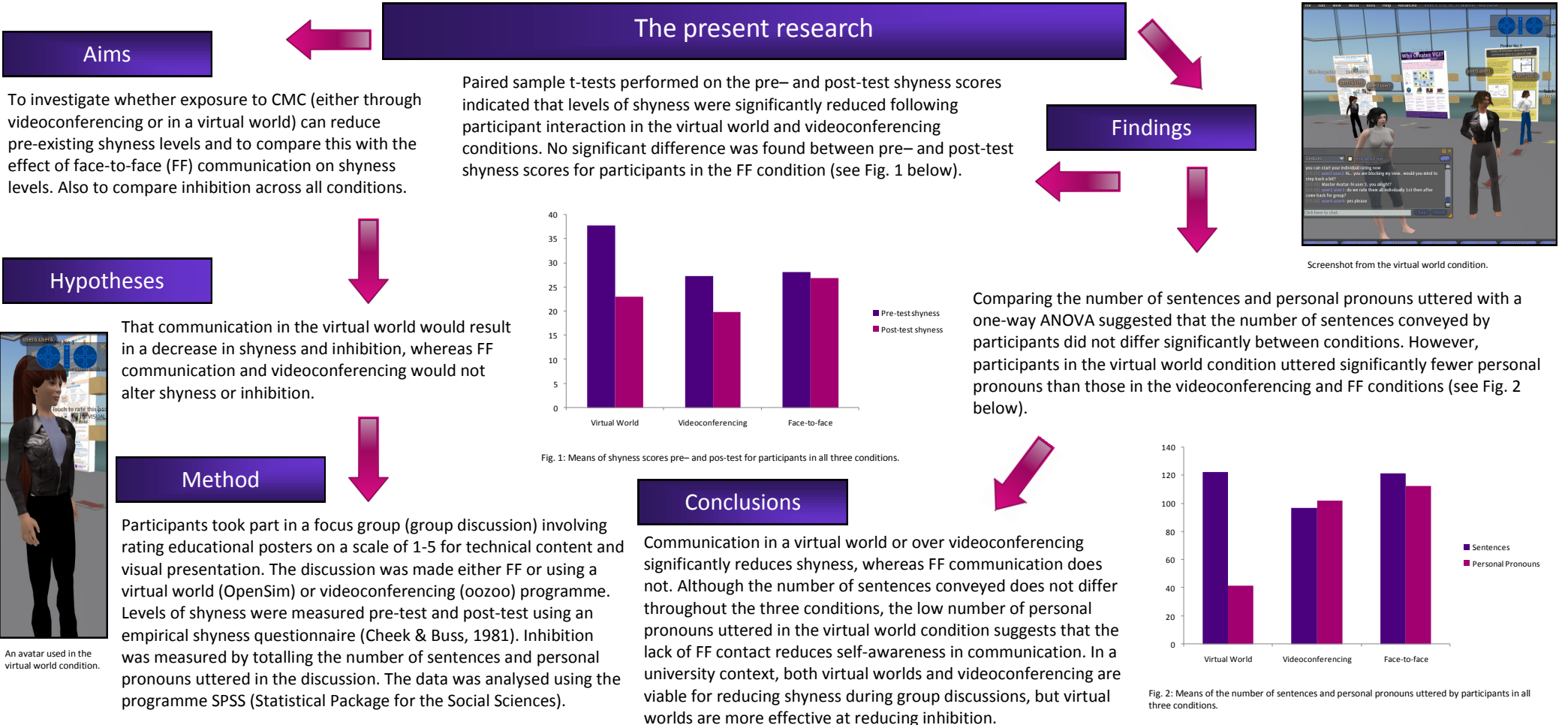


Background information

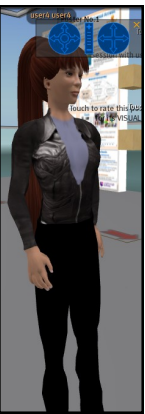
Previous research suggests that text-based computer-mediated communication (CMC) can reduce shyness and inhibition during human-human interactions. This is significant in a university context in helping shy individuals gain the optimum educational experience from group discussions during seminars and tutorials.



