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Task-based Language Teaching and L2 Writing: The Performance-Development Divide

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Abstract

Second language (L2) writing researchers have enthusiastically adopted task complexity frameworks in their examination of the effects of complex task features on L2 written performance. However, such research often overlooks the effect(s) of such features on general L2 development as well as L2 writing development. Drawing from Manchón and Williams's (2016) perspective of writing as a mechanism for language development, this paper (a) presents a critical review of L2 writing research informed by task-based language teaching and conceptions of task complexity and (b) argues for expanded L2 writing research on task complexity and its effect on L2 production as well as the ways in which complex task features facilitate attention to language, and thus general L2 development, and L2 writing development. Future research is suggested in light of a discussion of research trends to date.

Keywords: *Task-Based Language Teaching, L2 Writing, Cognition Hypothesis, Limited Attentional Capacity Model, L2 Development, L2 Performance*

Introduction

Second language (L2) writing researchers have enthusiastically embraced task-based language teaching (TBLT) and task complexity frameworks in an effort to better understand how complex task features affect L2 writing performance, most frequently measured in terms of syntactic complexity, accuracy, lexical complexity, and/or fluency (henceforth CALF). While the results of many such studies are inconclusive, the results of a meta-analytic comparison of L2 writing studies on task complexity (Johnson, 2017) suggest that—in the aggregate—complex task features do exert some influence over L2 written CALF. However, much of the TBLT-informed L2 writing research focuses on written performance to the exclusion of an examination of general L2 development as well as L2 writing development. If, as Williams (2012) and Manchón and Williams (2016) have suggested, writing is to serve as a locus for

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general development in the L2, then more research is needed to understand how task sequence affects linguistic development and writing performance and how tasks can be structured to facilitate learners' attention to the formal features of various genres—thus contributing to the development of formal genre-specific knowledge (Tardy, 2000). Further, if we are to accept the development of the L2 as a dynamic system (Larsen-Freeman, 2006; Larsen-Freeman & Cameron, 2008), more research is needed to understand how task complexity affects L2 performance and L2 development.

This paper presents a critical overview of TBLT-informed L2 writing research, suggesting areas for future research, in particular research seeking to better determine the effect of task complexity features on general L2 development and L2 writing development. Thus, what follows is first an outline of the theoretical frameworks informing research on task complexity in L2 writing followed by a summary of notable research trends in the domain. The paper then ends with recommendations for future research.

Theoretical Frameworks in TBLT-Informed L2 Writing Research

Although there is some criticism that each prioritizes oral language production over written language production (Manchón, 2014; Tavakoli, 2014), two overarching theories inform the majority of TBLT-informed L2 writing research: (a) the Limited Attentional Capacity Model (Skehan, 1998) and (b) the Cognition Hypothesis (Robinson, 2011).

The Limited Attentional Capacity Model

Two tenets appear to be central to the Limited Attentional Capacity Model (LACM; Skehan, 1998; Skehan & Foster, 2001). First is the belief that L2 production makes considerable demands on the attention of the L2 learner (Kormos, 2006). Second is the belief that the L2 learner draws on two stores of the interlanguage system: (a) an exemplar-based interlanguage system comprising formulaic chunks of previously acquired, unanalyzed structures and (b) a rule-based interlanguage system which constructs novel utterances from the learner's consultation of her/his mental model of the language.

The LACM—as the name suggests—conceives of attention as a limited resource. Thus, learners must prioritize the direction of their attentional resources to a single facet of L2 production. Tasks that are complex or novel to the L2 learner are thought to require additional attentional resources that cause the learner to prioritize a focus on meaning and to draw from the automatized, exemplar-based interlanguage system, resulting in an increase in fluency. However, the increase in fluency coincides with a decrease in complexity and accuracy. In contrast, tasks that are simple or familiar to the learner will free attentional resources such that the learner can consult the rule-based interlanguage system, which facilitates more complex or more accurate language production. However, this increase in complexity or accuracy comes at the expense of fluency. Readers will note that more than one facet of language production cannot be the focus of the learner's attention, hence the LACM's common moniker: the Tradeoff Hypothesis. Framing this trade-off in terms of the performance-development divide, it would appear that development—through attention to the rule-based interlanguage system—comes at the expense of the other facets of performance. Thus, development arises from freeing the learner's cognitive resources so that the learner can attend to linguistic form.

