Title of Project:
Age and Knowledge of Morphosyntax in English as an Additional Language: Grammatical Judgment and Error Correction

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Project Summary

Research on age and second language (L2) development has mainly been motivated by the Critical Period Hypothesis (CPH), which postulates that language acquisition becomes extremely difficult after the onset of puberty. Numerous studies have explored effects of age of exposure (AoE) on second language development; however, their findings remain inconclusive. Research in second language (SL) contexts generally supports the “younger is better” theory; however, exceptions exist (c.f., Bialystok & Hakuta, 1994). On the other hand, studies that investigate the rate of learning a language (i.e., how fast learners acquire language) and those studies conducted in foreign language (FL) settings favor late starters over early beginners. To advance our understanding of the effects of AoE on L2 development, this study explored how exposure to English as a medium of instruction (EMI) at different academic levels (i.e., elementary, high school) affects learners’ grammatical knowledge as assessed on two tasks: (1) a grammaticality judgment task (GJT) and (2) an editing task, which required participants to correct morphosyntactic errors. An editing task was included to examine if participant’s performance on the GJT matches their performance on the editing task. GJTs are widely used in L2 research. A meta-analysis Qureshi (2016) found that 20 out of twenty six studies that investigated age effects on second language acquisition (L2A) used some type of GJT. Results of GJTs, however, can be simply intuition based and may not mirror the exact nature of L2 learners’ language ability.
GJT's also limit our understanding of learner’s true grammatical ability. For example, in a GJT task, a learner is restricted to identify a sentence either as correct or incorrect. Their choices are dichotomous and they do not have the option to provide alternative corrections. In an editing task, on the other hand, the same error may be corrected in multiple ways. For example, the following sentence “The biggest problem facing Africans today is the *continue* threat of wars” may be corrected in several ways. Some possible corrections include:

(a) The biggest problem facing Africans today is the *continuing* threat of wars.
(b) The biggest problem facing Africans today is the *continued* threat of wars.
(c) The biggest problem facing Africans today is the *continuous* threat of wars.

In this study, ‘early’ and ‘late’ learners were those participants first exposed to EMI in grades 1 and 11, respectively. They were all Third Language (L3) learners of English. Specifically, the study explored the following research questions:

1) To what extent do early-L3-learners (EL3Ls) differ from late-L3-learners (LL3Ls) in their
   a) judgment of grammaticality, and
   b) editing/correcting morphosyntactic errors in a written passage?

2) To what extent does L3 learners’ knowledge vary
   c) across morphosyntactic features between and within groups, and
   d) across task types (i.e., GJT and editing task)?

Three hundred and thirty five undergraduate and graduate students from two universities in Pakistan voluntarily participated in the research. Results of the group comparisons showed no statistically significant differences between early and late learners on the GJT; however, on the editing task, a modest but significant difference was observed between the two groups, with late learners scoring higher.

On individual morphosyntactic features in the GJT, a significant difference was observed between the two groups on past tense and third person singular. The effect sizes supported an edge for late learners. In contrast to the GJT, on the editing task all morphosyntactic features (a total of eight features) except adverb suffix, present progressive, and past tense showed a significant difference ($p < .05$), again favoring late learners. In terms of task difficulty, both groups attained higher scores on the GJT and lower scores on the editing task. Overall, results showed that early learners did not have an edge over late learners in their morphosyntactic proficiency in this English as an additional language context. These findings are consistent with other studies conducted in similar contexts (e.g., Al-Thubaiti, 2010 in Saudi Arabia; Larson-Hall, 2008 in Japan; Muñoz, 2006, 2011 in Catalonia (Spain); Pfenninger, 2011, for Switzerland; Unsworth et al., 2012 for the Netherlands).

Because this dissertation examined effects of exposure to EMI at two different academic levels (i.e., elementary and high schools), findings of the study have implications for language-in-education policies in Pakistan, and perhaps elsewhere, with similar contexts. Early learners in
the current study did not achieve higher scores on either the GJT or the editing task. This was despite the fact that they were exposed to EMI for approximately 19,200 hours as compared to late learners who received English instruction for roughly 7,320 hours only. This outcome is consistent with findings of other studies in FL contexts where early learners did not outperform late learners on a narrative task even when they were exposed to the target language for various lengths of time, for example 200, 416, and 720 hours in Álvarez (2006); on grammar and composition tasks after 564 hours in Cenoz (2002); on a GJT after 4.5 years in Larson-Hall, and a general proficiency test (Oxford Placement Test) after 2400 hours in Muñoz (2011).

There is a widely held belief that “younger is better,” which is true for second language (SL) contexts, where learners are exposed to a target language both formally and informally. But the preponderance of evidence suggests the case to be different for FL contexts where a similar exposure to the target language is missing outside the classroom. Hence, in FL contexts, introducing FL programs at an earlier age is a misapplication of L2 research (Spada, 2015). As an implication of the findings of the current study, governments that plan to introduce a foreign language as a medium of instruction (MOI) might consider practical reality of their contexts – late starters can attain better grammatical proficiency in English as a target language.
References


