Research Article

Identifying Grammatical Errors and Mistakes via a Written Learner Corpus in a Foreign Language Context

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Abstract: Foreign language learners of English struggle to apply grammar rules in writing despite prolonged training focusing on grammar. This error analysis study examines English as a foreign language (EFL) learners' grammatical errors through a written learner corpus containing essays written by Level 2 and 3 students in a language program at a state university. It is corpus-driven research that utilizes a specially built corpus, including 506 essays with around 190.000 word tokens. The study also aims to reveal whether they improve within a term. Using James' (1998) taxonomy of errors, the data were analyzed via a corpus tool, "AntConc". The results of descriptive analysis for error frequency showed that the most common grammatical errors were related to verb conjugation, prepositions, articles, grammatical numbers, and voice, respectively. The study also showed no significant progress for Level 2 learners, while Level 3 learners slightly improved by rectifying the number of errors.

Keywords: *Corpus Linguistics; error analysis; grammatical errors; corrective feedback*

INTRODUCTION

Among the four main skills, writing can be regarded as the area where teachers can provide the most concrete and useful feedback to their students' performance (Hartshorn et al., 2010). Writing in a second language (L2) is a multidimensional skill that includes syntactic and lexical mastery. According to Silva (1990), "writing is a complex, recursive, and creative process or set of behaviors that is very similar in its broad outlines for first and L2 writers" (p. 8). Therefore, students are expected to combine suitable vocabulary and accurate grammar to create coherent and cohesive texts in a foreign language. As the main focus of the current study, L2 grammar knowledge has a critical role in writing. Using a variety of grammatical structures accurately enables language learners to express their ideas in a more sophisticated way. Nevertheless, there is a debate about the impact of grammar teaching on writing performance. Teaching grammar is often underestimated because of its structural and prescriptive nature. Some researchers (Andrews et al., 2006; Krashen, 1982) believe that it is impossible to convey formal grammar knowledge to writing. They also claim that grammar teaching has no direct influence on writing development. However, EFL learners struggle to apply grammatical knowledge to writing when these two skills are taught separately. Others, such as Celce-Murcia (1991), Myhill et al. (2012), and Cawley (2017), suggest that contextualized grammar instruction enhances writing skills. According to Weaver (1998), students must be guided in implementing suitable grammatical structures in their writing. As Xavier et al. (2020) concluded, teaching grammar assists students in meaning-making processes when making linguistic choices during writing. Therefore, there is a need to examine the effect of grammar on L2 writing

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performance, especially by analyzing the most common errors in different contexts, such as Türkiye, where EFL students have difficulties in applying grammar rules to writing, as indicated below.

EFL students commonly encounter problems during writing activities that can be categorized as linguistic, psychological, cognitive, and pedagogical (Fareed et al., 2016). From this perspective, writing is challenging for Turkish EFL learners for various reasons, such as linguistic incompetence or L1 interference. It is perplexing that second language learners commit grammatical errors even in the most basic structures despite having been taught grammar for many years. When asked to write in English at school, they might spend minutes writing one grammatically correct sentence. As a common problem for Turkish EFL students, grammatical errors in writing directly impact language learning by affecting the quality of their written production and decreasing student motivation (Gazioğlu, 2019). While transferring L2 grammar knowledge into their writing, it is natural for second language learners to make mistakes with the effect of their first language (Selinker, 1972; Corder, 1981). Therefore, it can be claimed that students' progress might be facilitated through error correction activities in writing and grammar lessons by helping them notice their common problems. Such weaknesses can also be revealed through continuous assessment and the assistance of the teacher's feedback. Although the most problematic grammatical subjects for language learners may not exhibit considerable variation, it might be helpful to investigate the issue in different contexts where different approaches to grammar and writing instruction are held.

