

Bader College Undergraduate Student Summer Research Fellowship (USSRF) Project 4 Description

Supervisors: Anna Taylor, Director of Academic Quality Assurance and Enhancement

& Isabelle Brent, Head of Student Success and Development

Project Title: Learning Theory Project

Project Abstract.

The Learning Theory Project brings together concepts from the psychological and educational study of independent learning. The key objective of the project is to explore how regular interaction with dogs in a training context. Combined with group and self-reflection, this improves students' meta-cognitive awareness of their own and other learning practices and enables them to take control of their own learning. Spanning several established areas of research, including personal development theory (Dweck, 2006; Nichol, 2010), learning theory as a discipline (APA Guidelines 2.0, 2013), and transformative pedagogy (Kolb, 1984; Gentry, 1990), this project follows the experiences of participants as they scaffold the learning environment of domestic dogs (*Canis familiaris*) in order to construct increasingly self-aware models of teaching and learning that can be applied across contexts. Moreover, we focus on the central role of failure as a learning experience.

The USSRF 2023 project will review and analyse the data collected so far, produce a report to situate the project's place in the existing literature, and provide recommendations for future practical implementations. The lead investigators are Dr Anna Taylor (D.Phil Psychology) and Dr Isabelle Brent, (D.Phil Education). Dr Taylor has previously published experimental research and written several book chapters on social cognition and inter-specific communication between humans and domestic animals (e.g., Taylor et al., 2014; 2016). Dr Brent is Bader College's Head of Student Success and Development and has developed and implemented an evaluative framework to connect the evaluation of transferable skills with student learning.

Bader College USSRF Application

The student most likely to enjoy and thrive within this project would demonstrate the following:

- Interests:
 - Learning and development; personal development
 - Innovative pedagogy, such as experiential learning, learning by doing, active learning strategies...
 - Dogs!
- Competencies:
 - Academic background in e.g., Psychology, Education, Health, Sociology
 - Understanding of research methods in Social Science or Science
 - Understanding of learning contexts (gained through e.g., mentoring/tutoring in academic or non-academic environments)

Aims and Outcomes.

By the end of the USSRF program in Summer 2023, we aim to have achieved the following objectives:

1. Analysis of existing data
 - Transcription and coding of interview data collected over two years
 - Review and qualitative analysis of participant reflections
 - Review of existing video taken within the project
2. Embed our findings within a theoretical framework incorporating the project themes
3. Update the Learning Theory Project, based on our findings

Expected outputs:

1. Scholarship: a cohesive dataset to be used as the foundation for publications relating to this project.
 - A secondary scholarship application is a contribution to the literature on models of using animals for learning in higher education
2. Application: Program outline for Learning theory Project 2023-24.
3. Practice: Recommendations for Bader College in its delivery of experiential learning in academic practice and in co-curricular frameworks.

USSRF Learning Outcomes and Skill Development.

By the end of this project, the student will have had opportunity to demonstrate the following skills, typically evaluated via a weekly research log unless otherwise stated. Both Drs Taylor and Brent will be supervising this project with Dr Brent primarily overseeing educational theory components and qualitative data methods and Dr Taylor overseeing behavioural theory components and science communication development. Both Drs Taylor and Brent will be available for the duration of the student's time at Bader College and weekly research team meetings will be held with all three collaborators.

Methodological

- Learn about the principles of qualitative data analysis (including transcription, coding, and analysis)
- Use relevant software to analyse textual and visual data
- Develop research search strategies to supplement the data analysis
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Communication Skills

- Contribute to project literature review
- Present research to date at Summer+ conference, if possible
- Synthesise project outputs in a set of recommendations

Professional Skills

- Work to a timeline to deliver project outputs
- Demonstrate collegiality via regular research team meetings

Timeline and Milestones.

This timeline is built on the assumption of a 20 hour/week workload. Hours can be done over 4 or 5 days by negotiation with the supervisors. Initial training will be closely supervised with more independent work expected once the student is comfortable with the expectations and methodologies.

Step 1: Analysis of existing data (informal videos taken during the project's active phase during termtime and participant interviews and written reflections) – these methodological components will be primarily supervised by Dr Brent

- Review of existing video taken within the project to be completed as an introductory activity within the first week, alongside other introductory meetings with both project supervisors (see previous section)
- Transcription to be completed by the 20th May 2023
- Coding to be completed by 10th June 2023
- Review and qualitative analysis of participant reflections to be done concurrently with the transcription and coding

If possible, student to present project update at Summer+ Conference.

Step 2: Embed our findings within a theoretical framework incorporating the project themes: to commence once transcription/coding is completed, with a draft due before the student leaves Bader College. Dr Taylor will supervise the literature search components of this stage and both supervisors will work with the student to help them develop their ideas.

Step 3: Update the Learning Theory Project with active recommendations that build on the current framework – to be completed by the end date of the project.

Bader College USSRF Application

Students interested in submitting an application for this project should complete the USSRF student application found on the Queen's USSRF website. Applications are due to Traci Allen by March 1st, 2023. See submission instructions posted in the Program Guidelines.