For α = 0.05, at power = 0.8, δ = 2.8

δ	α = 0.05
2.6	0.74
2.7	0.77
2.8	0.8
2.9	0.83
3	0.85
3.1	0.87

So, if we know that δ = 2.80, and we know that d = 0.33

$$\delta = d\sqrt{n}$$

$$n = \left(\frac{\delta}{d}\right)^2 = \left(\frac{2.80}{0.33}\right)^2 = 8.48^2$$

$$= 71.91$$

Rounding up, that gives us 72 participants.