Along with the advancements in information technology and corpus linguistics, it is now possible to analyze language errors through learner corpora, which can enable analyzing large-scale data and help both learners avoid these mistakes and teachers envisage complications their students may face. Likewise, as foreseen by Granger (2009), Corpus Linguistics has already become the "bona fide" input format in SLA studies. As Zhong and Wakat (2023) suggested, more corpus-integrated classrooms are needed for a better language learning experience. Accordingly, detecting the most commonly committed grammatical errors in writing and exploring the underlying reasons will benefit the foreign language teaching process from several aspects. Overall, acquiring writing and grammar skills has aroused considerable interest in SLA research, where their interactions are also examined. However, research on the issue seems scarce, as can be seen from the research synthesis provided below after drawing a theoretical framework.

Theoretical Framework

As one of the building blocks of a language, studying grammar has a critical role in second language learning. Different approaches have been presented in the field, such as the Grammar-Translation Method, one of the oldest approaches in language teaching, which requires learners to study grammatical rules deductively. Apart from traditional approaches to language learning, modern methods, such as the Communicative Approach, include implicitly teaching grammar and focusing on usage rather than accuracy. As a result, because one of the main purposes of teaching grammar is enhancing the language users' ability to convey their ideas in oral and written form, applying accurate grammar rules is an essential goal for EFL students to achieve in writing.

Despite being interchangeably used in daily language, linguistics researchers have attempted to distinguish between "error" and "mistake". As suggested by Corder (1967), mistakes are related to problems in performance, just like a slip of the tongue or pen. However, errors are systematical complications that indicate competence-related problems, contributing to the learner's progress (Corder, 1967). Some possible reasons for learner errors and mistakes, in general, are listed by Norrish (1983) as follows: lack of attention, anxiety, L1 interference, overgeneralization, wrong translation, difficulties in the application of rules, and problems arising from the course material or the teacher. However, as Botley (2015) states, it is challenging to distinguish errors and mistakes and difficult to define them. Moreover, it is not always possible to understand if a lack of attention or knowledge causes a grammatical problem. Therefore, in relation to the aim of this study, students' grammatical errors and mistakes in writing are analyzed together through a learner corpus.

The Contrastive Analysis developed by Lado (1957) is based on the assumption that learning a foreign language resembles learning the mother language; thus, their similarities and differences positively or negatively impact learning the target language. Therefore, problematic areas can be foreseen and addressed in the curriculum to provide more effective training to the students. Likewise, Corder (1981) argues that second-language learners' errors served as indicators of their linguistic system under construction and provided valuable data for understanding the core principles of the built-in syllabus. Thus, committing errors is a strategy and a sign of progress in L2 acquisition. Hence, he suggests that these errors must be analyzed within the scope of Comparative Linguistics. His views are also related to "Interlanguage Theory", which Selinker (1972) introduced to applied linguistics. Teachers already explore their students' errors intuitively, as a part of their job, for practical reasons such as adapting their teaching styles, developing suitable course materials, or providing extra practice. However, it requires systematic observation to reveal learners' errors, understand their reasons, and offer solutions to the determined problems. Thus, Contrastive Analysis (CA), Error Analysis (EA), and Interlanguage (IL) are the key investigation methods for analyzing errors and ensuring effective ESL instruction (Hsu, 2013).

The main steps of error analysis are defined by Corder (1981, p. 15) as "recognition of idiosyncrasy", "accounting for a learner's idiosyncratic dialect", and "explanation". The branch of applied linguistics that undertakes these processes is called "Error Analysis". As cited in Lennon (2008), the stages of error analysis can be outlined as (a) choosing a corpus of language, (b) determining the errors in the corpus, (c) categorizing the determined errors, (d) interpreting the psycholinguistic reasons of the errors, and (e) evaluating the error (ranking the criticality). The error taxonomies that are utilized most commonly in the EA studies belong to Dulay et al. (1982), who classify errors into four: linguistic category, surface strategy, comparative, and communicative effect. Based on their model, James (1998) develops a new classification, adding a new category to the sub-categories in the Surface Strategy Taxonomy (omission, addition, misinformation, and misordering): blends. In line with the aims of this study and as a relatively more recent model, James' (1998) classification, especially the categories on the morphological and syntax errors, is adapted and employed for the corpus-driven error analysis.

