

Research In Action

Portfolio of Competencies

Reflection Log

The Research in Action (RIA) module was a very hands-on module that involved many obstacles, triumphs, and invaluable learning experiences. Under the guidance of our supervisor, Zoe, my teammates, and I chose a research title that well suited with the module's requirements and goals. The systematic literature search (SLS) phase demanded us to put in extra teamwork and perseverance as we navigated through a sea of scholarly articles from the university library to synthesize current research on our topic. We transitioned seamlessly into writing a research proposal, dividing up each section equally amongst ourselves. The gravity of this proposal's implications added a layer of significance to our efforts, despite our familiarity with proposal writing from previous research projects. Next, we navigated the labyrinth of ethical considerations, carefully completing the ethical approval form with a mixture of nervousness and anticipation. I also took on the duty of preparing the consent form and study information sheet. My teammate and I conducted a pilot study, which gave us valuable insights into the potential logistical challenges and areas for refinement. There was a tangible mix of excitement and anxiety in the air as we entered the phase of data collection.

Throughout the module, an array of emotions surged and flowed, shaping the path of our collective journey. During the SLS phase, my initial excitement and anticipation faded quickly because of the complexity of the task. Yet, amidst the chaos, there existed a sense of teamwork and shared support that helped resolve and quiet down the panic I was feeling. A strong combination of anxiety and determination got me through the intricacies of the ethical approval process, emphasizing the importance of our project. The conditional approval initially provoked a sense of doubt, yet the following attainment of full approval instilled a sense of validation and accomplishment. The pilot study and the data collection phase evoked a complex tapestry of

emotions, ranging from nervous anticipation to excitement. The reality of being the first group of Malaysian exchange students to complete data collection filled me with a crushing feeling of pride and validation, underscoring the magnitude of our achievement. In retrospect, the range of feelings and encounters has permanently shaped my perception of the research process and encouraged my personal development.

The module also offered a unique blend of challenges and opportunities, providing me with invaluable perspectives on the details of research design and execution. Our success was largely due to the group's ability to work together, which allowed for effective task distribution and the establishment of a positive atmosphere. According to Scarnati (2001), teamwork is a collaborative method that enables anyone to accomplish remarkable things. Each group member produces excellent results with very few corrections, which helped us progress faster towards data collection. However, the steep learning curve associated with the SLS presented its initial challenges, requiring the team's coordinated effort and determination to overcome. Despite the long process of identifying where we went wrong and the need to redo the entire SLS, we successfully completed it without any delays with extra effort. Similarly, navigating the ethical approval process demanded plenty of attention to detail and the ability to engage with complex ethical considerations. Despite these challenges, the module offered a rich environment for my academic growth, giving me essential knowledge and perspectives that go beyond the classroom. The successful completion of data collection stands as a testament to the effectiveness of teamwork, efficient time management, and our constant determination.

A combination of factors, including effective communication, adaptability, and a shared commitment to excellence, have contributed to my team's success. We have all worked together on previous assignments and have experience doing research papers, which has helped us progress

much faster in the module. The team's journey through the phases of forming, storming, norming and performing, as per Tuckman's (1965) model of group development, illustrates the dynamic character of group dynamics in collaborative pursuits. At first, there was a similar sense of excitement and expectation as we created our group and chose a research topic. But as we dug deeper into the intricate workings of the ethical approval procedure and the SLS, we ran into obstacles and conflicts reminiscent of the storming stage. We overcame these challenges by being open with each other and sharing a common commitment to our goals. Consequently, we transitioned into the norming stage, characterized by our cooperation and cohesiveness. In the end, our research study's effective execution reflects the performing stage, in which the team worked together to accomplish our goals.

Moreover, our experience is consistent with Vygotsky's social constructivism, which views learning as a cooperative process supported by social interaction and shared experiences (Powell & Kalina, 2009). As we used our combined knowledge and insights to navigate the complexities of the research process, my group's collaborative efforts produced a rich setting for knowledge production and skill development. We overcame individual constraints by actively interacting with one another and utilizing a variety of viewpoints, creating a collaborative learning environment that promoted growth and development.

The RIA module has been a life-changing experience that has helped me grow as a person academically especially as a researcher, by providing me with a nuanced understanding of the research process. I am committed to enhancing my study design and execution skills in the future by applying the knowledge I acquired from this intense experience. I am sure that by developing a collaborative, resilient, and adaptable mindset, I will be able to handle any challenges in future research.

