

Teacher Language Knowledge as Applied to Error Analysis and Design of Instruction

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Overview

- Background /Review of relevant literature
- The Study
 - Methodology
 - Research Questions
 - Results
- Implications & Recommendations for Language Teacher Education
- Discussion/Q&A

Setting the Context

- Teacher Knowledge (pedagogical content knowledge)
- Teacher Knowledge about Language
- The Role of Language in Language Teacher Education
- Error Correction, Focus on Form & Learning-Oriented Assessment (LOA)

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Teacher Knowledge—pedagogical content knowledge

Literature on teacher knowledge addresses a range of awareness and skills novice teachers should have:

- knowledge of subject,
- knowledge of instruction,
- knowledge of students

(e.g., Schulman, 1987)

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The Role of Language in Language Teacher Education

- LTE as knowledge of language/linguistics
- LTE as understanding sociocultural processes of learning to teach (Johnson, 2000)
- A move towards integrating knowledge of language with knowledge of instruction (Johnston and Goettsch, 2000)
- Content-Based Instruction—requires both content and language instruction (Snow, Met, & Genesee, 1989)
 - TCs struggle to design language objectives in CBI; many have difficulty identifying salient features of language in their content (Baecher, Farnsworth & Ediger, 2014)

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Teacher Language Awareness (TLA); Knowledge About Language (KAL)

- “KAL informs what materials, tasks and assignments are best suited to students according to their global literacy skills and their syntactic development. KAL is core to the everyday work of language teachers.” (Bigelow & Ranney, 2005: 179)
- Teachers don’t apply (or have difficulty applying) KAL to teaching (Andrews, 1997, 2003; Bartels, 2005; Bigelow & Ranney, 2005)
- “[...] [teacher education] courses need to provide learning experiences in which L2 teachers use (or develop) KAL and local knowledge to engage in teaching-like tasks” (Bartels, 2009: 130)
- Debate: Explicit vs. implicit knowledge of language
- Must include knowledge of students (Andrews, 2007)

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Error Correction, Focus on Form & Learning-Oriented Assessment

- Impact of corrective feedback/form-focused instruction on uptake in communicative settings
 - Promotes learner uptake; improves accuracy
 - Recasts vs. explicit correction, Enhanced input, Focus on Form, Noticing the gap (Lyster & Ranta, 1997; Lyster, 2007; Doughty & Williams, 1998; Ellis, 2002; Schmidt, 2010)
- Impact of Grammar Correction in L2 Writing
 - Ineffective, harmful even (Truscott, 1996)
 - Effective, promotes learning in other areas (Ferris, 2002)
 - Effective, esp. in classroom settings (Sheen 2007; Lyster, 2008), and promotes long-term acquisition (Bitchener, 2008)
- Learning-Oriented Assessment (LOA): TCs need to be able to use assessment for determining how to design instruction (Purpura & Turner, 2013)

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Value of Lexico-Grammatical Knowledge for Language Teachers (Andrews, 2007)

Language teachers need language knowledge to:

- Assess student competencies and needs
- Diagnose and give feedback on student errors
- Design effective language teaching curricula
- Have a shared language and knowledge base for discussing learner performance with colleagues.
- Do LOA—To what extent do teachers' content knowledge and pedagogical content knowledge affect the interpretation of assessments and decisions about next learning steps?

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Why Lexico-Grammatical?

- Current knowledge of corpus linguistics shows how intertwined lexicon & grammar are
 - Grammar: syntax & morphology
 - Lexicon: various features of individual lexical items & strings
- Lexical & grammatical errors need to be treated differently
 - Grammatical: lend themselves to treatment as a class
 - Lexical: must be treated as individual items
- TCs need both kinds of knowledge

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Grammar vs. Lexical

- Grammar
 - Tense/aspect: present progressive for simple past
(**I feeling* for *I felt*)
 - *Much* + count N for *many*: **much people*
- Lexical
(meaning/semantic features, word choice, collocation, subcategorization, register issues)
 - **enroll* for *enlist* (in the army)
 - **big price* for *high price* (collocation)
 - **get* vs. *receive* (register)

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Motivation for Study

- To understand teachers' knowledge of inter-relationships between syntax, morphology, and lexicon, specifically, the role this knowledge plays in:
 - Identifying ESL learners' errors
 - explaining and designing instruction based on those errors
- Filling the research gap
 - Need for empirical evidence documenting:
 - The quality of teacher lexico-grammatical knowledge
 - Teachers' ability to use/apply it (Ferris, 2002, Ferris and Hedgecock 2005)

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Caveat

- The focus on lexical and grammatical aspects of student writing here does not presume that these are the only or even most important aspects of student writing to focus on.
- However, these are important aspects of teacher knowledge, so it is helpful to assess teacher's knowledge of them.
- Other aspects of teacher knowledge are focused on at other times with our TCs.