Previous Research

Research shows that even advanced learners of English make basic grammatical mistakes after many years of instruction, and the main reason for this is L1 interference. Şimşek (1989) explored preparatory school students' written errors by applying contrastive error analysis and reported that intralingual errors outweighed interlingual ones, mostly indicating problems in articles and prepositions, emphasizing the importance of accuracy in grammar teaching. Şahin (1993) also focused more specifically on tense and aspect errors in Turkish university students' papers and found that most errors were semantic/pragmatic, revealing that the students had difficulty applying verb tenses and aspects. The study concluded that grammatical errors such as wrong tense and aspect use can be avoided thanks to contextualized grammar instruction. According to Yüksel's (2007) study that investigated English Language and Literature students' grammatical errors in writing, the wrong use of prepositions was observed to be the most recurrent error. In another study, Kırkgöz (2010) analyzed learners' written errors to discover likely reasons for errors and showed that most errors were interlingual, signaling L1 interference as the basic reason. Similarly, Başöz and Aydın (2011) identified grammatical mistakes in advanced EFL students' papers and revealed common problems with grammatical structures such as tenses, verbs, adjectives, adverbs, conjunctions, articles, relative clauses, and prepositions. They suggested that teachers should facilitate the learners by giving clear corrective feedback and providing opportunities where students can practice writing creatively and descriptively.

A related body of research confirms that grammatical errors made by students of writing often stem from the L1 effect and the lack of competence in the target language. For example, Köroğlu (2014) showed that Turkish EFL students committed many interlingual errors, especially because of

L1 interference. Likewise, Mede et al. (2014) investigated word order by Turkish EFL learners to explore the transfer effects of Turkish learners of English and revealed that learners transfer word order patterns from their first language to the target language, implying a strong effect of these structures on their syntactic development. Finally, in their study, Kırmızı and Karcı (2017) examined linguistic and lexical errors in a classroom exercise written by Turkish EFL students, and the common mistakes in articles, word choice, prepositions, word order, and subject-verb agreement were attributed to the deficiency in grammatical knowledge and L1 interference.

Thanks to corpus-based error analysis research, most common grammatical mistakes are reported, and this allows teachers to respond to students' needs as they not only identify errors made by foreign language learners but also offer insights on possible reasons for these errors and provide some solutions to overcome these linguistic problems. Recently, Demirel (2017) employed a Computer-aided Error Analysis approach and showed that the most problematic grammatical units for the students are articles and determiners. It was asserted that the students should be trained to use related software to write and revise their essays, taking more responsibility in their learning process. In his prominent study that established a connection between the types of errors committed and students' proficiency levels, Can (2017) focused on errors related to verb forms in essays written by Turkish EFL learners and found incorrect tenses of verbs, wrong verb choices, wrong verb forms, missing verbs, and verb agreement errors as the most common verb errors. Taşçı and Aksu Ataç (2018) also examined grammatical errors through a corpus of essays written by Turkish university students and especially focused on the sources of errors and showed that interlingual errors (mother tongue interference, in general) were common. The wrong preposition used by the students was also a result of L1 interference, implying "negative transfer." Furthermore, Kazazoğlu (2020) found that in addition to the impact of L1, there can be some other factors contributing to grammar errors in writing, such as the use of bilingual dictionaries, direct translation methods, and poor language skills. To sum up, bringing out the significance of error analysis, these studies suggest that learner errors should be an advantage for both teachers and students. In the current context, where the teaching medium is English, grammar and writing skills are taught separately. Differentiating from the contexts of previous similar studies in Türkiye, it is expected to observe if these factors play a role in terms of the frequency of grammatical errors committed by EFL students in writing, in addition to any potential progress in terms of minimizing the number of these errors within a specific period.

