

# Can People Meaningfully Learn Actual Voting Powers?: Cognitive Ability and Feedback Information\*

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## Abstract

In this experiment, subjects were asked to choose one of two weighted voting games many times and their payoffs were stochastically determined by a payoff-generating function that was hidden from subjects. Withholding feedback information about their payoffs immediately after their choice promoted meaningful learning by university students who had significantly higher cognitive ability scores measured by Raven's test than do non-student general public. Feedback information about subjects' payoffs immediately after their choice might confuse their inference on the relationship between nominal vote apportionments and their actual payoffs so that they took the win-stay-lose-shift strategy, which made it difficult for subjects to deeply infer the underlying structure of weighted voting. It is inferred that meaningful learning by non-student general public would not be observed according to our experimental results.

**Keywords:** meaningful learning, weighted voting, cognitive ability, bandit experiment, win-stay-lose-shift strategy

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