Although Arabic has been extensively investigated from a formal, structural perspective, very little is known about its acquisition in either typically or atypically developing children. To fill this gap, we conducted a longitudinal study investigating morpho-syntactic growth and general development in Child Emirati Arabic. Six typically developing Emirati children were video-recorded for half an hour, approximately every two weeks, over a period of two years. The recordings were transcribed and annotated using the CHAT system of the CHILDES project, yielding a corpus of 16,183 utterances (48,848 word tokens). We used the set of rules for utterance segmentation developed for English (Brown, 1973) and morphologically segmented these utterances adapting rules previously used in Hebrew (Dromi and Berman 1982) and Gulf Arabic (Shaalan and Khater 2006). After constructing a mini morphological grammar of the data, we used the Computerised Language Analysis (CLAN) software to calculate three indices of language development, Mean Length of Utterance in morphemes and words (MLUm and MLUw) and utterance per turn counts (UoT), in addition to two indices of lexical diversity, type-token-ratio (TTR) and vocd (an index of vocabulary diversity).

A series of Spearman two-tailed correlation tests were used to assess the relationship between child age and the target developmental indices. Firstly, the correlation between age and MLUm is highly significant (s(112)= .343, p<0.01, see Scattergram 1). Specifically, the relation between these two variables is curvilinear in that MLUm growth is higher in earlier stages but slows down to non-significant levels at the 3.5 morphemes per utterance mark. This is consistent with findings in other languages showing that MLUm becomes less closely associated with grammatical growth as the child language proficiency develops (Brown, 1973; Miller and Chapman, 1981). Secondly, we found a similar but slightly weaker correlation between age and MLUw (s(112)= .288, <0.01). It is worth also noting that the correlation between MLUw and MLUm is extremely high (s(112)= .958, <0.01) (see similar results in Hickey (1991) for Irish, Arlman-Rupp et al (1976) for Dutch, and more recently Shaalan and Khater (2006) for Gulf Arabic). Thirdly, we found a high correlation between age and UoT counts (s(112)= .617, <0.01, Scattergram 2), indicating that as the children get older they hold the floor for longer periods of time.

As for the analysis of the relation between age and lexical diversity, our analysis produced mixed results. The correlation between age and TTR was not significant but the one between age and vocd counts was (s(112)= .549, <0.01). This is not surprising since TTR counts have been consistently shown to be affected by variation in the size of language samples (see Malvern and Richards, 1997). The value of vocd, on the other hand, is calculated by averaging TTR counts of random samples of tokens from each text, and therefore does not seem to be influenced by the length of the language sample (but see McCarthy and Jarvis 2007 for arguments against this).

Besides providing a new data point in the body of knowledge about language growth and development in general, the present results show that language acquisition displays the same developmental patterns regardless of the language-specific formal properties, e.g., nonlinear word structure, of the language involved.