In light of the previous research findings on error analysis studies in the Turkish EFL context, it can be stated that students commit errors and mistakes in similar grammatical aspects due to some reasons, such as L1 interference, lack of competence, or insufficient practice. Nevertheless, compiling a learner corpus in a higher education institution with English-medium instruction and an exceptional language program may yield different results. Therefore, this study employs Corpus Linguistics techniques to examine grammatical errors made by Turkish EFL students in higher education through a written learner corpus. In addition to detecting the most frequent grammatical errors, as the second facet of the study, it is also intended to show students' progress within a specific period based on how much they corrected their errors as a response to the teacher's feedback. With those concerns in mind, the current study aims to identify grammatical errors and mistakes via a written learner corpus in the EFL context and seeks answers to the following research questions:

- What are the most common grammatical errors or mistakes Turkish EFL students make in the writing process?
- Do EFL learners show any improvement by decreasing the number of grammatical errors or mistakes in writing within a term?

METHOD

Research Context

This study systematically examines grammatical errors during written performance in the EFL learning process. The study uses the analytic approach to examine the underlying factors and processes that lead to the errors and assess teacher feedback's impact on potential student improvement. The purpose of the study is heuristic since it is controlled and manipulated in several ways as a data-driven exploration without preconceptions but with the possibility to generate hypotheses for further investigation. The focus of the study is limited to grammatical errors, but the variables such as student proficiency level and nationality are controlled to eliminate subject awareness through the use of data from previously completed courses. It also relies on the researcher's subjective understanding and knowledge of grammatical errors in organizing and interpreting the data to be analyzed. Finally, the data for this study consisted of student essays, which were collected and analyzed through a corpus tool.

Participants

The participants of the study were 208 Turkish EFL learners, whose essays were compiled to build a special learner corpus, studying at a language preparatory program offered by a state university in Turkey. Five groups of students from each level were randomly chosen during the sampling stage. Considering the features of the present educational context, they were Level 2 and Level 3 Writing students, which meant they had English proficiency levels between B1 and B2 (intermediate) according to the Common European Framework of Reference for Languages (CEFR) standards. Level 1 students were not involved in the study because they produced paragraphs, not essays, which would make it incomparable with the other two levels. In Level 2, out of 106 students, 43 (40.57%) were male, while 63 (59.43%) were female. In Level 3, there were samples from 102 students: 49 (48.04%) were male, and 53 (51.96%) were female. The ages of the students ranged between 17 and 35. All participants were Turkish EFL students whose future departments varied: 114 students were from the Faculty of Engineering (53.77%), 42 students were from the Faculty of Architecture (19.81%), 29 students were from the Faculty of Life and Natural Sciences (13.68%), and 23 students were from the Faculty of Managerial Sciences (10.85%). The information about the participants was gathered retrospectively through the learning management system used in the research context. Although some of these independent variables did not play a significant role in answering the research questions, attention was paid to sustaining a balance, especially regarding the number of essays between two levels, while creating this learner corpus. The purposeful sampling method was used as the focus was on Level 2 and 3 students' essays, and the convenience sampling method was utilized because the essays were gathered from colleagues who volunteered to help the researcher as the researcher's own writing groups' essays were not sufficient in number to compile the corpus.

Instruments

The data come from a written corpus of learners, as the researcher named Learner Corpus of Student Essays (LECOSE), which was compiled exclusively for this study. LECOSE comprised 506 student essays, which were written in seven different genres by Level 2 and Level 3 learners studying at a language program in a state university. Accordingly, there are 258 Level 2 essays and 248 Level 3 essays in the main corpus created for the study, which comprises nearly 191.000 word tokens. The Level 2 essays contain around 76.500 word tokens, while the Level 3 essays contain about 114.000 word tokens. LECOSE was compiled to answer the first research question, containing all the essays from both levels. In addition, one sample group was chosen from each level to answer the second research question, and sub-corpora were created to examine the papers written individually. These temporary mini corpora for each level were organized from the main corpus during the analysis stage. As a result, the current study utilized one main specifically built written learner corpus and individually arranged sub-corpora to compare changes to achieve its objectives.

