

Tilburg University MC exam item analysis example

Willem Slegers

April 12th, 2017

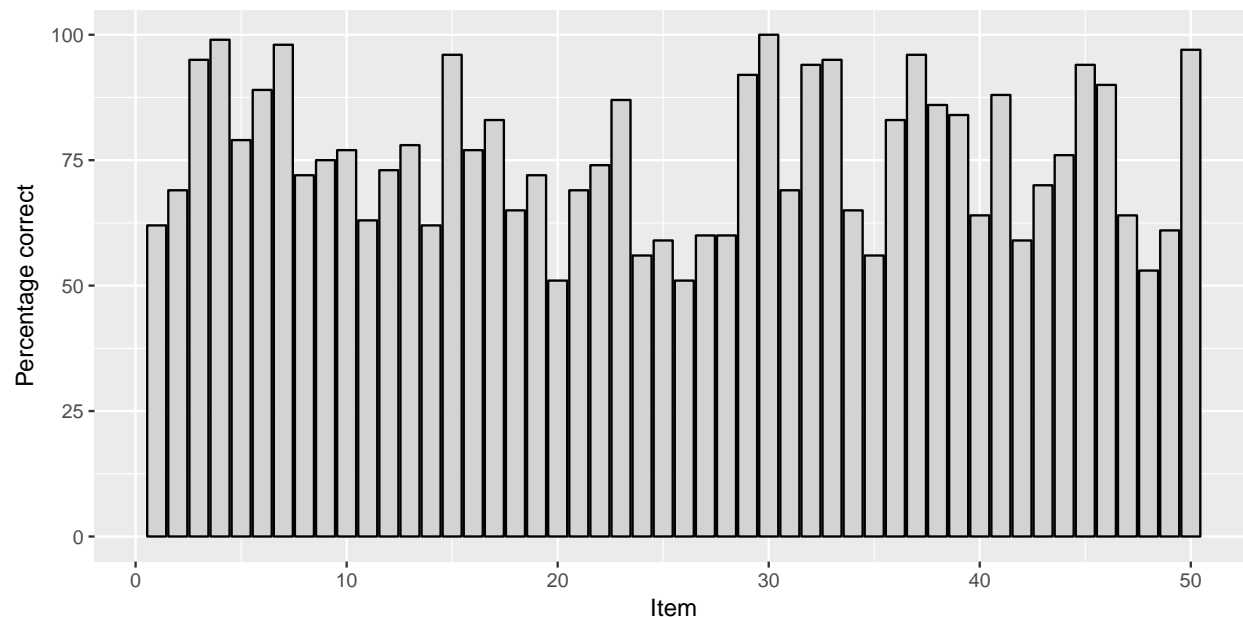
Exam description

The exam consisted of 50 questions with 4 possible answers, of which 1 is the correct answer.

Reliability

The exam has a reliability of 0.84.

Difficulty of each item



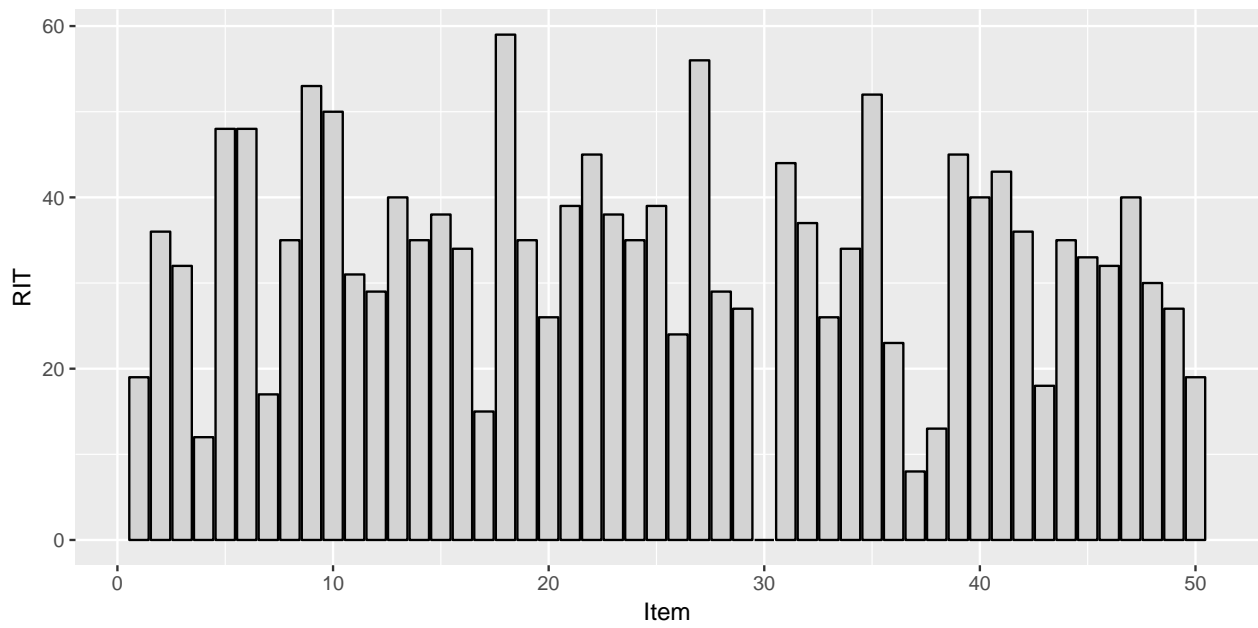
Questions that were answered *correctly* by all students: 30.

