Syntactic complexity in a cross-cultural E-mail exchange

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A R T I C L E I N F O

A B S T R A C T

The primary purpose of this study was to investigate changes in syntactic complexity in L2 learners' e-mails in a cross-cultural virtual exchange. Learners of German at an American university participated in a twelve-week e-mail exchange with learners of English at a German high school. Syntactic complexity was measured multidimensionally at the beginning and at the end of the exchange in the American students' emails. The results showed that students wrote with statistically significantly more global and subordination complexity in their later emails. The qualitative analysis of the e-mail data revealed that request for provision of feedback and writing to an authentic audience are two main factors impacting L2 writing in an e-mail project that evolve out of students' ability to establish a friendly context for the exchange. The findings from the study suggest that computer-mediated communication projects may increase students' motivation and interest for L2 writing, leading to improvements in syntactic complexity.

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1. Introduction

Developing the ability to communicate in a foreign language and becoming interculturally competent are primary goals of foreign language education in the 21st century (MLA Ad Hoc Committee on Foreign Languages, 2007). To achieve these goals, languages should "be taught and learned in the service of 'real-world' communication" (Byrnes, 2001, p. 160). Tele-collaboration makes this kind of real-world learning possible by allowing students to develop their language skills in authentic communication with native speakers (Thorne, 2006).

One of the most popular types of telecollaboration is an e-mail exchange. Much research has explored the suitability of e-mails in the language classroom and many studies focus on students' evaluations and self-perceived language gains, often summarizing positive effects of these exchanges on student motivation, language and cultural awareness (Absalom & Pais Marden, 2004; J. J. Chen & Yang, 2014; Dunne, 2014; Mahfouz, 2010; Van Handle & Corl, 1998; Vinagre, 2005). Studies have also investigated the effects of e-mail exchanges on different language skills and suggested that they can help students improve their L2 proficiency (Fotos, 2004). Studies have shown positive effects of e-mail exchanges on students' vocabulary knowledge (Kabata & Edasawa, 2011; Sasaki & Takeuchi, 2010; Stockwell & Harrington, 2003), especially idiomatic expressions (John & Cash, 1995), reading skills (Taki & Ramazani, 2011), writing accuracy (Stockwell & Levy, 2001), pragmatic competence (Belz & Kinginger, 2003), oral skills (Payne & Whitney, 2002; Satar & Özdener, 2008), and academic literacy (Cheng, 2010). Research has shown that e-mail exchanges can promote negotiation of meaning between learners as well as focus on form thus facilitating second language learning (Knight, 2005; Vinagre & Munoz, 2011). Explicit instruction in how to

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negotiate for meaning in e-mail may be necessary to help students benefit from this type of learning (Kitade, 2006). The type of language learning through e-mail interaction may, however, depend on students' L2 proficiency (Kabata & Edasawa, 2011).

Very few studies have investigated the linguistic characteristics and affordances of e-mail writing. Instead, many studies make general claims about the benefits of e-mail exchanges on students' writing skills or use only survey data to analyze students' perceptions of their own language gains. The present study aims to fill a gap in literature by investigating L2 learners' use of syntactic complexity in a cross-cultural e-mail project. The primary research question for this study was aimed at exploring syntactic complexity in L2 students' e-mails and possible changes over the course of a twelve-week cross-cultural asynchronous virtual exchange. Secondly, the study attempted to identify factors which impacted an increase of students' use of syntactic complexity in their e-mails.

Measuring syntactic complexity is important because language development "entails, among other processes, the growth of an L2 learner's syntactic repertoire and her or his ability to use that repertoire appropriately in a variety of situations" (Ortega, 2003, p. 492). Thus, measuring syntactic complexity can be useful in determining the "effects of a pedagogical intervention on the development of grammar, writing ability, or both" (Ortega, 2003, p. 492). The ability to use more sophisticated syntactic structures in a foreign language is an indicator for foreign language development (Ortega, 2012) and has therefore been selected as the focus for this study. Syntactic complexity was selected over other developmental measures such as lexical diversity because the researcher wanted to investigate whether the medium e-mail lends itself to fostering the development of syntactic complexity.

