

Additional File 6: Algorithm for Determining TOP Factor Level

To determine “Data Citation” TOP Factor level

Level 3	1e=Yes
Level 2	1e=No
Level 1	1d=No
Level 0	1a=No OR 1c=No

To determine “Code Citation” TOP Factor level

Level 3	1h=Yes
Level 2	1h=No
Level 1	1g=No
Level 0	1b=No 1f=No

To determine “Data Transparency (newly collected data)” TOP Factor level

Level 3	2a=Yes AND 4a=Yes
Level 2	2a=Yes
Level 1	2b=Yes
Level 0	2b=No

To determine “Analytic Methods (code) transparency” TOP Factor level

Level 3	3a=Yes AND 4a=Yes
Level 2	3a=Yes
Level 1	3b=Yes
Level 0	3b=No

To determine “Research Materials Transparency” TOP Factor level

Level 3	5e=Yes
Level 2	5e=No
Level 1	5b=No OR 5c=No OR 5d=No
Level 0	5a=No

To determine “Design and Analysis Transparency” TOP Factor level

Level 3	6c=Yes
Level 2	6c=No
Level 1	6b=No
Level 0	6a=No

To determine “Registration of Studies” TOP Factor level

Level 3	7c=Yes
Level 2	7c=No
Level 1	7e=No
Level 0	7a=No OR 7b=No

To determine “Registration of Analysis Plans” TOP Factor level

Level 3	8d=Yes
Level 2	8d=No
Level 1	8c=No
Level 0	8a=No OR 8b=No

To determine “Replication” TOP Factor level

Level 3	9b=Both original and replication studies OR 9b=Replication studies only OR 9b=Unclear AND 9e=Yes
Level 2	IF NOT Level 3, THEN 9d=Both original and replication studies OR 9d=Replication studies only OR 9d=Unclear AND 9e=Yes
Level 1	IF NOT Level 2, THEN 9e=Yes
Level 0	IF NOT Level 1, THEN Level 0

To determine “Registered Reports & Publication BiasPublication bias” TOP Factor level

Level 3	9b=Both original and replication studies OR 9b=Original studies only OR 9b=Unclear
Level 2	IF NOT Level 3, THEN 9d=Both original and replication studies OR 9d=Original studies only OR 9d=Unclear
Level 1	IF NOT Level 2, THEN 9f=Yes
Level 0	IF NOT Level 1, THEN Level 0

To determine “Open Science Badges” TOP Factor level

Level 3	Not Applicable
Level 2	IF Journal awards all 3 open science badges
Level 1	IF Journal awards 1 or 2 open science badges
Level 0	IF Journal awards no science badges