

Adapting a methodology: register analysis and task-based language teaching

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Overall goal of presentation

- To illustrate how register analysis can be used (on two different datasets)
- To encourage others to consider how the methods used in this presentation can be applied to their own research contexts/questions

The two perspectives

TBLT (describing L2 task performance)

- Interactionist perspective
 - Feedback, modified output, noticing of language forms
- Cognitive perspectives
 - Linguistic complexity, accuracy & fluency
- Assessment perspectives
 - Performance features related to competencies or achievement bands

Register analysis

- Language varies by reference to situational variables
- Language features
 - tend to co-occur
 - have a functional purpose

Accounting for variation

- Task perspective
 - Language use varies by different task characteristics: information flow, outcomes, complexity, etc. (e.g., Pica, Kanagy & Falodun, 1993; Robinson, 2001)
 - Typically measured by complexity, accuracy, fluency and/or discourse features
- Register perspective
 - Language use varies by situational characteristics: participants, mode, production circumstances, setting, purpose, topic (Biber, 1988; Biber & Conrad 2009)
 - Typically measured by corpus methods

Corpus linguistics: Two approaches

- Corpus-based
 - Use previous corpus findings to describe language or test theories/hypotheses (top-down approach)
- Corpus-driven
 - Use corpus data to examine language variation or to generate theories/hypotheses (bottom-up approach)

Two examples of how RA can relate to tasks

- Tasks as a “register”
 - How does the language of tasks compare with other registers (e.g., spoken language)?
- Applying principles of RA to smaller datasets
 - Is there linguistic variation in language produced under two different task conditions?

Doing a register analysis of “tasks”

- How do the language features associated with the spoken conversation register compare to those in L2 oral collaborative task performance?
- Why do this?
 - Description of “task language” can aid in future task design/task sequencing
 - Linguistic analysis can identify situational characteristics of tasks that may foster interlanguage development

A Corpus of Collaborative Tasks (CCOT)

Crawford & McDonough, 2014

- 820 collaborative tasks carried out by English L2 speakers in dyads
 - Administered for formative assessment in an intensive English program
 - Data collected in 12 semesters over a 4-year period
 - English L2 speakers from three general proficiency levels (intermediate to low advances)
- Corpus size = 301, 318 words
- Representative of oral communicative tasks used for assessment purposes.

Method

- Compared frequency of features in the CCOT with naturally-occurring face-to-face conversation in American English (AmE).
 - Features related to three functional characteristics of conversation
 - Shared context: first, second, and third person pronouns
 - Interactivity: backchannels
 - Real-time production: filled pauses; repeats
 - Frequency counts normalized to 1 million words

Shared context

(normed to 1,000,000 words)

Feature	Task corpus	Conversation
I	29,938	35,833
me	2,306	4,056
you	26,341	28,622

Interactivity

(normed to 1,000,000 words)

Feature	Task corpus	Conversation
Backchannels (hmm, mm)	936	1595

Real-time production

(normed to 1,000,000 words)

Feature	Task corpus	Conversation
Filled pauses (uh)	88,577	575

Common right collocates of filled pauses (tend to occur in subject position)

R collocates	cf.
I (1589)	me (15)
he (642)	him (8)
we (465)	us (4)
she (322)	her (51)
they (235)	them (14)

Common left collocates of filled pauses (tend to occur around verbs and coordinators/subordinators)

L Collocates (* = lemma)	
and (2261)	
*think (781)	think (777)
*have (494)	have (468)
because (492)	

The environment of filled pauses (collocates)

- Uh hello **uh I think uh** the government give us like five billion dollars to explore space **uh I think uh uh I think uh** we have to spend that much of money to manned mission to Mars uh to discover a new things and uh learn a new uh a new things there uh so what-what is your opinion about this?
 - A processing time chunk?

Functional interpretation

- Shared context
 - Less reference to self (I/me) than conversation
 - Communicative purpose is information exchange or decision making, participants have assigned roles
- Interactivity
 - Fewer backchannels than conversation
 - Communicative purpose is to complete a task; participants have assigned roles; assessment purpose of the task
- Real-time production
 - More filled pauses and repeats
 - Complexity of the tasks; language proficiency of participants
 - Within task analysis doesn't always show that more complex tasks (e.g., +/- planning time) result in more pauses/repeats

Benefits of the RA approach task performance

- Suggests the importance of designing tasks to encourage more interaction
 - Real-world tasks; potential drawback of assigned roles
 - Amount of interaction may be an important factor in task sequencing
 - tasks focusing on more interaction precede those with less interactional requirement
- Real time processing during task performance
 - Understanding the strategies that learners take to gain processing time
 - Creating other task characteristics that provide learners with alternative ways to process language (e.g., within task planning)

Using RA methods on smaller datasets (task conditions)

- Do collaborative and individual texts differ in terms of their lexicogrammatical features?
 - Problem solution paragraphs on the perils of video game addiction
- Previous collaborative writing research
 - Employ a traditional CAF approach
 - Show collaborative texts do not differ in their complexity or fluency but are more accurate (Fernández-Dobao, 2013; Wigglesworth & Storch 2009; Storch & Wigglesworth, 2007; Storch, 2005).
 - No complexity doesn't mean no variation

Method

Create comparable groups of texts on same topic with writers at the same proficiency level: one group of texts written by individuals, another written in dyads.

