Using Error Codes to Help Students' Linguistic Accuracy in L2 Academic Writing

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Abstract

A perennial topic for L2 writing teachers and researchers is the effectiveness of various types of corrective feedback (CF) in helping learners improve grammatical accuracy in academic writing. However, no conclusive results have been reached on this topic so far. This study aims to examine the efficacy of using error codes to guide high immediate/advanced ESL learners to revise their essay and to what extent error codes facilitate students develop grammatical accuracy over time. Thirty six students were involved in the study. They finished three essays in a semester. Grammatical errors in each draft 1 (D1) were marked with error codes known to the students, and they revised the D1s in class. The results indicate that: 1) participants attended to 85% of errors marked with error codes; 2) error rate decreased consistently from essay task 1 to 3; 3) some types of error (e.g., articles, word forms, fragments) were more amenable to error coding than others (e.g., word choice, part of speech, sentence structure). The findings caution L2 writing teachers not to give a single type of CF to all types of errors in students writing. Instead, different lexical, morphological, syntactic errors merit differential treatment.

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Background

For L2 academic writing teachers, an important curriculum objective is to help students write accurately. One way to achieve the goal is through proving meaningful corrective feedback (CF) to students' writing. However, which type(s) of CF is more useful than others remains controversial among researchers. For high intermediate/advanced students at Level 5 and 6 in PIE, one of the pressing issues is to reduce the number of errors in their writing assignments, learn to use appropriate and sophisticated words and diversified syntactic structures to express complex ideas adequately and efficiently. However, this can be a daunting task for both writing instructors and students taken into account the effort and time it demands. Using error codes can be one viable option because it is less time-consuming compared to the provision of grammatical rules reminders. Meanwhile, error codes give students some hints in terms of the nature of the error and how to do error correction independently. Only a few studies have been undertaken on the facilitating effects of error codes in developing L2 learners' grammatical accuracy (Aliakbari & Toni, 2010; Ferris, 2006; Lalande, 1982; Rahimi, 2009; Robb et al., 1986; Sampson, 2012; Semke, 1984; Vyatkina, 2010), and the results are mixed. The purpose of this study is to examine the effectiveness of using error codes to help high intermediate/advanced ESL learners to reduce the number of linguistic errors (lexical, morphological, and syntactic) in academic writing assignments during revision and long-term improvement over one semester.

Research Questions

RQ 1: *Does the use of error codes help high-intermediate/ advanced ESL students improve their linguistic accuracy in revising and over time?*

RQ2: *Which type(s) of areas are more "treatable" with error codes and which types of errors are less "treatable"?*

Methods

Thirty-six students from Level 5 at PIE who completed all three essay-writing tasks through the semester constitute the sample. All the essays are from the TOEFL topic pool in *Criterion*® selected by the two Writers' Workshop instructors. Essays were finished in class and errors students' draft 1s were coded by the researcher using an error coding scheme shared with the students. The revision was completed in class with the aid the course instructor. Then, the 2nd drafts were coded by the researcher for the purpose of comparing the changes from draft 1 to draft 2 in terms of 15 types of errors. Below are the major findings for the two research questions.

Results

As shown in Table 1 below, mean total number of words in the three essays is 324.57, and the mean error rated per 300 words is 18.38. With respect of revision/editing results, students successfully corrected 72.32% of the errors marked with error codes in their draft #1, and they attempted to correct another 12.80% of the errors pointed out but with limited success. In total, 85.10% of the errors indicated with error codes were attended to by the students.

Table 1

Descriptive Statistics of the Revision Results of the Three Essays

Writing Tasks	Number of Words		Error Rate (normed to 300 words)		Successful Correction (%)		Attempted but Unsuccessful Correction (%)		Total Attended (%)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
1	328.73	96.27	19.83	8.28	72.95	24.23	8.20	8.05	81.13	22.65
2	307.50	77.12	18.67	9.49	71.60	17.48	16.34	11.07	87.94	16.07
3	340.81	87.44	17.11	9.80	71.57	21.26	14.13	12.14	85.70	17.24
Total	324.57	88.59	18.38	9.22	72.32	21.20	12.80	11.07	85.10	19.15

In terms of the development in writing accuracy over time, students' error rate per 300 words decreased from essay #1 to #3 and the standard deviations increased constantly, indicating that students' accuracy in language use improved continuously; however the gap among students in terms of output accuracy was widening throughout the semester. In other words, some students were more successful in making use of the codes to correct errors and improve accuracy than others. On the other hand, students' successful error correction rate decreased from Essay #1 to #3 and the percentage of attempted but unsuccessful correction increased. The reason behind this seemingly disappointing results is that students were more comfortable using the Error Codes Table (with definition and examples of 19 types of errors and examples for how to revise each type of error) as they became more familiar with it. The higher successful revision rate for Essay #1 was partially attributed to teachers' extensive help. In comparison, students asked fewer questions and demonstrated more autonomy when revising Essay #2 and #3. The results indicate that the error types amenable to error codes are articles, idiomatic expressions, word form, verb tense, garbled sentences (unclear meaning caused by more than one error in a

sentence), and fragments. Number of errors in verb form appeared to increase from T1 (essay writing task 1) to T3 (essay writing task 3). No clear patterns were observed for word choice, preposition, pronoun, part of speech, sentence structure, word order, comma splice and run-on sentences.

Table 2

Occurrence Frequencies of 15 Types of Errors from Essay #1 to #3

		wc	art	prep	pron	id	wf	pos	vf	vt	gs	ss	frag	wo	cs	ro
T1	*M*	2.92	2.06	1.58	0.72	1.08	3.28	1.31	4.31	0.75	1.17	0.81	1.72	0.44	1.78	0.86
	SD	2.08	2.06	1.83	1.06	1.27	2.89	1.49	3.34	1.20	1.63	0.89	1.72	0.73	4.28	2.18
T2	*M*	2.06	1.86	0.92	0.92	0.67	2.06	1.39	4.75	0.72	0.36	0.33	1.17	0.39	1.39	0.83
	SD	1.66	1.58	0.88	1.28	0.76	1.82	1.55	3.40	1.99	0.99	0.60	1.38	0.62	2.20	1.58
T3	*M*	2.92	0.89	0.97	0.69	0.25	1.53	1.19	5.92	0.61	0.28	1.58	1.03	0.67	1.67	0.94
	SD	1.98	1.06	1.52	0.89	0.60	1.80	1.56	4.46	0.90	0.66	1.78	1.28	0.99	2.82	1.66

Relevance to PIE and Second Language Learning

The pedagogical implications of the current research are three-fold: first, error codes could be a valuable tool to provide CF to high intermediate/advanced ESL learners' academic writing; 2) certain lexical, syntactic, and morphological errors are more "treatable", and others seem "non-treatable"; therefore teachers should probably give different treatments to different types of students errors; 3) training students to use the error codes table (with definitions, examples, and suggestions for how to revise each type of error) is very important in helping students become independent in editing their own essays.

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