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L2 performance in text-chat and spoken discourse

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Abstract

The present study builds upon research in the CAF (complexity, accuracy, fluency) framework for examining learner performance to compare the lexical and syntactic complexity of learner output in spoken discourse and synchronous computer-mediated communication (SCMC) during completion of narrative tasks. Data were generated from transcripts and video-enhanced chat-scripts for ($N = 21$) university learners of English from linguistically, educationally and digitally diverse backgrounds. Results revealed no significant difference in either the lexical or syntactic complexity of the narratives generated in these two modalities and instead found evidence that different types of learners in this heterogenous population were able to generate more complex language predominantly in one context over the other.

Keywords: SCMC; Text-chat; Spoken language; Lexical complexity; Syntactic complexity

1. Introduction

Since the introduction of free chat clients in the 1990s (e.g. Yahoo! Instant Messenger), synchronous computer-mediated communication (SCMC) in the form of instant messaging or text-chat has become increasingly prevalent in technology enhanced language classrooms. Alongside the growth of SCMC as a pedagogical tool, research on SCMC and second language development has also seen a surge in the past decade (Sauro, 2011). Among this body of research, several studies have examined how the language that L2 learners produce during text-chat interaction compares with the language they produce in other domains, including spoken discussion (e.g. Kern, 1995).

Studies which have focused on comparing the quantity and complexity of text-chat discourse to spoken discourse have uncovered conflicting results. While some have found evidence of higher overall participation (Beauvois, 1998; Kern, 1995) or turn-taking (Pyun, 2003) and greater lexical and syntactic complexity (Warschauer, 1996) in text-chat over oral discussions, other studies have found lower syntactic complexity (Pyun, 2003) and variation in participation patterns among small groups (Böhlke, 2003) in text-chat compared to oral discussions.

At the same time that these studies explore learner performance in collaborative or classroom-based interaction, the various configurations and tasks make it difficult to provide a clear picture of the degree to which the modality (text-chat or speech) and not the task conditions (e.g. task topic, number of interlocutors) influence individual learner

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performance. That is to say, the dominance of members of a particular group, the size of the group, the presence or absence of the instructor, and the difficulty of a specific discussion topic are all additional variables which can influence individual learner performance. In addition, studies that have compared L2 text-chat and spoken discourse have primarily dealt with linguistically and educationally homogenous populations so that most participants share a common L1 and similar pedagogical background in the target language. Such populations, therefore, do not reflect the heterogenous and linguistically diverse populations found in many adult ESL classes.

However, studies of second language performance under different task conditions that incorporate measures of complexity, accuracy, and fluency (CAF) provide both a theoretical and methodological model for examining individual learner output in text-chat and speech (e.g. Ellis and Yuan, 2004; Ortega, 1999; Tavakoli and Foster, 2008). These studies often incorporate narrative tasks, which have a long tradition in SLA research due to their familiarity to learners and somewhat monologic nature (Ortega, 1999), which can reduce the influence of interactional variables (e.g. interlocutor proficiency or dominance) on individual learner output. In addition, the incorporation of screen capture technology to record self-repair (Smith, 2008) and in-the-moment composing and editing of text messages (Sauro and Smith, 2010) enables a more nuanced examination of learner performance during text-chat than is possible in less controlled conditions captured in prior comparative studies of text-chat and spoken discourse.

Accordingly, this present study incorporates screen capture technology and the use of monologic narrative tasks found in CAF studies of L2 performance to compare the lexical and syntactic complexity of learner output in text-chat and spoken discourse.

2. Literature review

2.1. Studies of L2 performance in text-chat and spoken discourse

Studies that compare L2 learner performance in text-chat and spoken interaction represent a relatively small subset of research that has explored the use of CMC for second language acquisition over the past two decades (Sauro, 2011). The focus of comparison for these studies has been in two areas: overall patterns of participation and the syntactic complexity of turns in discussion-oriented activities in primarily US university foreign language classrooms.

2.1.1. Patterns of participation in text-chat and spoken interaction

Studies from the mid-1990s, a time before instant messaging had become as commonplace among US university populations as it is today, looked to discourse management strategies and turn-taking as an index of learner participation in text-chat and spoken discussions. Chun's (1994) examination of text-chat discussions in university level German as a foreign language classrooms documented participation in the form of speech acts and discourse structures generated by learners. In text-chat discussions, Chun's learners employed a wide range of discourse management strategies to take the initiative and manage discussions. In his comparison of whole class discussions in university French classes, Kern (1995) found on average more student turns were generated in text-chat discussions than in spoken discussions. In both these studies, the participation patterns in text-chat were attributed in part to the reduced role of the instructor in text-chat discussions.

Also taking a quantitative approach to examining turn-taking in text-chat, Beauvois (1998) compared the number and function of turns generated in whole class discussions in text-chat and speech in university French classes. She found a total of 150–200 student-initiated turns were produced in the text-chat discussions with individual students contributing between 4 and 30 messages in a 75-min class. Comparison with spoken discussions confirmed similar trends to those identified by Chun (1994) and Kern (1995) regarding a reduced role for the teacher in text-chat discussions.

Looking to participation patterns in small group as opposed to whole class discussions, Warschauer (1996) compared the distribution of turns among small groups of community college ESL students. In contrast to the wide range in turn-taking found by Beauvois in whole class discussions, Warschauer noted a more equal distribution of turns in text-chat discussions among participants in most groups of 4 students. In a study conducted in 1998 among university learners of German, Böhlke (2003) also examined distribution of turns in small groups of either 4 or 5 students. His analysis revealed differences in participation patterns in groups of different sizes and in groups with a single particularly dominant student. While the distribution of turns in groups of 4 was more equal during text-chat discussions than in spoken discussions, the same was not true in groups of 5.