Procedure

The data for the present study were collected from the students at the School of Foreign Languages at a state university. The essays written as continuous assessment tasks by students who took levels 2 and 3 Writing courses were compiled to build a learner corpus, LECOSE. The data were chosen through convenience sampling method as the students previously submitted their essays to the researcher who taught Writing 2 and Writing 3 courses during that academic year. The data collection process started with obtaining approval from the research ethics committee. Then, the online versions of the student essays downloaded as bulks from the learner management system were compiled by convenience sampling to build a learner corpus. The samples were classified into different folders and organized based on three categories: proficiency levels (W2 and W3), groups (classes), and tasks, which are the specific essays written for different genres. Table 1 shows the genres of the student essays, writing topics, and word tokens for each level:

Table 1. Genres and writing topics by level

Level	Genre	Sample Topics	Word Token (~)
2	1. Compare & Contrast 2. Graphic Description 3. Problem & Solution 4. Classification	Aluminum vs. Glass Household Plastic Collection Plastic Pollution Uses of Plastic	76.500
3	1. Process 2. Cause & Effect 3. For & Against	Seawater Desalination / Rainwater Harvesting Urbanization / Water Scarcity Drones / Voting Age / Social Media Use	114.000

As suggested by Biber (1993), several aspects are to be considered during the corpus design process: the number of texts, text types, the selection of text samples, and the length of text samples. Therefore, considering the limitations of data preparation through tagging, this written corpus was built with 506 student essays from Level 2 (258) and Level 3 (248). Thus, the corpus size is considered manageable and large enough to investigate the proposed research questions. Although the anonymity of the participants was maintained and variables such as age or gender were not a concern in this study, Burnard (2005) expressed that metadata could be useful in correlating data and expanding the corpus for further studies. Thus, the researcher wrote down the number of students by gender in each level and group and numbered all students within the groups to match them easily while answering the second research question, which required comparing grammatical mistakes found in different essays written by the same students. In addition, both convenience and purposeful sampling methods were applied because the researcher, who has been teaching grammar (*Language Awareness*, as described in the curriculum) and writing courses, is a foreign language instructor in the research context.

Data Analysis

The data analysis stage of this study was conducted through a corpus concordance program called AntConc 3.5.8., a free, open-source software. As described by its developer, Anthony (2005), it provides "a powerful concordancer, word, and keyword frequency generators, tools for cluster and lexical bundle analysis, and a word distribution plot." (p. 729). Because the present research aims to reveal the most common grammatical errors in students' papers, the chosen software can generate a list of all the occurrences of a tagged error in the learner corpus with its practical interface. As the first data analysis stage, the learner corpus essays were thoroughly read and tagged by the researcher to detect grammatical errors. In this sense, the aforementioned taxonomy for grammatical errors by James (1998) was adapted and employed. The table below shows the error categorization scheme, error tags, and some sample sentences containing these error types:

