Objective: To investigate the impact of the anchoring bias and debiasing interventions with professional software engineers. We hypothesized that debiasing strategies would reduce锚定偏差 and that professional software engineers can be debiased with minimal cognitive effort.

METHOD
Ethical approval was given prior to conducting the study which involved participants attending a workshop and completing an estimation task. The task was based on a series of experiments using the estimation task with 295 participants from industry (Jørgensen & Grimstad, 2012, Estimation Task 1). Five experiments were conducted with software engineers (n=118) in two locations. At each location, participants attended the workshop aimed at raising awareness of the impact of a range of cognitive biases. Immediately following the workshop, the participants at each location were randomly divided into two groups (high versus low anchor) and asked to estimate their own productivity for a familiar task. The low anchor was "Do you believe your coding productivity was less than 50 LOC/hr on your last project?" The high anchor was "Do you believe your coding productivity was less than 200 LOC/hr on your last project?" Participants recorded "yes" or "no" and their actual estimate of productivity in LOC per hour. The anchor group were asked to estimate the productivity with their own anchor. The difference between the estimates was statistically significant, p<0.001. The impact of the anchor was significantly reduced following the intervention, with a high anchor significantly reducing the estimate in the intervention group, r(116) = -0.64, p<0.001, but not in the control group, r(116) = -0.02, p=0.73.

RESULTS
Seven experiments were conducted with a total of 410 participants. Of these, 202 were in the high anchor group; 208 were in the low anchor group. All participants completed an estimation task (see Table 2). The impact of the anchor is statistically significant (p<0.001) and the effect size is large (eta-squared=0.247). The intervention, a workshop, was given to 126 of the participants. The impact of the intervention on estimation is significant with a large effect (Table 3 and 4) and Figure 1 estimated productivity by anchor value. Figure 2 estimated productivity by workshop.

CONCLUSIONS
Seven experiments were conducted with a total of 410 participants. Of these, 208 in the high anchor group; 202 were in the low anchor group. The intervention had a significant effect on reducing the anchor effect. However, the data using a 2-way ANOVA model is able to account for approximately 40% of the variance in productivity. The error term still represents 60% of the variance in the estimates. This suggests that there are many other factors potentially influencing individual differences, variation in use of different development tools and so on that impact productivity and tasks differences.