	Number of texts	Total words	Mean per text (<i>SD</i>)
Collaborative texts	32	5,412	169.1 (47.8)
Individual texts	35	5,437	151.2 (31.7)

Method

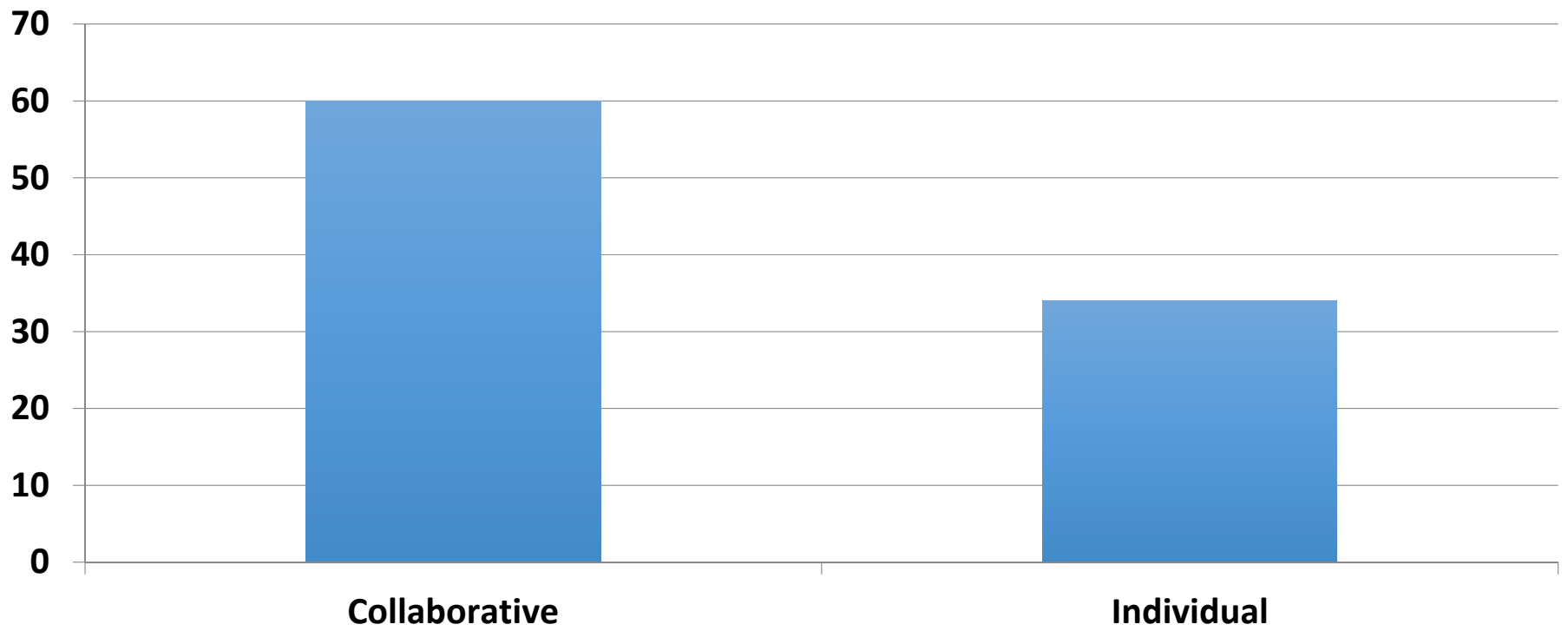
Use corpus-driven methods to look for potential variation between texts

- Lexical Bundles (frequent word sequences) with identifiable forms and functions
 - Occurred at least once in five texts
 - Software program: AntConc 3.4.3 (Anthony, 2015)
- Keyword differences (e.g., words that are found in one set of texts more frequently than in another set of texts)
 - Software program: WordSmith 6.0 (Smith, 2012)

Lexical bundles (form and function)

Type	Definition	Example
Referential	Used to specify an attribute/entity or provide time, place, amount, or text reference	<i>problem of games addiction</i> [NP] <i>addiction among CMU students</i> [NP]
Discourse organizing	Used to structure a text such as introduce, elaborate or focus on a topic/argument	<i>to solve this problem</i> [VP]