The Cognition Hypothesis

Robinson’s Cognition Hypothesis (CH; 2001, 2005, 2011) posits multiple pools of attentional resources, theorizing two task complexity axes which differ in the kinds of demands they place on the learner’s cognitive resources (see Table 1): (a) a resource-dispersing axis and (b) a resource-directing axis. Resource-dispersing task complexity features are thought to do exactly that: disperse the learner’s attention, interfering with language production. Thus, learner performance will be affected in much the same way as predicted by the LACM. In contrast, resource-directing task complexity features are hypothesized to direct the learner’s attention due to the heightened cognitive demands of the task. This increase in cognitive demands, in turn, focuses the learner’s attention to the linguistic resources needed to complete the task, resulting in more complex, more accurate—but less fluent—language production. Thus, development arises from learner attention to the increased cognitive demands of a task and to the linguistic resources needed to relay a complex message.

Table 1

Task Complexity Features (Adapted from Robinson, 2011)

Resource-directing features	Resource-dispersing features
±Here-and-now	±Planning time
±Few elements	±Prior knowledge
±Spatial reasoning	±Single task
±Causal reasoning	±Task structure
±Intentional reasoning	±Few steps
±Perspective taking	±Interdependency of steps

Working Memory in L1 Writing

As previously noted, one of the criticisms of the LACM and the CH is that both prioritize oral language production (Manchón, 2014; Tavakoli, 2014) and may not apply to written L2 production (Johnson, Mercado, & Acevedo, 2012). However, the CH’s conception of multiple pools of attentional resources is similar to Kellogg’s (1996) widely accepted model of L1 writing and its interface with working memory, making Kellogg’s model an attractive theoretical framework for studies of L2 writing.

Informed by Baddeley’s (1986, 2007) model of working memory and early process oriented L1 writing research (Flower & Hayes, 1980), Kellogg (1996) links composing systems and processes to specific components of working memory (see Table 2). According to this model, working memory is made up of three components: (a) the phonological loop, responsible for processing phonological information and feeding it forward to long-term memory, (b) the visuo-spatial sketchpad, responsible for processing visual and spatial information and feeding it forward to long-term memory, and (c) the central executive, responsible for directing the function of the phonological loop and the visuo-spatial sketchpad and for supporting one or the other should it become overburdened. While Baddeley’s model conceives of multiple components of working memory, here is where its similarity to the CH ends: in this model (Baddeley (1986, 2007), working memory capacity is limited.

As can be seen in Table 2, Kellogg’s (1996) model articulates the interface of working memory components and composing systems. The formulation system is particularly

interesting to TBLT-informed L2 writing researchers because it makes the greatest demands of working memory capacity, occupying the visuo-spatial sketchpad, the phonological loop, and the central executive, as writers simultaneously attend to planning—which further divides attention between three sub-processes: (a) idea generation, (b) organization, and (c) goal-setting—and translating, which includes retrieving linguistic forms from long-term memory.

Table 2

Kellogg's (1996) Model of Working Memory in L1 Writing (adapted from adapted from Kellogg, Whiteford, Turner, Cahill, & Mertens, 2013)

Writing System	Writing Process	Visuo-Spatial Sketchpad	Central Executive	Phonological Loop
Formulation	Planning	✓	✓	
	Translating		✓	✓
Execution	Programming		✓	
	Executing			
Monitoring	Reading		✓	✓
	Editing		✓	

According to Kellogg's early research (1987a, 1987b, 1988, 1990), separating planning as a distinct activity prior to composing allows adult L1 writers to devote additional attention to the translation process, which results in greater writing fluency, improved ratings of writing quality, and improved ratings of language use. Thus, writing processes themselves appear to constitute a form of resource-dispersing task complexity by drawing attentional resources away from the translation process and negatively affecting language performance.