After giving some thought to the RIA module, I have identified areas in which I still need to grow. Specifically, I intend to enhance my proficiency in conducting SLS by seeking additional guidance and resources, improve my understanding of ethical considerations in research through further engagement with relevant literature and educational opportunities, and explore prospects for further research involvement and engagement to deepen my understanding of research methodologies and practices. I am sure that by reflecting on my experiences and actively looking for ways to improve, I will be able to approach future research projects with more competence and confidence.

**COMPETENCY ONE:
APPLIED RESEARCH SKILLS –
RESEARCH PROPOSAL**

Research Proposal

Research proposal (1,000 words overall)

Student Name and University ID number:	[REDACTED]
Proposed Supervisor's name:	

Psychology Research Area (tick all that apply)

Social Psychology ☒	Developmental Psychology	Biological Psychology	Forensic Psychology
Health Psychology ☒	Individual Differences	Educational Psychology	Political Psychology
Cognitive Psychology	Clinical Psychology	Counselling Psychology	Occupational Psychology
<i>Other: indicate briefly (not included in word count)</i>			

Proposed Study Design (tick all that apply)

Quantitative ☒	Experimental ☒	Applied (with UWTSD students)	Online Questionnaire Survey
Qualitative	Quasi Experimental	Focus Groups	Online
Mixed Methods	Applied (with external organisation)	Interviews	Lab-based study
<i>If Applied, and involving an external organisation, please indicate your plans for gaining appropriate approvals from the organisation: (not included in the word count)</i>		<i>Other study design: indicate briefly (not included in word count)</i>	

My groupmates and I settled on this research title, after many suggestions were brought to the table. We felt that this title suited best in accordance with the module requirement.

Suggested Research Title/Area: (between 10-15 words and must reflect the essence of your proposed research question, study design and study population and should be more specific than a broad topic area).

The Effects of Physical Activity Intervention on Student Mental Well-being in UWTSD, Swansea: A Quantitative Study using the WEMWBS.

Background: 250 words

Why is your study important? What theory and empirical research evidence supports your research question? (Please provide a rationale for your study including a brief review of relevant psychological literature and theory and a minimum of five references).

Students' mental health is a vital concern since it has demonstrated the potential of physical activity interventions in a variety of population groups (Lock et al., 2018; Zuskov, 2021). Physical activity interventions affect students' mental health and aim to improve student outcomes. Self-Determination Theory (SDT) examines the probable mechanisms that underlie the relationship between physical activity and well-being. SDT holds that people have basic psychological needs, and engaging in behaviours that meet these needs is linked to improved physical and mental well-being (Lock et al., 2018). Studies have also shown correlations between leisure time physical activity and improved symptoms of anxiety and depression (Siefken et al., 2019), as well as enhanced mental health perception in cancer patients (Kim et al., 2020). Caregivers who stay physically active while looking after those with mental illnesses tend to experience better mental well-being (Zacharis et al., 2020). Despite the mounting evidence, further research is required to focus on these impacts in student populations. Establishing supportive and productive classrooms requires an understanding of how physical activity interventions can be customised to meet the specific requirements of students and enhance their mental health. Thus, the purpose of this research is to investigate how physical activity interventions can enhance the well-being of students at the University of Wales Trinity Saint David.

After dividing the work equally, I was tasked with completing the background of the study. Using the systematic literature search, I picked out five literatures to use as evidence for the background which supported the study's research question and related it to the study.

I produced the reference list in accordance with the American Psychological Association (APA) 7th edition.

Reference List: (Not included in word count)

- Kim, J., Kim, J., & Han, A. (2020). The impact of leisure time physical activity on mental health and health perception among people with cancer. *Health Promotion Perspectives*, 10(2), 116–122. <https://doi.org/10.34172/hpp.2020.19>
- Lock, M., Post, D., Dollman, J., & Parfitt, G. (2018). Development of a self-determination theory-based physical activity intervention for Aged Care Workers: Protocol for the activity for well-being program. *Frontiers in Public Health*, 6. <https://doi.org/10.3389/fpubh.2018.00341>
- Siefken, K., Junge, A., & Laemmle, L. (2019). How does sport affect mental health? an investigation into the relationship of leisure-time physical activity with depression and anxiety. *Human Movement*, 20(1), 62–74. <https://doi.org/10.5114/hm.2019.78539>
- Zuskov, K. (2021). Some beneficial psychological aspects of physical activity in nature – questions arising from the Narrative Review. *Health Problems of Civilization*. <https://doi.org/10.5114/hpc.2021.104859>
- Zacharis, T., Lyrakos, G., & Zisi, V. Z. (2020). Physical activity and mental health in caregivers of mental ill patients in Greece. *Journal of Human Sport and Exercise - 2020 - Spring Conferences of Sports Science*. <https://doi.org/10.14198/jhse.2020.15.proc3.36>

