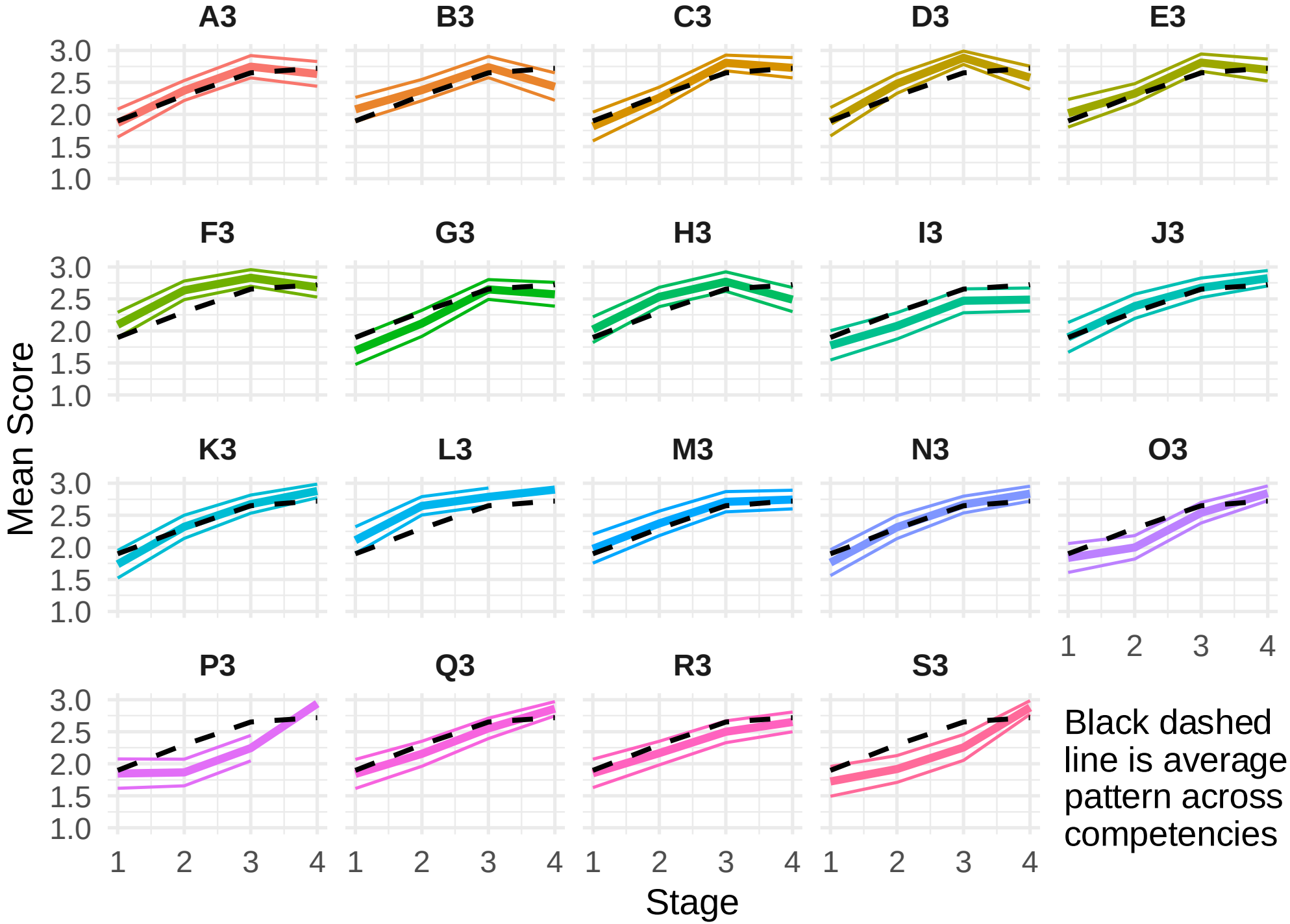
Linearity

Assume linear effect across stages 1, 2, 3 & 4 where managerial is stage 4

Survey score as a function of career stage



Black dashed line is average pattern across competencies

Correlations

For each competency, get correlation of survey level with stage

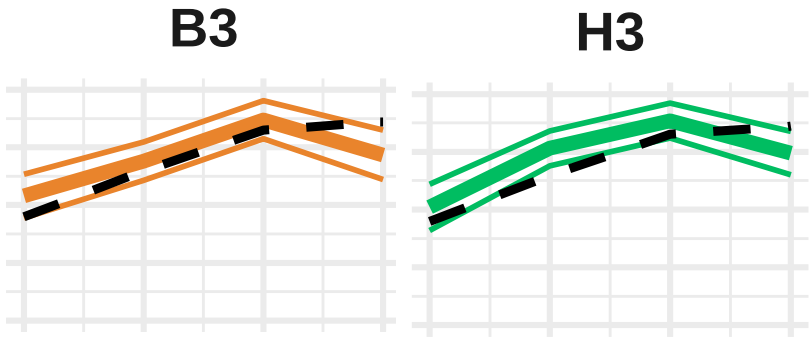
Assess those with high (r>0.51) or low (r<0.30) association

