ABSTRACT
• Large touch displays offer the promise to enhance group work.
• Such displays can provide learners with interactive and alternative ways to work with others.
• This can help facilitate participation, mutual awareness and maintain interest among learners.
• We deployed a multi tabletop classroom and a multi vertical display learning environment, to study how such devices could be used to effectively support small-group work.

APPROACH
• We choose group ideation as the activity within the technology enhanced classroom setups.
• This consisted of (1) coming up with ideas; (2) categorisation and discussion and (3) selection of a best idea for presentation back in the classroom – in response to design challenges.
• Multiple sources of evidence were captured: the number of ideas generated, the characteristic behaviour of people within the group, levels of interest, the configuration of the learning space, and the quality of the ideas.

KEY RESULTS
• Students created more ideas when using both tabletops and vertical displays, compared with a conventional classroom with pens and index cards.
• Top ideas came equally from each setting.
• Students perceived that both technology-enhanced classrooms enabled them to participate more.
• Students perceived that both technology-enhanced classrooms enhanced their interest, compared with the index cards.
• For mutual awareness, students found the tabletop was better for face-to-face interaction and that vertical displays were better for scanning the group’s whole set of ideas.

CONCLUSIONS
• The work points to the potential benefits of exploring vertical displays for classroom group-work, given the access to technology and installation in many schools and universities.