2. Literature review

This study is situated in and supported by the pushed output theory (Swain & Lapkin, 1995; Swain, 1985) and the interaction hypothesis (Long, 1981, 1983, 1996). According to the pushed output theory, language learning can take place through producing language (Swain, 1985). When using the L2, learners may become aware of their own linguistic problems; this may "'push' learners to modify their output" which may bring out new or improved linguistic forms by triggering "cognitive processes that are involved in second language learning" (Swain & Lapkin, 1995, p. 371). Collaborative activities may be best in fostering output and thus second language learning (Swain, 1993) because in collaborative dialogue learners have to make themselves understood by trying out different structures (Swain & Lapkin, 1998).

The interaction hypothesis claims that interaction between learners and more proficient speakers or other learners is an important site for language learning, especially through negotiation of meaning (Long & Robinson, 1998). Negative feedback may help to facilitate L2 learning (Long, 1996). Both hypotheses underline that comprehensible input (Krashen, 1980) alone cannot account for second language learning, but that language learning takes place through output modifications (Swain, 2005) and interactional adjustments (Long, 1996) prompted by the need to communicate meaning.

The present study focuses on the use of syntactic complexity in communication between language learners as a measure of language development. Syntactic complexity can be narrowly defined as "the ability to produce writing that shows how ideas and large chunks of information are represented with the use of subordination and embedded subordinate clauses" (Sotillo, 2000, p. 84), or more broadly as "the range of forms that surface in language production and the degree of sophistication of such forms" (Ortega, 2003, p. 492). Studies have shown that syntactic complexity in L2 writing increases over time and it can be used to trace L2 writing development (Kim, 1998; Lu, 2011; Vyatkina, 2013), even though it cannot be assumed that this development is steady (Larsen-Freeman, 2009) or linear due to strong individual differences (Pallotti, 2009; Vyatkina, 2013). Nonetheless, certain syntactic complexity features have been identified to improve from one instructional level to the next (Byrnes, 2009) and linear increases have been identified for example for amount of subordination used (Vyatkina, 2012).

Syntactic complexity measures are a valuable research tool as they can be utilized to recognize the development of L2 writing skills over time (Bulté & Housen, 2014). A synthesis of previous research led to the conclusion that while a year of college instruction may be necessary in order to identify substantial changes in L2 syntactic complexity, studies have also revealed small changes in syntactic complexity in 2–3 months projects (Ortega, 2003). Some studies suggest that even short time frames such as an intensive four-week English language course (Mazgutova & Kormos, 2015) or an academic L2 writing course (Bulté & Housen, 2014) can help students develop aspects of their syntactic complexity.

Research on writing in the foreign language classroom suggests that writing may support overall L2 development (Williams, 2012). Studies have investigated effects of pre-task planning, task complexity, writing development, and the role of feedback, among other aspects of L2 writing. It was concluded that pre-task planning may positively impact fluency but not lexical or grammatical complexity (Johnson, Mercado, & Acevedo, 2012). There are contrasting results about the relationship between task complexity and complexity, accuracy, and fluency (CAF) in L2 writing. Some studies found no effect of task complexity on accuracy (Kormos, 2011; Salimi, Dadaspour, & Asadollahfam, 2011) or insignificant decreases in accuracy (Ruiz-Funes, 2015), while others revealed that more complex tasks led to increased accuracy (Ghanbarzadeh & Gholami, 2014; Kuiken & Vedder, 2007) and lexical complexity (Frear & Bitchener, 2015; Ong & Zhang, 2010) but not to increases in syntactic complexity (Frear & Bitchener, 2015; Ghanbarzadeh & Gholami, 2014).

Recent studies have also explored various issues of second language writing in connection to computer-mediated communication and online technology (Dodd, 2001; Gonzälez-Bueno & Pérez, 2000; Hyland, 2003; Kern, 1996; Mason & Rennie, 2010; Ritchie & Black, 2012; Torres & Vinagre, 2007), and have shown that in general e-mail projects offer opportunities for language learning (Vinagre, 2005). Telecollaboration studies showed that students prefer receiving feedback on their tasks (Lee & Markey, 2014) but do not always provide it especially when not instructed to do so (Ware & O'Dowd, 2008).