Least correlated => needed less at managerial stage

More correlated => career stage progress

Competency	r	adj_p
B3	0.23	0.00093
H3	0.28	6.45E-05
F3	0.35	3.16E-07
I3	0.35	5.77E-07
A3	0.40	4.32E-09
D3	0.40	4.32E-09
M3	0.40	4.32E-09
E3	0.41	1.96E-09
R3	0.41	4.46E-09
G3	0.44	2.96E-10
L3	0.44	5.01E-11
J3	0.46	6.73E-12
C3	0.50	2.76E-13
Q3	0.52	2.76E-13
S3	0.53	9.49E-13
O3	0.54	2.06E-14
P3	0.54	7.86E-13
N3	0.56	1.60E-16
K3	0.57	1.27E-17

Correlations

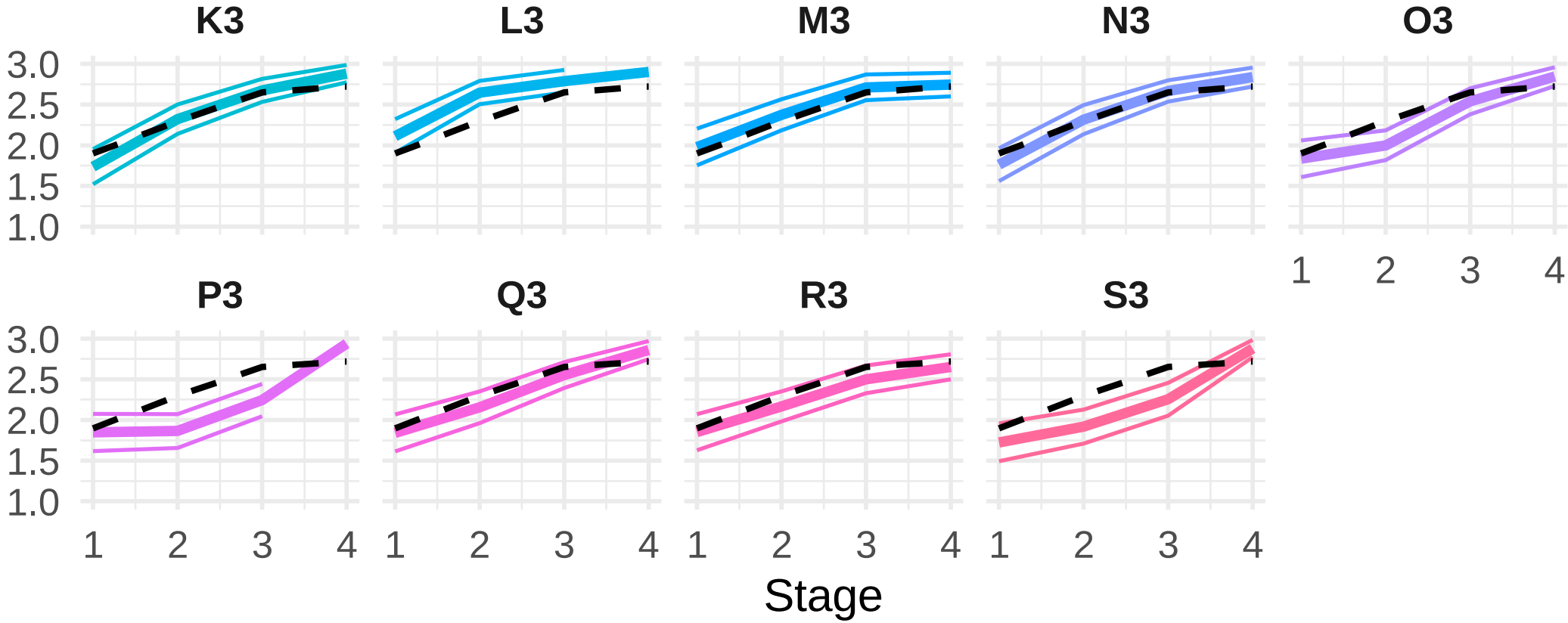


Least correlated => needed less at managerial stage:

B3 = Prepare life science data for computational analysis

H3 = Make appropriate and efficient use of scripting & programming languages

More correlate
Q3 - New C
S3 - correla
O3 - correla
P3 - correla
N3 - New Id
K3 - Commu



Ranks

Ranking of competencies' mean survey scores across levels

Big change at managerial

eg P3 - New People management focusing on staff – is low for levels 2 & 3 but is top for level 4

eg D3 - Use data science methods suitable for the size and complexity of the data – is top for Level 3 but is 15th for Level 4