Table 2. Error categorization scheme

Error Category	Error Type	Error Code	Sample Sentence
Omission	articles	OM_ART	*You need ^ pencil.*
	auxiliary verb	OM_AV	*I ^ waiting for the bus.*
	conjunctions	OM_CON	*We didn't buy the car ^ it was expensive.*
	determiners	OM_DET	*Can you help me carry ^ bags?*
	modals	OM_MOD	*She ^ study hard to pass the exam.*
	nouns	OM_NOUN	*There is a ^ on the floor.*
	objects	OM_OBJ	*I left my ^ at home.*
	prepositions	OM_PREP	*Let's meet ^ 9 p.m.*
	pronouns	OM_PRON	*He fell and broke ^ leg.*
	quantifiers	OM_QUA	*I need ^ sugar to make a cake.*
	subjects	OM_SUB	*^ Stayed in the library for hours.*
	verbs	OM_VERB	*The house ^ five rooms.*
Overinclusion	double-marking	OV_DM	*He **doesn't** <u>likes</u>…* *Many students are **<u>lefting</u>** school.*
	simple addition	OV_SA	*There are **<u>some a few</u>** differences.* *I called **<u>the my</u>** friend.*
Misselection	archi-forms	MISS_ARF	**<u>that</u>** *cars, <u>in</u> the bus*
	regularization	MISS_REG	**buyed**, *peoples*
	alternating forms	MISS_ALF	*I <u>**seen**</u> her yesterday.*
Misordering	adverbials,	MISO_ADV	*He <u>every time</u> comes late home.*
	interrogatives	MISO_INT	*Tell me where <u>did you go.</u>*
	adjectives	MISO_ADJ	*The words <u>little</u>…*
Blends	Improper combinations of words	BLEND	<u>*According to* Erica's opinion</u>, …

Note: All categories have sub-categories, such as OV_SA_PREP, MISS_ALF_CONJ, and MISO_VERB. Nouns and objects were used interchangeably in the tagging process. While CON was used to refer to "conjunctions," CONJ was used to mean "conjugation."

To ensure interrater reliability, the researcher collaborated with a native speaker instructor and a local instructor from the research context. After familiarizing themselves with the error categorization scheme, the instructors tagged one student paper from each level. Calculating the percentage of agreement between the raters as 80 for Level 2 and 86.7 for Level 3 (see Table 3 and Table 4), the researcher confirmed that the error categorization scheme operated efficiently and continued to tag the grammatical errors in the students' papers.

Table 3. Percentages of agreement by error categories for level 2

Error Category	Rater 1	Rater 2	Rater 3	Agreement (%)
Omission	1	1	1	100
Overinclusion	1	1	0	66.67
Misselection	1	1	1	100
Misordering	0	1	1	66.67
Blends	1	0	1	66.67
Average				80

Table 4. Percentages of agreement by error categories for level 3

Error Category	Rater 1	Rater 2	Rater 3	Agreement (%)
Omission	1	1	0	66.67
Overinclusion	1	1	1	100
Misselection	1	1	1	100
Misordering	1	0	1	66.67
Blends	0	0	0	100
Average				86.66

After the manual tagging process for all the essays was completed, all the papers aimed at building the main corpus were uploaded to AntConc in bulk. Thus, RQ1 would be answered for revealing the grammatical errors that students most commonly make. Each error category tag was searched through AntConc, and the queries were examined to list the frequencies of these errors. As for RQ2, one group from each level was taken as a sample, and the individual papers (1-3 and 1-4) within the groups. The Level 2 group selected to answer the second research question from LECOSE-2 included 68 papers written by 17 students (F=8, M=9). A total of 75 essays written by 25 students (F=11, M=14) were chosen from LECOSE-3 to investigate the development of Level 3 students in writing in the way of making grammatical mistakes. They were separately uploaded to AntConc to check the frequency of each type of error. The number of mistakes recorded manually was compared from 1 to 3 and 1 to 4 for each student at both levels. In this way, it was expected to see to what extent the students corrected their errors within a level. It was anticipated that the papers would have fewer occurrences of the same type of grammatical errors towards the end of the term, thanks to the effect of the teacher's corrective feedback.

RESULTS

Common Grammatical Errors and Mistakes Made by Turkish EFL Students

To trace the most common errors and mistakes committed by Level 2 learners, separate browsing actions were performed for different error types. Thus, the tables below show students' written errors and mistakes as (a) ranked in order of main types and (b) of sub-categories in each error type.