Please state the main research question(s) or hypotheses(s): (100 words max)

RQ:

1. How does engaging in physical activity intervention affect students' mental well-being?

Based on relevant and contemporary literature, it is well-documented that physical activity improves mental well-being (Siefken et al., 2019; Pressman et al., 2020; Kim et al., 2020). The study will novelly gauge the effectiveness of students engaging in physical activity intervention in their daily life on their mental well-being. By incorporating such physical activities into breaks during regular lectures, both accessibility and routine is effectively achieved. It is hypothesised that the intervention will encourage students to engage with simple physical activities consistently in daily life and that will improve students' mental well-being.

Reference List:

- Kim, J., Kim, J., & Han, A. (2020). The impact of leisure time physical activity on mental health and health perception among people with cancer. *Health Promotion Perspectives*, 10(2), 116-122. <https://doi.org/10.34172/hpp.2020.19>
- Pressman, S. D., Petrie, K. J., & Sivertsen, B. (2020). How strongly connected are positive affect and physical exercise? Results from a large general population study of young adults. *Clinical Psychology in Europe*, 2(4). <https://doi.org/10.32872/cpe.v2i4.3103>
- Siefken, K., Junge, A., & Laemmle, L. (2019). How does sport affect mental health? An investigation into the relationship of leisure-time physical activity with depression and anxiety. *Human Movement*, 20(1), 62-74. <https://doi.org/10.5114/hm.2019.78539>

Methodological Details (500 words)

Please summarise the key methodological approach and materials as appendices if you wish). You must include

- **Participants:** Participants will include undergraduates at UWTSD, Swansea who sign up using the department's Experimental Management System (EMS) in exchange for course credit. The study will target one participant group, reporting a questionnaire before their engagement in the physical activity intervention offered and after engaging in it. The study will require approximately 20 participants.
- **Design:** A quantitative experimental design. The independent variable will be the engagement of the students in the physical activities. The dependent variable will be the mental well-being of the

The methodology was discussed as a group. But the task of writing it down was done by two teammates. I then assisted in correcting any mistakes that was accidentally written.

students based on Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). WEMWBS consists of 14 questions measured in 5-scale response categories: satisfaction, affect, competence, relatedness and autonomy. The values obtained from these subscales are used to derive a single mean score. The mean score of each of the 2 sets of WEMWBS is compared to understand the perceived range of students' mental-wellbeing. Paired t-test is used to analyse the statistical difference between the two sets.

- **Materials:** Warwick-Edinburgh Mental Well-being scale, printed booklet (demographic questions, WEMWB scale x2, feedback form), pens, Youtube, empty room/exercise room, consent forms, supervisor
- **Procedure:**
 1. After a time and date is set for the study to take place, students from UWTSD will be recruited via EMS to participate in the study.
 2. Upon signing up, students will be given an introductory statement form and what they may expect from participating in the study.
 3. On the day of the study, students will be given an informed consent form and briefed through the purpose of the study and possible risks before signing the form.
 4. Printed booklets containing a demographic questionnaire, the WEMWB scale and the feedback form will be distributed for the participants to fill in the first two sections and then collected back.
 5. A short warm-up session of 5-minutes with the supervisor would be carried out to reduce risk of injury.
 6. Participants will be shown a 10-minute exercise video focused on stretching with the supervisor mirroring the exercises to follow along.
 7. Each stretch will be held for around 1 minute, with revisions for the physical capacity of the participants.
 8. Upon completing the session, there will be a 5-minute warm down session and debrief with the supervisor to ensure participants do not injure themselves after stretching.
 9. The distributed booklets will then be returned to participants to fill in the WEMWB scale post-exercise and the feedback form.
 10. Upon completing and returning the booklet, participants may leave in their own time.
 11. Mean scores of the WEMWBS pre and post intervention will be recorded.
 12. Statistics will be analysed using paired t-test via Statistical Package for the Social Sciences (SPSS).