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Research Questions

1. Are our teacher candidates (TCs) able to identify their students' errors as a) errors, and b) either lexical or grammatical?
2. Can our teacher candidates analyze/explain why these are errors (i.e., not target-like) to students?
3. Can our TCs design instruction for their students, based on their understanding of the students' error types and their analysis?

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Methodology

- The Task
 - Final Project in MA TESOL Structure of English Course— Case Study with individual ESL student
 - Project Description for MA Students:
 - Find an ESL student informant; meet with them for 10 hours
 - Learn about their background, proficiency, etc.
 - Obtain writing sample
 - Identify three grammar and three lexical errors
 - Analyze errors
 - Develop treatments (activity/ instruction) for errors
 - Meet informant and explain errors, provide treatments
 - Write up the entire experience

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Categories of Analysis

- Informant Bio (age/grade, gender, L1, ESL proficiency, other background information)
- Does the teacher correctly ID error as grammar, lexical, or ambiguous?
- What is the specific nature of the error?
- Is the Teacher's analysis of the error accurate?
- Is the treatment appropriate for error & student?
- What might be possible explanations for an incorrect ID, analysis, or treatment?

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Analysis of Data

- Data collection (N=60); IRB-approved consent obtained post-course
- Rater norming on 360 items (60 x 6 items each— 3 lexical, 3 grammatical)
- Projects evaluated/rated separately by 2 raters
- Reconciled disagreements
- Calculated results
- Developed list of successes and problem areas
- Made list of recommendations

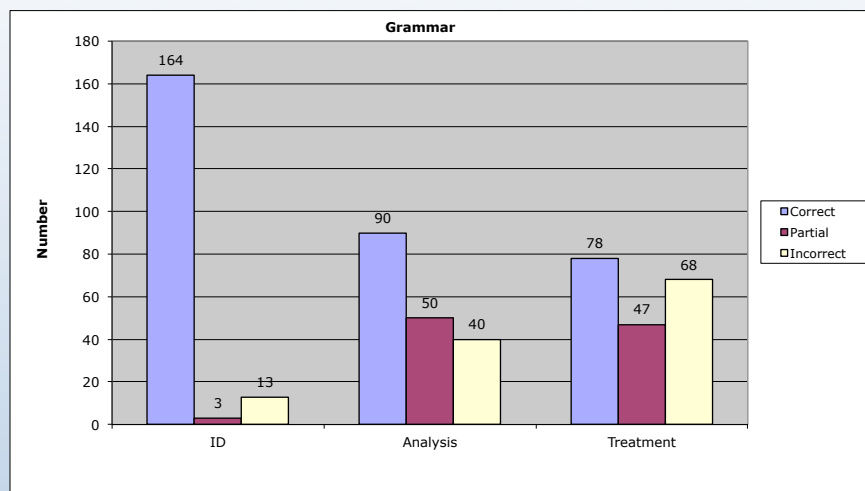
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Some Criteria for “correctness”

- Was the explanation an accurate/partial/inaccurate description of the error? (correct/partial/incorrect)
- Was the explanation appropriate for the type of error? (lexical vs. grammatical)
- Do no harm: Was the explanation clear or would/did it confuse the student? (correct/partial/incorrect)
- Was the explanation/treatment likely to help the student avoid the error in the future?
- Was the explanation/treatment appropriate for the student’s age/proficiency level/original error?

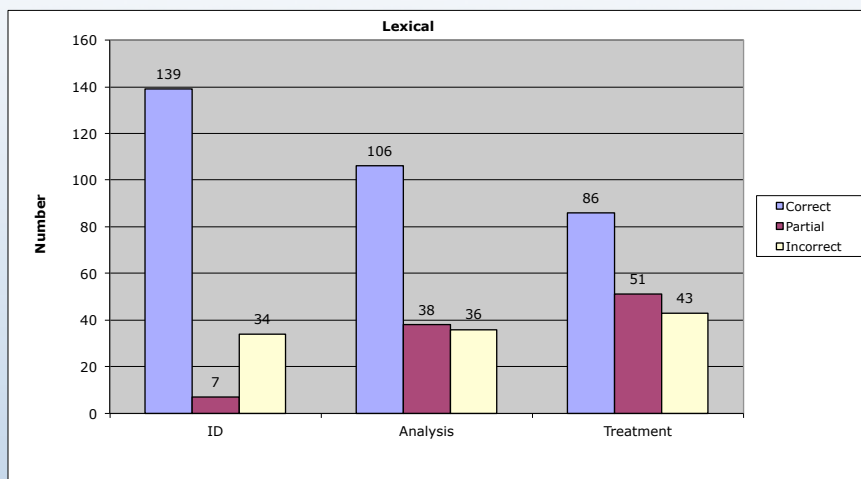
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Results: Grammar