Task Complexity and L2 Writing

Early TBLT-informed writing research simply sought to test the applicability of the LACM and CH frameworks to the study of L2 writing by examining the effects of various task complexity features on L2 writing performance. In the research domain, the single most-frequently studied task complexity feature is the provision of pre-task planning time—a form of resource-dispersing task complexity—and its impact on subsequent L2 written CALF. However, the results of these studies are, at times, contradictory. A frequently cited study by Ellis and Yuan (2004) found pre-task planning to positively affect syntactic complexity and fluency among Chinese L2 writers in an undergraduate English program at a university in China. Further, the reported effects were quite large ($d > 0.90$ and $d > 4.00$, respectively). To contrast, in a later study by Ong and Zhang (2010), the authors found negative effects of pre-task planning on the lexical complexity and fluency of Chinese L2 writers in a communication studies program at a university in Singapore. Further still, a large-scale study by Johnson, Mercado, and Acevedo (2012) found pre-task planning to have a negligible effect on L2 writing fluency among 968 learners of English as a foreign language. More recently, meta-analytic research on task complexity features (Johnson, 2017), in particular planning (Johnson & Abdi Tabari, 2023), suggests positive effects of pre-task planning on L2 written production (see Table 3).

Table 3

Effect Sizes (Cohen's d) Reported in Meta-analytic Studies on Planning in L2 Production (Johnson, 2017; Johnson & Abdi Tabari, 2022, 2023)

	Johnson (2017) Independent- samples comparisons	Johnson (2017) Dependent- samples comparisons	Johnson & Abdi Tabari (2023)	Johnson & Abdi Tabari (2022)
Syntactic Complexity	0.42 (<i>k</i> = 28)*	n.s.**	0.65 (<i>k</i> = 18)	0.58 (<i>k</i> = 27)
Accuracy	.26 (<i>k</i> = 18)	n.s.	0.34 (<i>k</i> = 19)	0.39 (<i>k</i> = 33)
Lexical Complexity	n.s.	0.65 (<i>k</i> = 6)	n.s.	n.s.
Fluency	n.s.	n.s.	0.63 (<i>k</i> = 17)	0.46 (<i>k</i> = 32)

**k* notes the number of distinct comparisons.

***n.s.* indicates that the meta-analytic comparison was not significant.

As can be seen in Table 3, when aggregated across TBLT-informed L2 writing studies in the domain, pre-task planning's effect on L2 written syntactic complexity and accuracy is relatively stable and is very similar to its effect on L2 oral syntactic complexity and accuracy (Johnson & Abdi Tabari, 2022), supporting the application of task complexity frameworks to L2 writing research. In contrast, pre-task planning's effect on L2 written lexical complexity appears to be limited to comparisons of dependent-samples research designs, providing some support for task repetition as a means of promoting L2 development, a point discussed in further detail below.

Other resource-dispersing task complexity features examined in L2 writing research include task structure (Ong & Zhang, 2010), topic familiarity (Salimi & Fatollahnejad, 2012; Ruiz-Funes, 2015; Yang, 2014), and task familiarity (Ruiz-Funes, 2015; Yang, 2014). As is illustrated in Table 4, meta-analytic comparison of these resource-dispersing task complexity features is limited to a small number of independent-samples comparisons. However, examination of significant comparisons indicates a small to medium positive effect of reducing the resource-dispersing features of a task on the syntactic complexity and lexical complexity of L2 written production.

Table 4

Meta-analytic Comparisons of Resource-dispersing Task Complexity Features (Adapted from Johnson, 2017)

		Syntactic complexity	Accuracy	Lexical Complexity	Fluency
Independent-samples comparisons	Task structure	-	-	n.s.	n.s.
	Topic familiarity	n.s.**	n.s.	.50 (k = 6)	n.s.
	Task familiarity	.25 (k = 27)	n.s.	.32 (k = 9)	n.s.
Dependent-samples comparisons	Task structure	-	-	-	-
	Topic familiarity	-	-	-	-
	Task familiarity	-	-	-	-

Less is known about how resource-directing task complexity features affect L2 written CALF, as meta-analytic comparisons of studies (Johnson, 2017) are based on limited research in the domain. As is illustrated in Table 5, in the aggregate, significant effects have been noted for increased resource-directing task complexity features with regard to L2 written accuracy and lexical complexity. However, the effects are quite small ($d = 0.37$ and 0.19 , respectively). When specific resource-directing features of task complexity are examined, increased reasoning demands appear to negatively affect L2 written accuracy but to positively affect L2 written lexical complexity. However, these effects are limited to within-participant comparisons. Increased task complexity in the form of +/- here-and-now appears to positively affect L2 written syntactic complexity, accuracy, and fluency. However, this effect is limited to independent-samples comparisons and ranges from small to medium. Further examination of Table 5 indicates many non-significant comparisons as well as many missing comparisons in the research domain.