Frequency of lexical bundles



Distribution of lexical bundles in texts

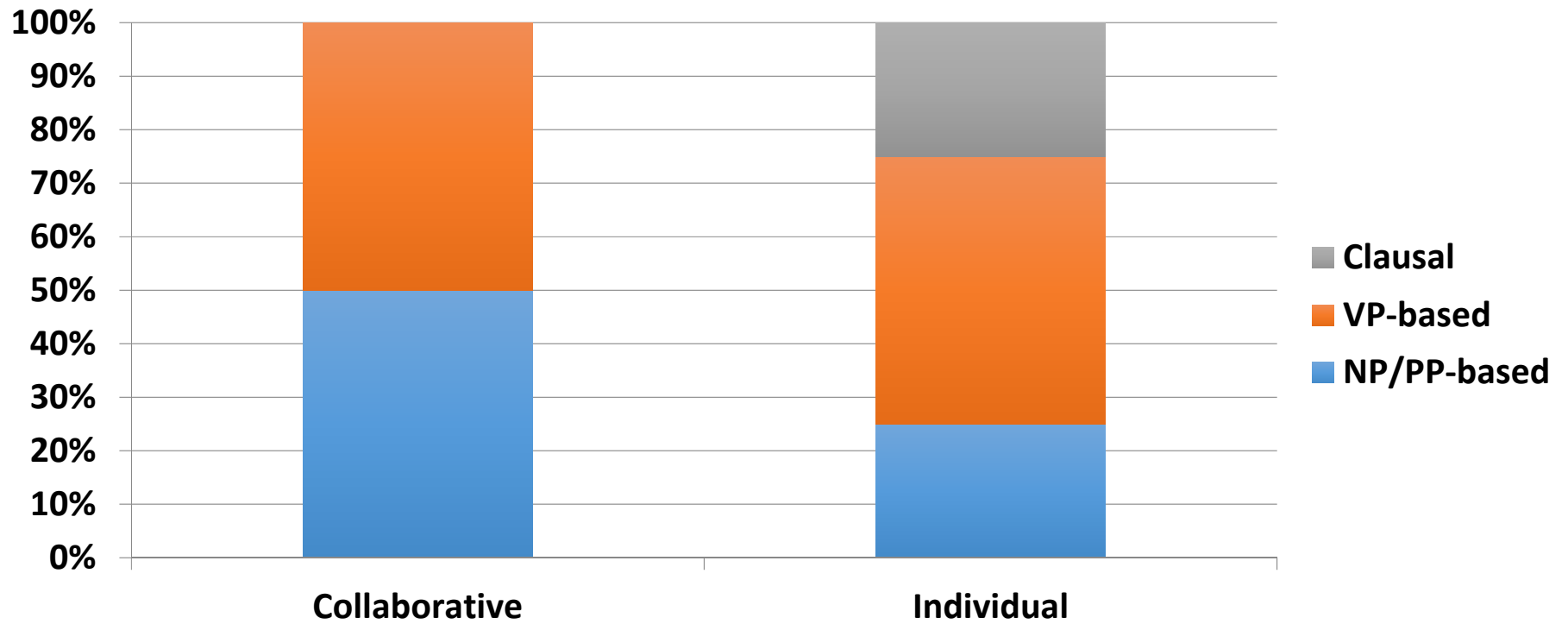
Collaborative texts (N=32)

