# A  Supplemental Material

| training | English | French | Chinese |
|---|---|---|---|
| **Span-Based** | | | |
| policy gradient | 10 | 10 | 10 |
| likelihood+explore | 5 | 2 | 2 |
| SMM+explore | 5 | 5 | 10 |
| **Top-Down** | | | |
| policy gradient | 5 | 2 | 10 |
| likelihood+explore | 2 | 5 | 2 |
| SMM+explore | 5 | 5 | 5 |
| **RNNG Discriminative, Size 128** | | | |
| policy gradient | 10 | 10 | 10 |
| likelihood+explore | 2 | 5 | 10 |
| SMM+explore | 2 | 2 | 2 |
| **RNNG Discriminative, Size 256** | | | |
| policy gradient | 10 | 10 | 10 |
| likelihood+explore | 2 | 2 | 2 |
| **In-Order** | | | |
| policy gradient | 10 | 10 | 10 |

Table 2: Number of candidates $k$ (including the gold tree for the sentence) used per sentence for each exploration technique.