Title of Project:
Investigating the Interactions among Genre, Task Complexity, and Proficiency in L2 Writing: A Comprehensive Text Analysis and Study of Learner Perceptions

Researcher:
Hyung-Jo Yoon
Michigan State University
yoonhyu9@msu.edu

Research Supervisor:
Dr. Charlene Polio
Michigan State University

Final Report

Motivation for the Research
Second language (L2) learners’ performance on one writing task may not fully reflect their writing proficiency, due to the complex, multidimensional nature of writing proficiency (Norris & Manchón, 2012). Therefore, researchers have suggested that more than one task should be employed to gain a fuller picture of learners’ writing proficiency (Bouwer et al., 2015; Horowitz, 1986), and what is important is for practitioners to implement multiple tasks with a clear understanding of how task differences influence learners’ language use and development. The current research aims to disentangle the interactions among genre, task complexity, and L2 proficiency in ESL students’ language production and perceptions. In task-based writing research authors began to examine cognitive task complexity to see how it interplays within written discourse (see Plonsky & Kim, 2016), manipulating task dimensions within a specific written genre (e.g., Ong & Zhang, 2010; idea support condition manipulated in argumentative) or operationalizing genre as a cognitive complexity dimension (e.g., Ruiz-Funes, 2015; expository writing operationalized as more complex than narrative).

However, due to several fundamental differences between the two modalities (written and oral language), researchers have expressed concerns about the validity of the direct application of cognitive complexity hypotheses to writing (Polio & Yoon, 2016). Additionally, genre as a task variable needs to be analyzed with caution because there are two research lines that address a similar issue with different starting points and purposes (i.e., one on genre effects and the other on task complexity effects), potentially resulting in diverging interpretations. To explore the validity of genre and task manipulations, this study examines L2 students’ production and perceptions across four writing tasks, together with teachers’ perceptions of the tasks. Also, to go beyond the tradition of comparing linguistic complexity differences against two competing task complexity hypotheses in task research (see Robinson, 2011), this study analyzes textual features that have been underexplored, offering insights into how such features interact with genre and task factors.
Research Questions

Considering writing as discourse, genre studies have explained the use of genre-specific linguistic constructions in alignment with the functional demands of each genre (e.g., Beers & Nagy, 2009; Biber & Conrad, 2009; Yoon & Polio, 2016). For example, narrative and argumentative essays serve different purposes (i.e., tell a story in chronological order or make a convincing argument). and, therefore. they require different linguistic structures (e.g., narrative: time adverbial clauses and personal pronouns; argumentative: relative clauses and nominal post-modifiers). On the other hand, task complexity research (e.g., Kormos, 2011; Kuiken & Vedder, 2008; Ong & Zhang, 2010) has examined task manipulation effects on linguistic features with the assumption that language differences are associated with varying levels of cognitive demands of tasks. In this research line, while various task features have been manipulated within a genre (e.g., number of elements) for language changes, several recent studies have operationalized genre as one of the cognitive complexity variables (e.g., Ruiz-Funes, 2015; Yang, 2014). For example, Ruiz-Funes (2015) explored linguistic changes across different genres, with narrative/analytic writing operationalized as low reasoning tasks and expository/argumentative writing as high reasoning ones, thereby interpreting her finding of increased linguistic complexity in expository/argumentative writing as the outcome of higher task demands.

While genre research and inter-genre task research have produced comparable findings (e.g., higher syntactic complexity in non-narratives), the two lines of research are grounded in different theoretical assumptions. Also, genre research focuses on raising awareness of genre-appropriate communication and language (learning-to-write), whereas the major implication of task research is related to how to promote language development more effectively (writing-to-learn). Given these distinct premises, it seems important to explicate the link between task perceptions and language use, leading to the construction of more valid and effective writing tasks for L2 instruction and assessment. For task perception data, I used a self-rating questionnaire that has been shown to measure participants’ cognitive processes validly (Révész et al., 2016; Sasayama, 2016). Here, by collecting data from ESL teachers and ESL students, I attempted to reveal a potential gap between ESL teachers’ expectations of different task types and ESL students’ actual perceptions of the tasks. A comprehensive analysis of textual features, which would not limited to complexity or accuracy measures, would contribute to providing a fuller picture of the interactions between genre and task in L2 writing. Two additional areas for text analysis are cohesion and interactional metadiscourse features as previous research has shown differing uses of connectives and stance markers across different writing tasks (e.g., Hong & Cao, 2014; Kormos, 2011). The research questions addressed in this study are as follows:

1. How do ESL students and teachers perceive the writing tasks manipulated in terms of genre and task complexity?
2. What are the effects of genre and task complexity on textual features in ESL writing?
   2.1. How does L2 proficiency interact with task type effects on textual features?
3. How do textual features contribute to the overall quality of narrative and argumentative writing?
   3.1. How does L2 proficiency interact with task type effects on writing scores?