Aims

To investigate whether exposure to CMC (either through videoconferencing or in a virtual world) can reduce pre-existing shyness levels and to compare this with the effect of face-to-face (FF) communication on shyness levels. Also to compare inhibition across all conditions.

Hypotheses



An avatar used in the virtual world condition.

That communication in the virtual world would result in a decrease in shyness and inhibition, whereas FF communication and videoconferencing would not alter shyness or inhibition.

Method

Participants took part in a focus group (group discussion) involving rating educational posters on a scale of 1-5 for technical content and visual presentation. The discussion was made either FF or using a virtual world (OpenSim) or videoconferencing (oozoo) programme. Levels of shyness were measured pre-test and post-test using an empirical shyness questionnaire (Cheek & Buss, 1981). Inhibition was measured by totalling the number of sentences and personal pronouns uttered in the discussion. The data was analysed using the programme SPSS (Statistical Package for the Social Sciences).

The present research

Paired sample t-tests performed on the pre- and post-test shyness scores indicated that levels of shyness were significantly reduced following participant interaction in the virtual world and videoconferencing conditions. No significant difference was found between pre- and post-test shyness scores for participants in the FF condition (see Fig. 1 below).

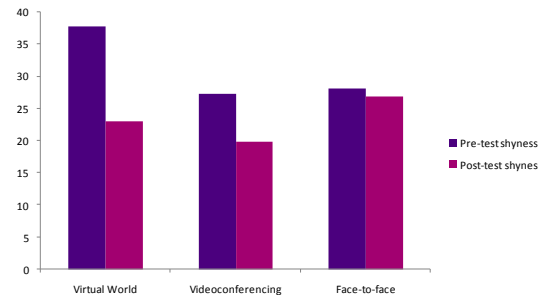


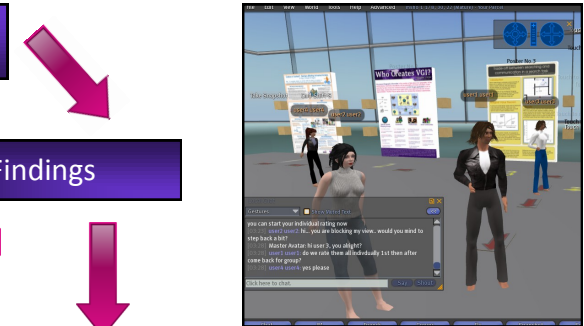
Fig. 1: Means of shyness scores pre- and post-test for participants in all three conditions.

Conclusions

Communication in a virtual world or over videoconferencing significantly reduces shyness, whereas FF communication does not. Although the number of sentences conveyed does not differ throughout the three conditions, the low number of personal pronouns uttered in the virtual world condition suggests that the lack of FF contact reduces self-awareness in communication. In a university context, both virtual worlds and videoconferencing are viable for reducing shyness during group discussions, but virtual worlds are more effective at reducing inhibition.

Findings

Comparing the number of sentences and personal pronouns uttered with a one-way ANOVA suggested that the number of sentences conveyed by participants did not differ significantly between conditions. However, participants in the virtual world condition uttered significantly fewer personal pronouns than those in the videoconferencing and FF conditions (see Fig. 2 below).



Screenshot from the virtual world condition.

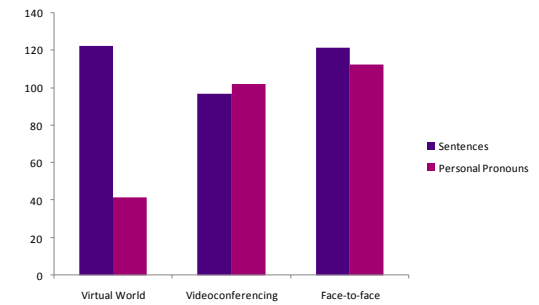


Fig. 2: Means of the number of sentences and personal pronouns uttered by participants in all three conditions.