

Game 1 of Kneeland's ring game

Player 1				Player 2				Player 3				Player 4			
	d	e	f		h	i	j		k	l	m		a	b	c
a	8	20	12	d	14	18	4	h	20	14	8	k	12	16	14
b	0	8	16	e	20	8	14	i	16	2	18	l	8	12	10
c	18	12	6	f	0	16	18	j	0	16	16	m	6	10	8

Suppose the level 0 player is expected to randomize using probability $15/62$ for action 1, $\frac{28}{62}$ for action 2 and $\frac{19}{62}$ for action 3. Assuming all subjects are either level 0, level 1, level 2 or level 3, are there equilibrium outcomes for this game in which a level 1 subject uses a random strategy? If so describe them, if not explain why not. Are there equilibrium outcomes in which a level 2 subject uses a random strategy. If so describe them, if not explain why not.