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Assumptions: Seats are facing towards the start of the lettering (i.e. facing A)

There are only 9 seats available.

Model: Let students from the University of Adelaide, University of South Australia, and Flinders University be represented by A, S, and F, respectively.

Let the faculties the students are from, Health, Law, and Engineering, be represented by H, L, and E, respectively.

The following is a possible arrangement of the students:

AH	S L	FE
FL	AE	SH
SE	FH	AL

From the diagram above, we can see that AE and SL are part of a set with FH, meaning that they are always seated together either in the same row or the same column. They cannot be separated, as no one else would be eligible to seat with the other 2 students if one of them were to leave.

Solution: There is a $^1/_2$ chance that AE and SL are seated in the same row rather than column.

There are 6 possible permutations of AE, SL, and FH, 2 of which have FH seated between AE and SL, and 2 of which have AE seated to the left of SL. This leaves 2 scenarios out of 6 where AE is seated to the immediate right of SL, or $^1/_3$. Thus, the probability of AE being seated to the immediate right of SL is $^1/_2 \times {}^1/_3 = {}^1/_6$.

Discussion: It is important to assume that the students are seated facing towards A, so that the right of the Law student from the University of South Australia can be ascertained accurately. Furthermore, if the room has more than 9 seats, there will be many more permutations, such that the model will fail.