Research Methodology
For this study, I collected data from 76 ESL students enrolled in the two highest levels of a U.S. English language program. Each participant wrote four essays: two narrative and two argumentative essays. Within each genre, the condition of idea support was manipulated. The tasks with idea support (less complex) were given to participants with some information that they could utilize while writing. To avoid potential topic influences, I devised the prompts that have the shared topic of foreign language learning or use. Data was collected at one-week intervals, with the order of the prompts counterbalanced and the genres alternated. A cloze test was used to measure participants’ general English proficiency (Brown, 1978), and a modified version of the task perception questionnaire (Révész et al., 2015) was used to elicit students’ and teachers’ perceptions of the tasks to compare students’ perceptions with teachers’ intention of task use. To evaluate the quality of the student essays, I used an analytic scale (Polio, 2013), adapted from the ESL composition profile (Jacobs et al., 1981). For quantitative text analysis, four natural language processing tools were used: Coh-Metrix (McNamara et al., 2014), L2 Syntactic Complexity Analyzer (Lu, 2010), the Multidimensional Analysis Tagger (henceforth MAT; Nini, 2015), and Authorial Voice Analyzer (Yoon, 2017). The use of these processing tools was intended not only to address the multidimensional features of linguistic complexity (Norris & Ortega, 2009) but also to explore discourse features beyond traditional linguistic measures valid in task research. Measures of syntactic complexity were obtained using SCA, MAT, and Coh-Metrix. Coh-Metrix and MAT were further used for lexical and discourse-level features. Last, AVA was employed for interactional metadiscourse features. Using these quantitative results, I explored how genre and task complexity influence textual features and identify how these features distinctly contribute to the writing quality of each genre. This quantitative investigation was followed by a qualitative text analysis that allows for a systematic exploration of the link between linguistic features and their functions in relation to contexts (Schleppegrell, 2004).

Summary of Findings
From the task perception result, I found a gap between the student and teacher groups regarding their views of the two genres. Specifically, the teachers predicted that ESL students would have greater difficulty in completing the argumentative genre than the narrative, but, instead, the students perceived both genres as involving a similar level of complexity and difficulty. Also, unlike teachers’ expectations, students consistently judged the tasks with idea support as less complex and less difficult. One common result from both groups was their judgments of the narrative genre as sparking greater interest and motivation for further writing than the argumentative.

The writing result showed that the students’ language varied to a greater extent across the two genres but not across the idea support conditions. This result suggests that there is a very weak link between writers’ task perceptions and language production, challenging the common practice of task-based writing research. Therefore, this result points to the importance of exploring these two different result types separately in written discourse because changes in writers’ language are largely motivated by the varying communicative functions of different genres and not by a task’s cognitive constraints, which are imposed on writers.

Implications
The presumption that I intended to explore and challenge involved the genre-cognition connection in L2 writing research. Thus far, many L2 researchers have explained their findings...
of cross-genre language and score differences as arising from the difference in cognitive pressure between genres, and this practice has been widely accepted in the field because many have believed that linguistic features are dependent on cognitive processes due to humans’ limited cognitive resources, as well as the majority of previous research, which has produced very consistent findings of higher linguistic complexity and lower essay scores in the argumentative genre than the narrative. However, as evidenced by the findings of the current study, it was found that the majority of the textual features are a manifestation of a set of communicative functions demanded by each genre, while lexical sophistication is one of a few areas that were shown to differ according to the cognitive complexity of writing tasks.

Furthermore, due to a widespread belief that argumentative writing, a cognitively challenging task, is most suitable for testing purposes, L2 writing teachers tend to focus on developing students’ skills for argumentative writing; accordingly, they have paid relatively less attention to other genres, such as narrative or descriptive writing. Similarly, it is likely that teachers assume that they do not need any more instruction for narrative writing when their students show sufficient skills for argumentative writing because of their conception of narrative writing as a simpler task than argumentative writing. However, based on the finding of this study, I argue that teachers should not make an a priori decision on how tasks will work and what to include in a curriculum.
References


Smith, W. L., Hull, G. A., Land, R. E., Moore, M. T., Ball, C., Dunham, D. E., Hickey, L. S., &