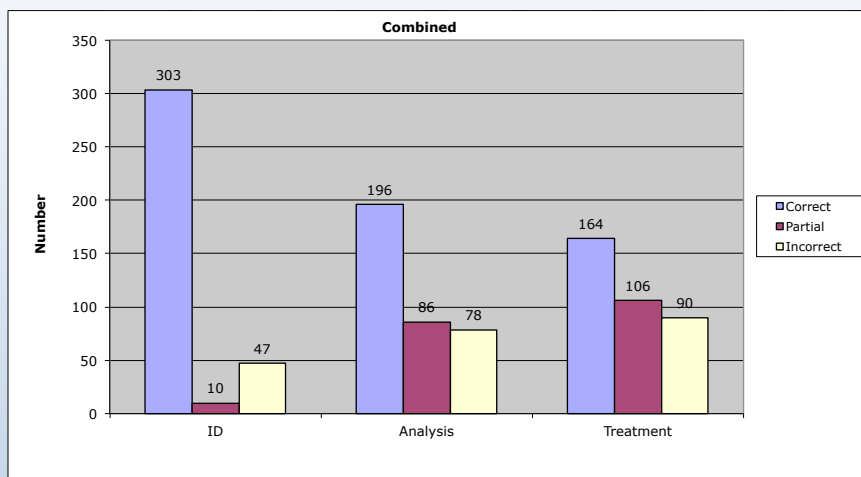
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Results: Lexical



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Results: Grammar & Lexical Combined



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Results (Continued)

- Most TCs (303/360 = 84% overall) were able to correctly distinguish lexical from grammatical items (RQ 1)
- TCs had greater difficulty identifying lexical errors (77%) than grammatical errors (91%),
- but were slightly better at analyzing & treating lexical than grammatical errors
- Distinct pattern of difficulty emerged as TCs attempted to analyze and treat errors
 - Identification > Analysis > Treatment
- This pattern can be restructured into recommendations for language teacher education

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Grammar vs. Lexical (Continued)

Identifying lexical from grammatical was not always easy for us--how much more so was it for TCs?

Lexical or grammatical?

- Participial adjectives (**I was frightening and did not know what to do.*)
- Non-count vs. count-noun plurals (**learn vocabularies; *give advices*)

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Areas of Difficulty in Analysis (RQ2)

- Over-reliance on L1 Transfer as analysis
 - Negation: *didn't learn nothin'* (could be TL input)
- Tendency to jump to first explanation
 - Tendency to blame L1
 - Tense: TC IDs past tense issue, but fails to recognize how tense combines with adverbs to create S's intended meaning
- Lack of depth of thought/knowledge about language in general
 - Prepositions—focus only on spatial meanings instead of uses that S was trying to express, e.g., *in addition* explained as spatial *in*
- Analyzes incorrect aspect of a grammar point
 - Focus on explaining/teaching forms of *BE*, rather than on *BE* as part of progressive aspect

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Areas of Difficulty in Analysis (continued)

- Seeming relatedness of two words leads TC to assume they are two forms of same item
 - *appropriate vs. appropriated*
- Assumptions made (failure to inquire) about S's meaning & intent leads to incorrect analysis
- Failure to look at S's entire essay for patterns of usage & evidence of S's understanding of language
 - Incorrect irregular past tense may not mean S needs to learn when to use past tense—S may just need to learn the form for that particular verb

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Areas of Difficulty in Treatment and Design of Instruction (RQ3)

- Treatment doesn't match S's error
 - Explanation or activity is overly simple or complicated for learner's level or isn't like the original error
- Treatment of lexical errors as if they were grammatical
 - Collocational error treated with random array of new collocations and idioms
- Scattershot approach to instruction
 - Error in use of future modal was treated with explanation of all modals
- Inappropriate referral to unhelpful resource
 - Telling S to look up 2 words in a dictionary to see how they differ (dictionaries don't usually contrast 2 particular words; S probably made the error that way in the first place)

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Limitations of the study

- These data were self-reported; they may not reflect what actually occurred with the S
- Each TC worked with a different S, and a different writing sample: student essays & errors varied
- TCs selected their own errors to address; some took on more challenging errors than others
- But, the task was real—one that TCs face