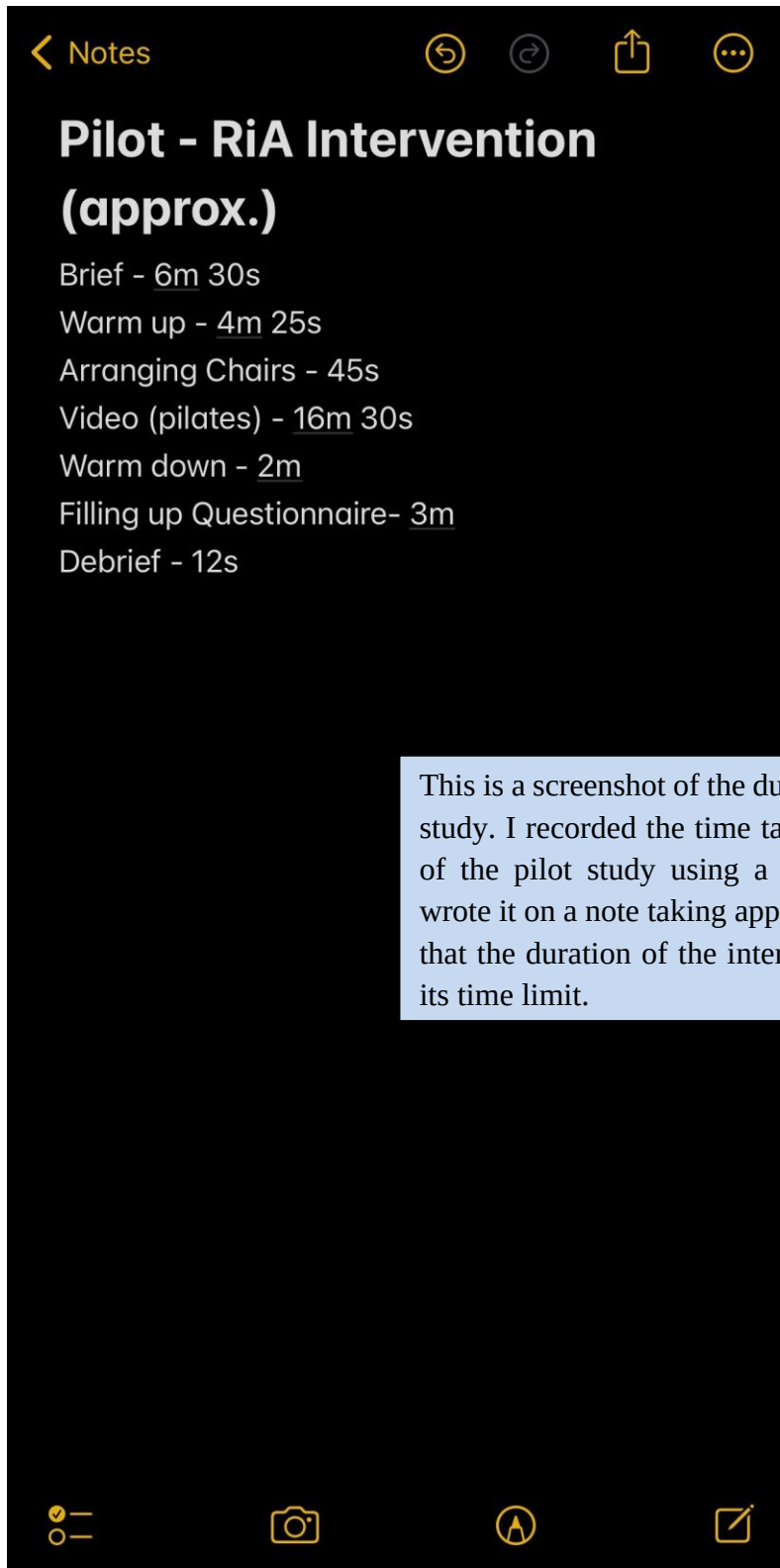
Key Ethical considerations (150 words)

In this section you are required to briefly outline any specific ethical considerations for your project. All projects will be expected to adhere to the BPS code of human research ethics, and you will need to submit a full ethics form which will document your specific processes for informed consent, debriefing,

and data protection. Here you need to briefly note additional or specific key ethical considerations for your particular project e.g. potential for distress or discomfort, any deception, research with vulnerable populations or sensitive topic areas, and briefly outline how you expect to manage these risks within your project.

