**Memo for changes to Project 140: 24675**

**1. The study procedure only discusses the use of the AR app (B:5), but then goes on to discuss using a paper representation. Please clarify.**

The experiment involves comparing how effectively the participant can visualise and identify certain objects and features between using the AR Model and using traditional paper drawings which are currently the most commonly used medium in design meetings. The paper drawings are provided in the PIS as an embedded pdf.

**2. Please clarify what hololens is.**

The Hololens is a type of Augmented reality hardware that is used as a pair of goggles and projects virtual elements onto the real vision of the user. We will not be using the Hololens for this experiment but will be making comparisons between last years project who did use Hololens.

**3. If students elect to participate in the UoA digital smart labs then their participation will not be confidential. Please address how you will manage this.**

There are no students who will participate in the UoA digital labs, all experiments are online, and therefore remain confidential.

**4. If students choose to participate online, how will they get access to the paper representation and how will that data e.g. annotations be given to the researchers.**

Participants can print the document if they are able to, however, they can also annotate the document using computer software. The annotations on the drawings are not required by the researchers, as the purpose of annotating is to get the participant to think about how easy and clear the annotations are compared with doing the same thing using the AR app. The participant is then asked in the questionnaire which method would be easier to communicate and understand.

**5. Outline in the PIS what each of the tasks 1-3 will briefly involve so participants can be informed.**

Task 1 will involve finding where certain objects or features of the house model do or do not match the given criteria. The number of criteria found within 5 minutes will be counted for one medium. Then another five minutes will be given to the participant to identify additional criteria agreements or disagreements using the other medium (Paper or AR).

Task 2 requires the participant to highlight and the delete windows of the house on both the AR model and the paper model.

Task 3 then requires the participant to describe what they like and what they don’t like about the kitchen of the house model, with both the AR model and the paper drawings.

**6. Please check for spelling and grammar on all public facing documentation.**

Changes have been made.