Bundle Frequency	# of texts
25	20
17	14
11	10
7	6

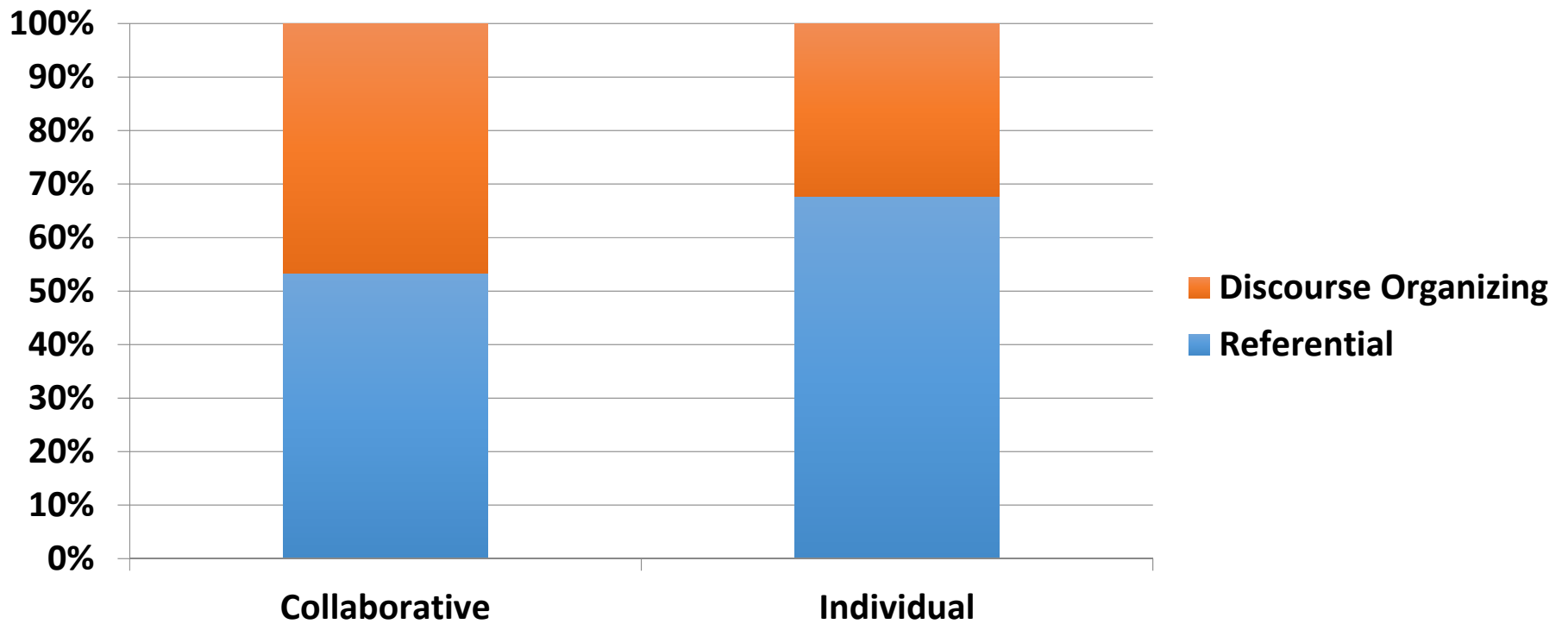
Individual texts (N=35)

Bundle Frequency	# of texts
14	8
9	7
6	5
5	5

Form of lexical bundles (proportion)



Function of lexical bundles (proportion)



Lexical bundle findings

- The collaborative text condition resulted in
 - more bundles distributed across a wider range of texts
 - equal distribution between two forms (NP and VP)
 - equal distribution across two functions (referential and discourse organizing)
- The individual text condition resulted in
 - fewer bundles distributed across fewer texts
 - tendency to produce VP or clausal bundles
 - a tendency to fulfill referential functions

Collaborative and individual key word differences

- Key words in Collaborative texts

- among
- the
- university
- students

- Keywords in Individual texts

- you
- your
- it
- don't
- we

Collaborative text

There are many solutions for this problem. The first solution is about to manage the **students'** free time. In the university, the **students** have to study hard. This is the cause of stress, so they have to relax themselves in their free time. Playing games is one of the ways to relax, but some **students** spend all time to play games. This is the cause of game addiction. Therefore to stop this problem, the **students** should do other activities for relaxing themselves in their free time such as do the exercise, listen to music or etc. Another solution is about the government. There are many game centers around the **university**. Thus, it is easy to find the places for playing games. The government should not allow the game centers to locate near the **university**.

Individual text

Nowadays, the game technology is developing so quick. **It** make a lot of students love and interesting to play games but some of them addict **it**. When **you** get addicted with the game **it** cause many problem for your life such as **your** bod and socially will be weak, **it** wastes **your** time and etc. So **we** need to solve this problem may be **we** should think about it seriously. How to get /---/ form games addiction? I think they should find some activities to do instead playing game. **It's** such a good idea because some activity can make **your** body stronger and your feeling more better. Sometime **you** can find new friends form activities to. How about wasting of time? **It's** very serious problem for student who's playing games. However **it** has **its** own solution. **You** just manage your time and make **it** well. So playing game is good but don't let them destroy **you**.

Collaborative writing tasks may 'push' learners to deploy their linguistic resources in ways that are different from individual writing

- Collaboration results in more formulaic language use (lexical bundles)
- Individual writing results in more features found in spoken language
 - The lack of interaction during the writing process results in the individual writers "interacting" with the text so they used more interactional features?

Overall implications

- Register analysis and register analysis techniques provide a useful methodology/framework to understand task complexity, task difficulty and task conditions
- TBLT research would benefit from a variationist perspective of language production (as opposed to a top-down “complexity” model)
- Register analysis and CALL/L2DL
 - RA predicts variation (and in this sense is a theory)
 - Corpus linguistic methods can be used to investigate language use/variation in digital contexts
 - Complement existing analyses
 - Conducting different types of analyses

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