Table 5. Frequency of grammatical errors by level 2 students

Rank	Error Category	Number of Incidences	%
1	Misselection	2032	48.20
2	Omission	1220	28.94
3	Overinclusion	601	14.25
4	Misordering	187	4.43
5	Blends	175	4.15
Total number of errors: 4215			

The overall analysis of grammatical mistakes in LECOSE-2 reveals that the students committed 4216 errors in their written production. Most of the mistakes (48.20%) were due to the *misselection* of grammatical elements, which was followed by the *omission* of the elements 28.94% and the *overinclusion* of them with a percentage of 14.25. It was observed that the rates of mistakes related to *misordering* the elements and miscellaneous mistakes classified as *blends* are close to each other at 4.43% and 4.15%, respectively.

As the second phase of the data analysis, mistakes detected in the essays forming the LECOSE-3 were examined through AntConc. Several queries were conducted for the subcorpus based on the defined error categories and types. According to the comprehensive analysis conducted on grammatical errors in LECOSE-3, 3916 mistakes from the five main categories of error were found in

Level 3 essays written by the students. As shown in Table 6, the most prevalent errors, with 43.36%, arose from the grammatical components that were chosen incorrectly (misselection). Subsequently, errors emerging due to the omission of elements accounted for 30.97%, whereas the excessive inclusion of elements (overinclusion) depicted 16.36% of the total errors. Besides, it was indicated that errors related to misordering the elements and errors counted as blends displayed quite close frequencies, making up 4.74% and 4.54%, respectively.

Table 6. Frequency of grammatical errors by level 3 students

Rank	Error Category	Number of Incidences	%
1	Misselection	1698	43.36
2	Omission	1213	30.97
3	Overinclusion	641	16.36
4	Misordering	186	4.74
5	Blends	178	4.54

Total number of errors: 3916

Improvement of Turkish EFL Learners in Correcting Grammatical Errors in Writing

As shown by Figure 3.12, 10 out of 17 students (59%) made fewer errors in their final task, while seven students (41%) increased the number of mistakes they committed. A linear comparison of grammatical errors by Level 2 students in each category based on tasks to show change in time can also be seen in Table 7. However, the average number of mistakes committed from Task 1 to Task 4 might not significantly improve. Therefore, a statistical analysis was also conducted to understand if there was remarkable progress.

Table 7. Linear comparison of the frequency of grammatical errors by level 2 students

Error Category	Number of Incidences in Task 1	Number of Incidences in Task 2	Number of Incidences in Task 3	Number of Incidences in Task 4
Misselection	166	157	187	159
Omission	112	77	99	107
Overinclusion	35	42	35	40
Misordering	21	10	14	13
Blends	11	13	17	10

Table 8. Comparison of the first and the fourth essays by level 2 students

	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	T	Df	Sig. (2-tailed)
Task 1 Errors Task 4 Errors	.45	3.46	.37	-.29	1.20	1.22	84	.23

*$p < .05$

A *paired-samples t-test* was conducted to compare the number of grammatical mistakes in Task 1 and Task 4. Contrary to expectations, there was a small mean difference (M=0.45, SD=3.46), with students making more mistakes in Task 4 than in Task 1. The 95% confidence interval (-0.28 to 1.20) includes 0, and the t-statistic (t=1.22, p=0.22) is not statistically significant. These results suggest that the observed differences are likely due to random variation rather than a true difference, which means that Level 2 students did not decrease the number of grammatical mistakes they committed within a term.

As a result, the analysis unveiled no statistically significant difference between the first and the last essays that the students wrote within Level 2. Although Task 4 had slightly fewer mistakes than Task 1, the statistical data show no meaningful difference. Hence, it can be stated that there is not

enough evidence to claim progress for Level 2 students in the sample in terms of making fewer mistakes.

As for the Level 3 students' essays, 12 out of 25 students (48%) made more mistakes in their final essays, while 10 students (40%) had fewer grammatical errors for the same task. In addition, two students (8%) had the same number of errors in both tasks, and one (4%) submitted an essay without any grammatical errors for Task 3. A linear comparison of grammatical errors by level 2 students in each category based on tasks to show change in time can also be seen in Table 9.