Participants' information will be kept confidential as to comply with the BPS code of human research ethics unless they consent to otherwise. Contents of the printed booklet, specifically the WEMWBS scale, may contain sensitive information on the participants' well-being and mental health. Participants will be informed about these issues prior to consenting. Briefings will be held and cautionary measures will be put in place as to reduce injury or risk of injury towards the participants. As mentioned previously, each stretch will be held for one minute according to a participant's physical capacity so as not to harm their health. If any participant starts to feel uncomfortable during the program, they may choose to forgo the rest of the program thus making their participation void for the research. Supervisors will be there to assist any participant struggling with the program or to answer any question the participant may have.

**COMPETENCY TWO:
IDENTIFYING APPROPRIATE
REASEACH MATERIALS – PILOT
STUDY**



This is a screenshot of the duration of the pilot study. I recorded the time taken for each part of the pilot study using a phone timer and wrote it on a note taking app. This is to ensure that the duration of the intervention is within its time limit.

Questionnaire Form

Section A: Demographic Information

This is the demographic information section of the questionnaire booklet that was prepared by two other group members. I helped hand this out to the participants during the pilot study.

Age	☒ 18-21 years old ☐ 22-25 years old ☐ 26-29 years old ☐ 30 years old and above
Gender	☒ Female ☐ Male ☐ Non-Binary ☐ Other ☐ Prefer not to say
Course of study	Bsc in Psychology

The questionnaire was done by two other group members. The questionnaire was part of the questionnaire booklet and was handed out by me and another group member during the pilot study. This is the questionnaire form before the intervention.

Section B: Warwick-Edinburgh Mental Wellbeing Scale

Please circle the number that represents how you feel in general for each statement.

Statements	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future	1	2	3	4	5
I've been feeling useful	1	2	3	4	5
I've been feeling relaxed	1	2	3	4	5
I've been feeling interested in other people	1	2	3	4	5
I've had energy to spare	1	2	3	4	5
I've been dealing with problems well	1	2	3	4	5
I've been thinking clearly	1	2	3	4	5
I've been feeling good about myself	1	2	3	4	5
I've been feeling close to other people	1	2	3	4	5
I've been feeling confident	1	2	3	4	5
I've been able to make up my own mind about things	1	2	3	4	5
I've been feeling loved	1	2	3	4	5
I've been interested in new things	1	2	3	4	5
I've been feeling cheerful	1	2	3	4	5

This is the after intervention questionnaire form that was handed out during the pilot study.

Section C: Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) after intervention

Please circle the number that represents how you feel in general for each statement.

Statements	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future	1	2	3	4	5
I've been feeling useful	1	2	3	4	5
I've been feeling relaxed	1	2	3	4	5
I've been feeling interested in other people	1	2	3	4	5
I've had energy to spare	1	2	3	4	5
I've been dealing with problems well	1	2	3	4	5
I've been thinking clearly	1	2	3	4	5
I've been feeling good about myself	1	2	3	4	5
I've been feeling close to other people	1	2	3	4	5
I've been feeling confident	1	2	3	4	5
I've been able to make up my own mind about things	1	2	3	4	5
I've been feeling loved	1	2	3	4	5
I've been interested in new things	1	2	3	4	5
I've been feeling cheerful	1	2	3	4	5

Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

We are interested to know whether this type of exercise is beneficial and feasible to include during your lesson. Please write your response in the space below.

The feedback form was done by another group member. This form was also handed out during the pilot study that me and my groupmate conducted.

It's a great way 4 students to reenergize but it is a bit too long. Maybe a shorter exercise would suffice. Other than that, everything else is fine. Perhaps try considering a more light exercise like for example the Japanese morning workout. TQ! :)



**COMPETENCY THREE:
DATA COLLECTION – STUDY
INFORMATION SHEET &
CONSENT FORM**

Informed Consent Form

Participation in a Physical Activity Intervention

Introduction:

You are kindly requested to take part in a physical activity intervention. You will be asked to understand the purpose, procedures, potential risks, and benefits of the study before deciding whether or not to participate. Before signing this form, please read this form and do not hesitate to ask any inquiries you may have.

Purpose of the Study:

To study the effects of a physical activity intervention on mental well-being in Swansea using the Warwick-Edinburgh Mental Wellbeing Scale.