Questions that were answered *incorrectly* by all students: None.

Item analysis

item	key	1	2	3	4	r	n	mean	sd
1	4	0.13	0.15	0.10	0.62	19	140	62	49
2	1	0.69	0.12	0.04	0.16	36	140	69	47
3	2	0.01	0.95	0.04	0.00	32	140	95	22
4	4	0.00	0.00	0.01	0.99	12	140	99	12
5	1	0.79	0.15	0.01	0.05	48	140	79	41
6	2	0.07	0.89	0.02	0.02	48	140	89	32
7	3	0.00	0.01	0.98	0.01	17	140	98	15
8	3	0.04	0.09	0.72	0.15	35	140	72	45
9	1	0.75	0.06	0.12	0.06	53	140	75	43
10	3	0.06	0.06	0.77	0.11	50	140	77	42
11	3	0.04	0.01	0.63	0.32	31	140	63	48
12	2	0.00	0.73	0.21	0.06	29	140	73	45
13	3	0.01	0.01	0.78	0.20	40	140	78	42
14	2	0.29	0.62	0.07	0.01	35	140	62	49
15	2	0.01	0.96	0.01	0.01	38	140	96	19
16	4	0.09	0.07	0.06	0.77	34	140	77	42
17	4	0.16	0.01	0.00	0.83	15	140	83	38
18	4	0.18	0.12	0.05	0.65	59	140	65	48
19	1	0.72	0.09	0.15	0.04	35	140	72	45
20	1	0.51	0.34	0.02	0.13	26	140	51	50
21	1	0.69	0.25	0.04	0.02	39	140	69	46
22	2	0.06	0.74	0.11	0.10	45	140	74	44
23	2	0.06	0.87	0.01	0.05	38	140	87	34
24	1	0.56	0.14	0.00	0.31	35	140	56	50
25	4	0.37	0.02	0.01	0.59	39	140	59	49
26	2	0.08	0.51	0.35	0.06	24	140	51	50
27	2	0.04	0.60	0.01	0.35	56	140	60	49
28	1	0.60	0.13	0.23	0.04	29	140	60	49
29	4	0.06	0.01	0.01	0.92	27	140	92	27
30	2	0.00	1.00	0.00	0.00	0	140	100	0
31	3	0.24	0.00	0.69	0.07	44	140	69	47
32	3	0.01	0.04	0.94	0.01	37	140	94	23
33	4	0.00	0.01	0.04	0.95	26	140	95	22
34	1	0.65	0.09	0.18	0.08	34	140	65	48
35	4	0.23	0.17	0.04	0.56	52	140	56	50
36	4	0.07	0.01	0.09	0.83	23	140	83	38
37	1	0.96	0.02	0.01	0.01	8	140	96	20
38	4	0.00	0.09	0.04	0.86	13	140	86	34
39	3	0.06	0.01	0.84	0.08	45	140	84	37
40	4	0.03	0.07	0.26	0.64	40	140	64	48
41	2	0.04	0.88	0.07	0.01	43	140	88	33
42	3	0.31	0.07	0.59	0.02	36	140	59	49
43	2	0.13	0.70	0.04	0.14	18	140	70	46
44	1	0.76	0.09	0.15	0.01	35	140	76	43
45	2	0.04	0.94	0.00	0.01	33	140	94	23
46	3	0.04	0.06	0.90	0.01	32	140	90	30
47	3	0.21	0.15	0.64	0.01	40	140	64	48
48	4	0.04	0.36	0.07	0.53	30	140	53	50
49	3	0.15	0.07	0.61	0.17	27	140	61	49
50	3	0.00	0.00	0.97	0.03	19	140	97	17

RIT scores



Questions with a negative RIT score: None.

Questions with a RIT score between 0 and 10: 30, 37.

Grades

The average grade is 6.8 ($SD = 1.75$). The pass rate is 78%.

