ac.uk Guidance on access levels Open – this level can be assigned where consent has been given by participants to make their anonymised data publicly available through a repository, in addition the risk assessment of re-identification of this anonymised data has been classed as low. These data sets can be made openly available through data repositories, including the Bristol Research Data Repository. Registration required – this level can be assigned where consent has been given by participants to make their anonymised data available to bona fide researchers on request, within the terms of participant consent and the risk assessment of re-identification of the anonymised data is low. If the data is deposited with the University of Bristol Research Data Repository requests will be facilitated by the Research Data Service. Controlled – this covers cases where historical consent for sharing is very limited and/or the risk assessment of re-identification is classed as medium to high. If the data is deposited with the University of Bristol Research Data Repository the Research Data Service will forward on requests to a Data Access Committee who will work with you as the PI to decide if/what data is appropriate to be made available. Closed – this covers data that is not available for sharing (except by regulators) because of ethical, IPR, prior exclusive agreements or other constraints. This should only be assigned if you have got prior agreement from the funder that they are willing to allow the data to be completely closed.

Before submitting this form, please refer to the checklist below.
(Do NOT include a copy of this checklist with your application)

Checklist

In assessing all applications, the Faculty Committee for Ethics will ask the following questions:

1. Do the likely benefits of the research outweigh the risks (if any) to the participants?

2. Are there possible risks to participants greater than they would normally encounter in their life outside research? If so, are adequate safeguards in place to minimise any harm?

3. Are there possible risks to investigators?

4. What degree of discomfort, distress or deception, if any, is foreseen?

5. Is the study adequately supervised and is the principal supervisor responsible for the project clearly identified, adequately qualified and experienced?

6. Are appropriate procedures (e.g. information sheet) in place for informing participants about the research study?

7. Are there proper procedures for obtaining consent from the participants or, where necessary, their parents or guardians?

8. Please attach (where appropriate)
   ➢ Recruitment adverts / messages / forms
   ➢ Information sheet / transcript
   ➢ Consent form
   ➢ Debriefing sheet / transcript
   ➢ Questionnaire
   ➢ Any other relevant material (e.g. an unpublished questionnaire enquiring about possibly sensitive topics or collecting personal data).

Links to useful guidelines concerning ethics of research involving human participants

ESRC Research Ethics Framework
http://www.esrc.ac.uk/ESRCInfoCentre/Images/ESRC_Re_Ethics_Frame_tcm6-11291.pdf#search='esrc%20research%20ethics%20framework

National Research Ethics Service (NRES)
http://www.nres.npsa.nhs.uk/

Medical Research Council Guidelines on Good Research Practice
http://www.mrc.ac.uk/pdf-good_research_practice.pdf