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Recommendations

- TCs need explicit instruction on lexico-grammatical structures and error correction
 - Which errors to correct, when to correct, & why
 - Need modeling and practice in:
 - Error identification (singling out errors, what IS an error)
 - Error analysis (spelling, phonological, lexical, grammatical)
 - How to use “easy” language to explain errors/structures
 - Need to fit treatment to error type: grammar vs. lexical
 - Grammar errors typically require instruction of a pattern
 - Lexical errors typically require instruction of individual item
 - Need to fit treatment to specific Ss
(fit explanation & instruction to S’s level & needs--which means practice in identifying S’s level: age, language level, maturity)

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Recommendations (continued)

- TCs need to be taught about sources of error other than student’s L1--overgeneralization, transfer of training, lack of knowledge of form, testing hypotheses (inconsistency)
- TCs need training in using appropriate resources
 - Dictionaries (bilingual, monolingual, collocational learner dictionaries, etc.), when and when not to use
 - Consult peers/colleagues for judgments on grammaticality, word choice, differences btw. similar words
 - Electronic/online corpora (google, COCA, & others)
 - Students’ intent & existing knowledge
 - Other online resources, e.g., Lextutor, AWL/other word lists
 - Useful research resources, e.g., Swan and Smith (2001), LGSWE (Biber et al, 1999)

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Selected References

- Andrews, S. (2007). *Teacher Language Awareness*. New York: Cambridge University Press.
- Baecher, L., Farnsworth, T., & Ediger, A. (2014). The challenges of planning language objectives in content-based ESL instruction. *Language Teaching Research*, 18 (1), 118-136.
- Bartels, N. (2005). Applied Linguistics and Language Teacher Education: What We Know. In: N. Bartels (Ed.) *Applied Linguistics and Language Teacher Education*. Dordrecht: Kluwer.
- Bartels, N. (2009). Knowledge about language. In A. Burns & J. Richards (eds.), *The Cambridge guide to language teacher education* (pp. 125-134). Cambridge: CUP.
- Biber, D., Johansson, S., Leech, J., Conrad, S., & Finegan, E. (1999). *Longman Grammar of Spoken and Written English*. Harlow, England: Longman.
- Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of Second Language Writing*, 17 (2), 69-124.
- Doughty, C., & Williams, J., Eds. (1998). Focus on form in classroom second language acquisition. Cambridge: CUP.
- Ellis, R. (2002). The place of grammar instruction in the second/foreign language classroom. In E. Hinkel & S. Fotos, (eds). *New perspectives on grammar teaching in second language classrooms* (pp. 17-34). Mahwah, NJ: Lawrence Erlbaum.
- Ferris, D. (2002). *Treatment of error in second language student writing*. Ann Arbor: University of Michigan Press.
- Ferris, D. & Hedgcock, J. (1998). *Teaching ESL composition: Purpose, process, and practice*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Johnston, B. and Goettsch, K. (2000). In search of the knowledge base of language teaching: Explanations by experienced teachers. *The Canadian Modern language Journal*, 56, 3: 437-468.
- Johnson, K. (2000). Innovations in TESOL teacher education: A quiet revolution. In K. Johnson (Ed.), *Teacher education* (pp. 1-7). Alexandria, VA: TESOL.
- Lyster, R. (2007). Learning and Teaching Languages Through Content: A Counterbalanced Approach, John Benjamins, Amsterdam.
- Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*, 19, 37-66.
- Purpura, J. E., & Turner, C. E. (2013). Learning-oriented assessment in classrooms: A place where SLA, interaction, and language assessment interface. ILTA/AAAL Joint Symposium on "LOA in classrooms."
- Schmidt, R. (2010). Attention, awareness, and individual differences in second language learning. In W. Chan, S. Chi, K. Cin, J. Istanto, M. Nagami, J. Sew, T. Suthiwan, & I. Walker, (Eds.), *Proceedings of CLaSLC 2010*, Singapore, December 2-4 (pp. 721-737). Singapore: National University of Singapore, Centre for Language Studies.
- Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learners' acquisition of articles. *TESOL Quarterly* 41(2), 255-283.
- Swan, M., & Smith, B. (2001). *Learner English*. New York: Cambridge University Press.
- Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning*, 46: 327-369.
- AWL: <http://www.victoria.ac.nz/lals/resources/academicwordlist/>
- COCA Corpus: <http://corpus.byu.edu/coca/>
- Lextutor: <http://www.lexutor.ca>

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Thank you for your kind attention!

Questions/Comments?

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