

Use an en dash first...

Minion Pro font:

Cat–Dog ← use an en dash first
A– B ← the em dash is messed up!
1–2

Palatino:

Cat–Dog] use an en dash first [oh oh, what's up with the arrow?!]
A—B] the em dash is fine
1–2_____

Times New Roman:

Cat–Dog ← use an en dash first
A—B ← the em dash is fine
1–2