As Johnson (2017, 2022) suggests, inconclusive results of previous L2 writing research on task complexity may stem from the “directability of attention” (Ishikawa, 2007, p. 151) inherent to the writing process. Because that process is much slower and more deliberate than speaking (Manchón & Williams, 2016), writers can turn their attention to one or more facet of language production (i.e., CALF) or to one or more composing process (i.e., formulation or monitoring). Thus, as Larsen-Freeman (2006) argues, individual learner differences, individual learner goals, and learner responses to a changing context impact the effect of complex task features on L2 written production. This impact opens three very important research avenues for TBLT-informed writing research: (a) the effect(s) of task sequence on L2 written performance, (b) the effect(s) of task sequence on the development of general L2 proficiency, and (c) the effect of task sequence on the development of L2 writing proficiency. The first of these avenues has only recently begun to be explored by TBLT-informed L2 writing research.

Table 5

Comparison of Effect Sizes of Studies Examining Resource-directing Task Complexity Features (Adapted from Johnson, 2017)

		Syntactic Complexity	Accuracy	Lexical Complexity	Fluency
Independent-samples comparisons	Aggregate	n.s.*	0.37u0 (k = 3)	n.s.	n.s.
	+/- reasoning demands	-	-	-	-
	+/- here-and-now	0.42 (k = 6)	0.37 (k = 3)	n.s.	0.44 (k = 3)
	+/- few elements	-0.09 (k = 8)	-	-	-
	+/- draft available	-	-	n.s.	n.s.
Dependent-samples comparisons	Aggregate	n.s.	n.s.	0.19 (k = 19)	n.s.
	+/- reasoning demands	n.s.	-0.53 (k = 10)	0.45 (k = 8)	n.s.
	+/- here-and-now	-	n.s.	-	n.s.
	+/- few elements	n.s.	n.s.	n.s.	n.s.
	+/- draft available	-	-	-	-

Task Sequence in TBLT-Informed L2 Writing Research

As noted previously, when examining the domain of TBLT-informed L2 writing research, the lack of dependent-samples studies—in particular studies of task sequence—is apparent (Johnson, 2022). This is ironic given the centrality of task sequence to both the LACM and CH (Choong, 2011; Robinson, 2007). Further, the large number of independent-samples studies points to a preoccupation with L2 writing performance—rather than longitudinal development—in the research domain. However, a growing research trend has sought to better understand the role of task sequence on L2 written performance, focusing on two main areas: (a) task repetition and (b) sequencing tasks from less complex to more complex.

Task Repetition

Advocating for a dynamic systems approach to the study of second language acquisition, Larsen-Freeman (2006) examined task repetition and its effect on the CALF of oral and written production of five learners of English as a second language at a university in the United States. In her study, Larsen-Freeman (2006) found increases in L2 written CALF among the participants when performance was examined in the aggregate. However, when individual performance was examined, Larsen-Freeman discovered a good degree of variability—both within the individual and between individuals—further suggesting a “directability of attention” (Ishikawa, 2007, p. 151). Larsen-Freeman (2006) also found a good deal of variation in the goals of individual participants, indicating that learners likely direct attentional resources to various facets of language production based on their objectives.

Since Larsen-Freeman’s (2006) study, task repetition has gained ground in TBLT-informed L2 writing research, with many studies framing task repetition as a form of task planning (Johnson & Abdi Tabari, 2022) or as a form of task readiness (Bui, 2014). Studies on task repetition and its effect on L2 writing appear to be extending from examination of L2 written

performance to an examination of the potential for task repetition to affect the development of general proficiency in the L2. For example, in a longitudinal study of task repetition and L2 writing performance, Baba and Nitta (2010) and Nitta and Baba (2014) examined task repetition and its effect on the written production of 46 Japanese learners of English as a foreign language in two classes over the course of 30 weeks. Using a DST approach in addition to traditional null hypothesis testing, the authors found significant changes in the syntactic and lexical complexity of the participants' writing over the course of the study (Baba & Nitta, 2010). The authors also identified four trends of L2 development over time, each with a great deal of individual variation within that trend (Baba & Nitta, 2010). The authors further noted differences in the developmental trajectories of the two classes, suggesting some effect of instruction in addition to task sequence (Nitta & Baba, 2014).

