Segalowitz (2010) distinguishes three types of fluency for second language (L2) learners: cognitive fluency (the efficiency of a speaker’s planning process); utterance fluency (acoustic measures of speech); and perceptual fluency (inferences about cognitive fluency based on the perception of the different components of utterance fluency). A central question in L2 fluency research is the extent to which a connection exists between cognitive fluency and utterance fluency, in order to understand how efficiently learners can plan and produce speech (e.g., Segalowitz & Freed, 2004). One approach for understanding learners’ cognitive fluency is to study working memory (WM), which is the combination of attentional resources necessary to process and store a learner’s metalinguistic insights into an L2. Previous research suggests a positive relationship between high WM and L2 development (Kormos & Trebits, 2011), especially for study abroad learners (e.g., Sunderman & Kroll, 2009).

We collected data from 40 English-speaking L2 learners of Spanish who participated in a 6-week study abroad in Spain. All learners completed four WM tasks and a video retell at the beginning and end of their experience abroad. The WM tasks were: operation span task (Turner & Engle, 1989); reading span task (Daneman & Carpenter, 1980); running span task (Broadway & Engle, 2010); and symmetry span task (Unsworth & Engle, 2008). For the video retells analysis, we calculated speed, breakdown, and repair fluency at each time, based on Skehan (2003). Preliminary findings show positive correlations between operation span and speed fluency (rate of speech), negative correlations between running span and measures of breakdown fluency (silent pauses over 200ms), and no significant correlations based on the other WM tasks. Our results therefore support the notion that WM resources represent a cognitive factor that affects utterance fluency, although the effect is not consistent between all measures of WM and utterance fluency.

Keywords: L2 Spanish, oral fluency, study abroad, working memory.