Posttraining Questionnaire

**Candidate Number** (as listed in your posttraining email):

**Which training method were you randomized to?**

HoloLens □

Expert trainer □

**Section 1. Understanding THAs**

*Please rate on a scale of 1 to 10 to what extent you agree with the following statements (1 = completely disagree, 10 = completely agree)*

1. After training (including viewing the Clinical Vignettes and Course Information Videos) **I understand the indications and role of hip arthroplasty and the biomechanical factors resulting in failure.**

1 2 3 4 5 6 7 8 9 10

1. After training (including viewing the Clinical Vignettes and Course Information Videos) **I understand the concepts around patient-specific orientation of the acetabular cup.**

1 2 3 4 5 6 7 8 9 10

1. After training (including viewing the Clinical Vignettes and Course Information Videos) **I understand how to use anatomic landmarks and planes to orientate the acetabular cup.**

1 2 3 4 5 6 7 8 9 10



**Section 2. THA Orientation Task**

1. The **synthetic** **hip model** is an **accurate representation** of performing real hip arthroplasty.

1 2 3 4 5 6 7 8 9 10

1. The Acetabular Implant **Introducer** is an **accurate representation** of that used in real hip THA.

1 2 3 4 5 6 7 8 9 10

1. The hip model and orientation tasks would be a **useful** platform for training as part of preoperative rehearsal for THA.

1 2 3 4 5 6 7 8 9 10



**Section 3**

*Please rate on a scale of 1 to 10 to what extent you agree with the following statements (1 = completely disagree, 10 = completely agree)*

1. The Augmented Reality Platform for Implant Orientation was an **enjoyable** method of learning.

1 2 3 4 5 6 7 8 9 10

1. The AR visual feedback was a useful method to achieve **the target implant orientation.**

1 2 3 4 5 6 7 8 9 10

1. The AR platform’s visual feedback was **nauseating** because of a lag/latency.

1 2 3 4 5 6 7 8 9 10

1. The AR platform was a useful tool to develop my **visuospatial motor skills.**

1 2 3 4 5 6 7 8 9 10

1. The AR Platform was useful to develop my **understanding** of hip arthroplasty.

1 2 3 4 5 6 7 8 9 10

1. The AR Platform was **comfortable and usable.**

1 2 3 4 5 6 7 8 9 10

1. I prefer the AR platform for **learning** about hip implant orientation compared with expert training.

Yes No

1. I prefer the AR platform for **training and practicing** hip implant orientation compared with expert training.

Yes No



**Section 4:** My **preferred method** to learn about and training my skills in orientating implants for THA would be:

1. Augmented reality headsets only
2. Augmented reality headsets in your own time with limited expert training
3. Expert tuition only



**Section 5:** **Augmented Reality as a future technology to enhance learning, training, and surgical outcomes**

*Please rate on a scale of 1 to 10 to what extent you agree with the following statements (1 = completely disagree, 10 = completely agree)*

In your opinion, AR platforms with headsets are an ideal platform:

1) For developing **simulation procedures and operations**

1 2 3 4 5 6 7 8 9 10

2) For developing and rehearsing medical/surgical **decision-making skills**

1 2 3 4 5 6 7 8 9 10

3) For **interacting** with other medical professionals/patients or to convey information

1 2 3 4 5 6 7 8 9 10

4) For **visualizing** difficult concepts such as anatomy for medical trainees/students

1 2 3 4 5 6 7 8 9 10

5) For **visualizing** and interacting with **digital imaging** such as radiographs, CT, and MRI

1 2 3 4 5 6 7 8 9 10

6) As an **assistive tool** to enable surgeons to safely orient anatomy and perform patient-specific planned surgery **in real life**

1 2 3 4 5 6 7 8 9 10