Rather than examine task complexity and its effect on L2 oral CALF, Kim and Payant (2014) examined the effect of task complexity and task repetition on language related episodes (LREs) among Korean learners of English working together in groups. Importantly, the authors establish two types of task repetition: (a) task repetition, in which participants repeat an identical task, and (b) procedural repetition, in which participants perform a new task with procedures that are identical to the previous task. The authors also examined any interaction effects between task repetition and the resource-directing task complexity feature +/- reasoning demands. Kim and Payant (2014) found the reasoning demands of the tasks to have no significant effect on LREs—and thus no significant effect on attention to linguistic form. However, the authors found procedural task repetition to have a significant effect on the number of LREs in the participants' interaction. Thus, task repetition appears to facilitate attention to linguistic form and generate variation in the interlinguistic system (Larsen-Freeman, 2012), leading to a restructuring of that system.

More recently, Kim, Kang, Yun, Kim, and Choi (2020) examined the effect of two kinds of task repetition on the collaborative writing performance of learners of Korean as a foreign language: exact task repetition and procedural repetition. In exact task repetition, the participants repeated the same collaborative writing task after a one-day interval. In procedural task repetition, the participants repeated a similar task after a one-day interval. In addition to collecting metrics of the complexity and accuracy of the participants' writing, the authors also analyzed their oral language for LREs during collaboration. They also examined the participants' performance on a pre-test and post-test of specific grammatical features. Analysis of the data indicated that the participants in the exact repetition condition produced significantly more morphemes per T-unit at time two, whereas the participants in the procedural repetition condition produced significantly less complex language at time two. In terms of the accuracy of written production, participants in the procedural repetition condition produced written language that was significantly less accurate at time two. In terms of the effect of task repetition condition on LREs, the authors found that participants in the procedural task repetition condition produced more LREs at time two than did the participants in the exact repetition condition. Further, participants in the procedural repetition condition produced longer LREs, which were correctly resolved. In terms of the effect of task repetition on language learning, participants in the procedural repetition condition outperformed participants in the exact repetition condition on a grammar post-test. It would appear, then, that procedural repetition negatively affected language performance but facilitated language development, a

result predicted by Robinson's (2010) SSARC model and by Larsen-Freeman's (2012) discussion of task repetition—or iteration—and its utility in creating variation, and therefore development, in the interlinguistic system. Thus, the sequence of writing tasks may help teachers facilitate general development in the L2 through heightened attention to language form(s).

Sequencing Tasks from Simple to Complex

Robinson (2010) proposes using complex features of tasks to sequence them as a means to promote language development. In his SSARC model, Robinson (2010) links cognitive task demands to the developing interlanguage system (Larsen-Freeman & Cameron, 2008).

Robinson suggests three potential stages when sequencing tasks:

1. In the first stage, tasks that pose little demand on the resource-dispersing and resource-directing task complexity axes promote learner reliance on the current interlanguage system to complete the task.
2. In the second stage, increasing resource-dispersing task demands—while holding resource-directing task demands constant—promotes automatization of the learner's current interlanguage system.
3. In the third stage, increasing resource-dispersing task demands, while simultaneously increasing resource-directing task demands, destabilizes the interlanguage system, facilitating restructuring and complexification of that system.

The effect of task sequence is a growing area of focus for L2 writing researchers seeking to understand how task complexity impacts L2 written production. As is the case for research examining the effects of task complexity features on L2 written production, the research results on the effect of task sequence on L2 written production are inconclusive. Among the earliest studies of task sequence on L2 written production, Lambert and Robinson (2014) found minimal effects of sequencing tasks from less complex to more complex on the CALF of L2 written production. In contrast, Allaw & McDonough (2019) found more substantial effects of sequencing tasks from less complex to more complex.

A more recent examination (Abdi Tabari & Cho, 2022) found task complexity to have no significant effect on L2 written CALF. Rather, the interaction of task complexity and task sequence as well as the interaction of time and task sequence were found to positively affect the CALF of L2 written production. Participants, when composing in response to increasingly complex tasks, produced written language that was more accurate and more syntactically and lexically complex. It is important to note, however, that many such studies examine a relatively short timeframe, typically two weeks (Baralt, 2014) to five weeks (Allaw & McDonough, 2019). Lambert and Robinson (2014), in contrast, conducted a semester-long study, whereas Abdi Tabari and Miller (2021) conducted a single-session comparison of participants.

