

Individual versus group reasoning: A comparison study using a keypad support system

Petco Tsvetinov, David Abercrombie and Hung Do

School of Information Systems
Queensland University of Technology

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The study investigates and contrasts individual decision making and group reasoning (groupthink) under various multiple choice assessment scenarios among students enrolled in an undergraduate academic course. 'Groupthink' has previously been referred to as a mode of thinking that people engage in when they are deeply involved in a cohesive group and the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action. Various examples of such decision making might include:

- the group fails to explore all alternatives
- wrong or dubious assumptions made
- excluding alternative answers that 'do not fit the picture'.

The pervasive dynamics of groupthink may sometimes lead to wrong decisions, thus the study focuses on the possible effects of that on team work in an academic environment.

A keypad-based system and Turning Point software have been used for monitoring the problem solving quality in an educational setting in a first year Information Systems unit. Students were asked to individually answer multiple-choice questions, and then they were given the opportunity to discuss their choices within their group and vote again for the right answer. Both votes were anonymous, and only statistical data was recorded.

The aim of the study was to establish whether groupthink improves the quality of decision making. The results showed a significant shift in opinion following the group discussions in both directions: towards correct and incorrect choices. Overall, the average score did not, however, improve from first to second poll.

Some of the possible factors explaining the results are:

- groups sometimes tend to suffer from their own *bounded rationality*
- the inclination of group members to reassure the others that their interpretation of the questions is correct
- in group discussions, information and arguments might favour a 'majority view'.

From an educational point of view the sessions turned out to be useful since they did encourage the students to share their views and understanding and to adopt a more critical and reflective approach to learning. Furthermore, the participants had the opportunity to discuss the answers immediately after making their choice and identify where further reading was required.

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