Procedures:

You are being asked to take part in a short exercise intervention. This involves a 16-minute exercise video featuring chair-based Pilates movements. A link to the trailer for the exercise video was provided on EMS for you to watch. You will be asked to complete a questionnaire before and after the intervention to measure your mental well-being and to collect some basic demographic information such as age and gender. A short warm-up session of 5-minutes with the researchers would be carried out to reduce risk of injury. You will be shown a 16-minute exercise video focused on stretching with the researchers mirroring the exercises to follow along. Each stretch will be held for around 1 minute, with revisions for the physical capacity of the participants. Upon completing the session, there will be a 5-minute warm down session and debriefing with the supervisor to ensure participants do not injure themselves after stretching.

Duration of Participation:

The intervention should last approximately 45 minutes including the warmups and warm downs.

Risks

As participants will be asked to partake in physical exercise, there could be a risk of injuries like muscle pulls & soreness. There is also a minor risk for emotional distress where participants may feel upset if they are unable to follow the exercises as demonstrated. Participants can decide at any point to stop participation. Participants will be encouraged to stay within their capabilities when presented with an exercise and move at their own pace and comfort.

Confidentiality:

All data gathered will be kept completely confidential. Manual materials will be securely stored in locked cabinets in the university lab. OneDrive will be used as a cloud storage to ensure encrypted password security. The use of data and records in the future will be governed by

I was tasked to write the study information sheet. I made the form so that it was easier to understand by the participants. I was aware that informed participant consent is important in any study (BPS, 2021). This form was handed to the participants at the beginning of the intervention so that the participants were aware of the purpose, procedures, and risks of the study.

common data use standards that safeguard both institution's and individual's privacy. No identifiable data will be collected so all data will be anonymous.

Voluntary Participation:

The decision to take part in this study is entirely voluntary. You can decide at any time to stop participation, this will have no impact on your studies, and you will still receive study credits.

Researchers:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Supervisor: Zoe Cooke (zoe.cooke@uwtsd.ac.uk)

Statement of Consent:

I have read this Informed Consent Form, I have obtained the chance to ask questions, and I have freely consented to taking part in this study at any moment without repercussions. I understand this in accordance with the Data Protection Act and the Data Protection Regulation (GDPR).

I wrote the statement of consent to make sure that I had the participant's consent. This is to ensure that participants have an informed choice about whether to participate in our study. This form was not collected by the researchers of the study.

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Please select each of the boxes below to confirm your consent to participate in this study:

- ☐ I have read and understood the information above.
- ☐ I am over 18 years of age.
 - ☐ I understand I can withdraw my participation at any time without penalty by closing the online browser and that partial data will not be used
 - ☐ I understand that my data may be used in an aggregated format only with data from other participants in future reports, articles, or presentations.
- ☐ I agree to take part in this study

X

Name:

Date:

Researcher Copy

Statement of Consent:

I have read this Informed Consent form and I understand the information provided. I have obtained the chance to ask questions and I have received answers to my questions. I've freely consent to taking part in this study, and I realise that I have the right to change my mind at any moment without repercussions. I understand that all data submitted by me will be stored in accordance with the Data Protection Act (2018), the UK's implementation of the General Data Protection Regulation (GDPR).

I created a researcher's copy of the statement of consent. These copies were collected by the researchers and were kept safely in locked cabinets in the psychology lab of UWTSD with only authorized access.

Please select each of the boxes below to confirm your consent to participate in this study:

- ☐ I have read and understood the information above.
- ☐ I am over 18 years of age.
 - ☐ I understand I can withdraw my participation at any time without penalty by closing the online browser and that partial data will not be used
 - ☐ I understand that my data may be used in an aggregated format only with data from other participants in future reports, articles, or presentations.
- ☐ I agree to take part in this study

X

Name:

Date:

References

Powell, K. C., & Kalina, C. J. (2009). Cognitive and Social Constructivism: Developing Tools for an Effective Classroom. *Education (Chula Vista)*, 130(2), 241-250.

Scarnati, J. T. (2001). On becoming a team player. *Team Performance Management: An International Journal*, 7(1/2), 5–10. <https://doi.org/10.1108/13527590110389501>

Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin*, 63(6), 384–399. <https://doi.org/10.1037/h0022100>

The British Psychological Society. (2021). BPS Code of Human Research Ethics. The British Psychological Society. <https://explore.bps.org.uk/content/report-guideline/bpsrep.2021.inf180>