Task Complexity and L2 Writing Development

If, as Larsen-Freeman (2006, 2012) and Larsen-Freeman and Cameron (2008) argue, language use constitutes the language user's response to contextual factors, genre must be considered one of the factors to which the L2 writer must respond. Despite suggestions that genre and genre-awareness provide fertile ground for development in the L2 more broadly and development of L2 writing proficiency specifically (Byrnes, 2014; Byrnes & Manchón, 2014),

task complexity features and their effect on the development of L2 writing has often been overlooked and has only recently garnered increasing attention.

Byrnes (2014) argues for the consideration of complexity as encompassing "both the demands of tasks and writing" (p. 24) and asserts that the use and function of language in authentic discursive contexts should be considered as forms of task complexity. In other words, Byrnes argues for the consideration of genre as a form of task complexity and the development of grammatical forms associated with a given genre. In particular, Byrnes (2014) examined the development of "grammatical metaphor"—the movement from a verbal, process-oriented style associated with oral language production and narrative prose toward a nominal, state-oriented style more consistent with the genre conventions of academic prose. The results of her longitudinal analysis of learner data over four proficiency levels indicate clear development of linguistic complexity—both syntactic and lexical—in a corpus of writing by learners of German as a foreign language. The data also suggest a clear development in grammatical metaphor—the use of complex syntactic and lexical forms associated with a developing command over academic genres and their "meaning-making resources" (Byrnes, 2012, p. 193).

In a more recent discussion, Johnson (2023) argues for the consideration of formal genre-specific knowledge (Tardy, 2009, 2012; Tardy, Sommer-Farias, & Gevers, 2020) as a resource-dispersing feature of task complexity that is unique to writing. If, as Tardy (2009) argues, genres provide a context in which L2 writers may learn new lexicogrammatical structures, it is likely that exposure to, and practice with, writing new and varied genres allows for not only general development in the L2 but also for the development of L2 writing proficiency as a result of the learner's attention to the linguistic resources needed to communicate a message in response to the contextual factors imposed by the genre (Larsen-Freeman & Cameron, 2008). While recent studies have examined genre and its potential effect on L2 written performance (Polio & Yoon, 2018; Yoon & Polio, 2017), few studies beyond an early study by Byrnes (2014) have examined the effect of genre and task complexity and their dynamic, longitudinal effect on L2 writing development, thus presenting an avenue for future research.¹

Future Directions

The results of studies by Kim and Payant (2014) and Kim et al. (2020) indicate that task features—in particular procedural task repetition—facilitate the focus of attention on language, thus increasing the instance of LREs, in collaborative writing tasks. However, the effect(s) of task repetition on individual writing tasks remains unclear. Further, the relationship between task complexity features and noticing has not been examined. Future research is needed to determine how—if at all—task complexity features focus L2 writers' attention on the linguistic forms needed to communicate increasingly complex content. Such research would likely necessitate the use of concurrent think-aloud methodology, a labor-intensive, time-consuming research methodology.

Future research may also contribute to a better understanding of the longitudinal effects of the sequence of task complexity features on general L2 development and L2 writing development. Though the semester-long study by Lambert and Robinson (2014) is a notable exception, the majority of L2 writing research on task sequence and task repetition to date is limited to two-to-five-week timeframes. Future longitudinal research on the effect of task sequence—in particular tasks carefully sequenced using Robinson's (2007) SSARC

framework—on general L2 development and L2 writing development is needed. Further, future research on dynamic changes in the CALF of L2 written production over time is needed (Larsen-Freeman, 2006, 2012; Larsen-Freeman & Cameron, 2008).

Finally, future research is also needed to better understand how grammatical metaphor and formal genre-specific knowledge develop in the L2 writer, specifically how the L2 writer develops a command over syntactic and lexical forms associated with a given genre. As Bulté and Housen (2012) have noted, TBLT-informed L2 writing research has taken a theoretically neutral position in defining linguistic complexity, often providing circular definitions of syntactic and lexical complexity. Greater clarity is needed in TBLT-informed L2 writing research through the provision of clear construct definitions of linguistic complexity and careful consideration of metrics to operationally define linguistic complexity.

Endnote

1. Interested readers are referred to a forthcoming volume by Kessler and Polio for an overview of research methods for investigating genre in L2 writing research.

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