Bournemouth University

Ref & Version: 1
Ethics ID: 68822
Date: 22/01/2026

Participant Information Sheet

The title of the research project

Evaluating AI Driven XR and Mobile Healthcare Simulation Using the DASEX Framework in an International Educational Context

Invitation to take part

You are being invited to take part in a research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Who is organising/funding the research?

The researcher is:

Name: David Dasa (PhD Researcher)

Bournemouth University, United Kingdom
Faculty of Media, Science and Technology

PhD is a match funded PhD by Bournemouth University (BU) and i3 simulations.

This study is supported with funding from the UK Department for Education via the Turing Scheme International Mobility Award.

The study is conducted in collaboration with Achievers University, Owo, Nigeria, where data collection takes place under academic supervision of Professor Frank B.O. Mojiminiyi, Faculty of Basic Medical Sciences, College of Medicine.

What is the purpose of the project?

This study aims to evaluate an AI driven healthcare training simulation using the DASEX framework, a structured tool for assessing clinical realism, adaptation, safety, engagement, teamwork, and explainability in simulation-based education.

The study builds on an earlier validation study conducted at Bournemouth University and applies the same simulation system and evaluation framework in a different educational and infrastructural context. The simulation is delivered using both extended reality headset and mobile phone formats.

Feedback will be gathered from healthcare learners immediately after the simulation session and again approximately three weeks later, where participants consent to follow up. This allows the study to explore both immediate learning experience and short-term transfer of learning.

By collecting feedback at these time points, the study will assess the perceived educational

value, usability, and feasibility of AI driven simulation across devices and contexts and further examine the applicability of the DASEX framework beyond the original UK setting.

Why have I been chosen?

If you have expressed interest in participating by contacting the researcher, thank you for your interest!

You have been invited to take part because you are enrolled in a healthcare related programme at the host institution and have experience of clinical or clinical training activities.

The study seeks feedback from adult healthcare students who can engage with a simulated clinical training scenario delivered using digital technology.

Please keep in mind the following information:

You may be able to take part if you meet all the following criteria.

- You are aged 18 years or over.
- You are currently enrolled in a healthcare related programme at the host institution.
- You are able to understand spoken and written English.
- You are able to use a virtual reality headset and a smartphone safely.

Reasons why you may not be able to participate:

- You experience severe motion sickness or discomfort when using immersive or screen-based technology.
- You have a known history of epilepsy or seizure disorder triggered by screens.
- You have a medical condition that would make participation using a headset or smartphone unsafe, based on your own judgement.

Do I have to take part?

No, participation is entirely voluntary. You may withdraw at any time without giving a reason, and your decision will not affect your studies in any way.

Can I change my mind about taking part?

Yes, you can stop participating in study activities at any time and without giving a reason.

You can withdraw from participation at any time and without giving a reason, you can retain this information sheet for your reference, simply decline to sign the participant agreement form.

If I change my mind, what happens to my information?

After you decide to withdraw from the study, we will not collect any further information from or about you.

As regards to the information we have already collected before this point, your rights to access, change or move that information are limited. This is because we need to manage your information in specific ways in order for the research to be reliable and accurate. Further explanation about this is in the Personal Information section below.

What would taking part involve?

1. **Orientation (10–15 minutes)** – Introduction to VR equipment and study aims.
2. **Simulation (15–20 minutes)** – You will take part in one or more short simulated clinical training scenarios delivered using a virtual reality headset and or a smartphone.
3. **Immediate Feedback (15 minutes)** – You will complete:
    a. The DASEX checklist
    b. System Usability Scale (SUS)
    c. A short open-ended questionnaire
4. **Follow-Up (Optional, 3 weeks later)** – Participants who consent to follow-up will receive a short email reminder and link to the 3-week survey. The survey will ask about confidence, skill retention, and application of learning in practice. Responses will remain anonymous.

The total time commitment for the initial session is approximately 45–60 minutes.

Clinical scenario used in the simulation:

The simulation scenario focuses on the emergency management of severe anaphylaxis, following the UK Resuscitation Council Advanced Life Support (ALS) and ABCDE guidelines. Participants will assess and manage a rapidly deteriorating patient presenting with airway compromise and hypotension. Key learning objectives include rapid recognition of anaphylaxis, administration of intramuscular adrenaline, oxygen therapy, intravenous fluid resuscitation, and effective communication using SBAR.

The scenario includes adaptive AI-driven patient responses and team communication prompts designed to evaluate realism, decision-making, and teamwork. The AI algorithms adjust scenario difficulty and feedback in real time based on participant actions.

Ethical considerations:

Some participants may experience mild stress when managing emergency scenarios. Support will be available throughout, and participants may pause or withdraw at any time without consequence. No audio or video recordings will be made. The scenario content is aligned with existing resuscitation training

frameworks.

Will I be reimbursed for taking part?

Participants will receive a ₦5,000 token in appreciation for their time commitments.

What are the advantages and possible disadvantages or risks of taking part?

Some people may experience mild motion sickness from VR. Breaks will be available at any point. A facilitator will be present to provide technical and practical support.

Wellbeing Support

If you feel upset or anxious after taking part, you can visit the Achievers University campus clinic for in-person help or speak to a member of the academic or clinical teaching staff if you require immediate assistance.

What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

We will collect:

- Demographics: (age range, gender, programme of study, level of study, approximate length of clinical experience)
- DASEX checklist responses.
- SUS usability scores.
- Written feedback on the simulation.
- Follow-up survey responses.

No identifiable personal data will be linked to your questionnaire responses.

Will I be recorded, and how will the recorded media be used?

There are no identifiable photographs or images produced as part of this study.

How will my information be managed?

Bournemouth University (BU) is the organisation with overall responsibility for this study and the Data Controller of your personal information, which means that we are responsible for looking after your information and using it appropriately. Research is a task that we perform in the public interest, as part of our core function as a university.

Undertaking this research study involves collecting and/or generating information about you. We manage research data strictly in accordance with:

- Ethical requirements and current data protection laws. These control use of information about identifiable individuals, but do not apply to anonymous research data: "anonymous" means that we have either removed or not

collected any pieces of data or links to other data which identify a specific person as the subject or source of a research result.

- BU's Research Participant Privacy Notice sets out more information about how we fulfil our responsibilities as a data controller and about your rights as an individual under the data protection legislation. We ask you to read this Notice so that you can fully understand the basis on which we will process your personal information.
- Research data will be used only for the purposes of the study or related uses identified in the Privacy Notice or this Information Sheet. To safeguard your rights in relation to your personal information, we will use the minimum personally identifiable information possible and control access to that data as described below.

Publication

You will not be able to be identified in any external reports or publications about the research without your specific consent.

Research results will be published in an academic journal if the opportunity becomes available.

Security and access controls

BU will hold the information we collect about you in hard copy in a secure location and on a BU password protected secure network where held electronically.

Personal information which has not been anonymised will be accessed and used only by appropriate, authorised individuals and when this is necessary for the purposes of the research or another purpose identified in the Privacy Notice. This may include giving access to BU staff or others responsible for monitoring and/or audit of the study, who need to ensure that the research is complying with applicable regulations.

Sharing your personal information with third parties

None

Further use of your information

The information collected about you may be used in an anonymous form to support other research projects in the future and access to it in this form will not be restricted. It will not be possible for you to be identified from this data.

Keeping your information if you withdraw from the study

If you withdraw from active participation in the study we will keep information which we have already collected from or about you, if this has on-going relevance or value to the study. This may include your personal identifiable information. As explained above, your legal rights to access, change, delete or move this information are limited as we need to manage your information in specific ways in order for the research to be reliable and accurate. However, if you have concerns about how this will affect you personally, you can raise these with the research team when you withdraw from the study.

You can find out more about your rights in relation to your data and how to raise queries or complaints in our Privacy Notice.

Retention of research data

Project governance documentation, including copies of signed **participant agreements**: we keep this documentation for a long period after completion of the research, so that we have records of how we conducted the research and who took part. The only personal information in this documentation will be your name and signature, and we will not be able to link this to any anonymised research results.

Research results:

As described above, during the course of the study we will anonymise the information we have collected information about you as an individual. This means that we will not hold your personal information in identifiable form after we have completed the research activities.

You can find more specific information about retention periods for personal information in our Privacy Notice.

We keep anonymised research data indefinitely, so that it can be used for other research as described above.

Contact for further information

If you have any questions or would like further information, please contact:

Researcher: David Dasa Email: ddasa@bournemouth.ac.uk

Supervisor: Prof Wen Tang Email:wtang@bournemouth.ac.uk

Co-Supervisor: Dr Michele Board – mboard@bournemouth.ac.uk

Co-Supervisor: Dr Ursula Rolfe – urolfe@bournemouth.ac.uk

In case of complaints

Any concerns about the study should be directed to Prof Scott Wright

Deputy Dean for Research & Professional Practice Faculty of Media, Science and Technology, Bournemouth University by email to researchgovernance@bournemouth.ac.uk.

Finally

If you decide to take part, you will be given a copy of the information sheet and a signed participant agreement form to keep.

Thank you for considering taking part in this research project

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