Table 9. Linear comparison of the frequency of grammatical errors by level 3 students

Error Category	Number of Incidences in Task 1	Number of Incidences in Task 2	Number of Incidences in Task 3
Misselection	166	157	187
Omission	112	77	99
Overinclusion	35	42	35
Misordering	21	10	14
Blends	11	13	17

Table 10. Comparison of the 1st and the 3rd essays by level 3 students

	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	T	Df	Sig. (2-tailed)
Task 1 Errors Task 3 Errors	-1.20	3.67	.33	-1.85	-.55	-3.65	124	.00

*p < .05

A paired-sample t-test was conducted to compare the number of grammatical mistakes in Task 1 and Task 3. There was a significant mean difference (M=-1.20, SD=3.67), with students making fewer mistakes in Task 3 than in Task 1. The 95% confidence interval (-1.85 to -0.55) and the t-statistic (t=-3.65, p =0.00) indicate that this difference is statistically significant. These results suggest that Level 3 writing students improved from Task 1 to Task 3, reducing the number of grammatical mistakes in their written productions.

CONCLUSIONS AND DISCUSSION

The current study investigates the most common grammatical errors in students' essays utilizing specially built learner corpora, questioning any progress achieved in minimizing the number of these mistakes. The first conclusion is that the most frequent grammatical errors in the learner corpus LECOSE are related to using verbs, particularly with wrong choices for the alternating forms of conjugation, which is the proper adjustment of verbs, including gerunds, infinitives, and participles that function as verbs, nouns, adjectives, or adverbs concerning tense, mood, voice, person, and number. Most errors found in the main corpus stem from inaccuracies in conjugation, outweighing the overinclusion errors due to double marking. The conjugation errors in LECOSE include problems in subject-verb agreement, misselection of gerunds and infinitives, using tense inflections unnecessarily or indispensably, and applying voice changes inappropriately. Other verb-related errors were committed through failing to include verbs in sentences (omission), including verbs redundantly (overinclusion), locating the verbs in sentences incorrectly (misordering), and using a common verb (be, do, have) interchangeably, which distort both syntax and semantics of the sentences. The wrong uses of prepositions and articles follow conjugation errors. The fourth and the fifth most common grammatical mistakes in LECOSE are related to the use of grammatical numbers (singularity vs. plurality) and voice (active vs. passive). The second conclusion is that Level 2 students did not make significant progress in minimizing their mistakes from the beginning to the end of the term. However, there was a slight decrease in the average number of errors made by Level 3 students.

Discussion of the Findings

The findings of the current study align with prior research by Şahin (1993), Başöz and Aydın (2011), Can (2017), Demirel (2017), Ayar (2020), Özkayran and Yılmaz (2020), and Kadan (2023), who revealed that verb-related errors are the most common mistakes observed in Turkish EFL students' papers. In addition, even though comparing two proficiency levels was not among the objectives of this study, the average number of mistakes in improper conjugations by both levels slightly differed. Thus, it can be argued that a higher proficiency level in English can assist students in making fewer verb-related mistakes in writing. This finding supports the conclusion drawn by Can (2017), who claims that the increase in proficiency levels decreases the rate of verb errors, excluding some tenacious mistakes such as incorrect verb agreement and wrong verb form choice. However, Özcan (2012) notes that various aspects of an error can be affected by different variables; given this, it is hard to determine a certain factor as the source of an error. The frequent conjugation errors committed by Turkish EFL students imply that verb formation is the most crucial obstacle affecting the students' written performance. These errors, which can be spotted in low and high proficiency levels, might originate from syntactic differences between their mother tongue, Turkish, and the target language, English, in terms of verb conjugation. While Turkish is an agglutinative language, English has more complex rules, including agglutinative and fusional features. Therefore, Turkish EFL students might get confused easily about verb formation, especially when they are not proficient in English. They tend to transfer and apply the verb formation rules in Turkish when writing in English, which can be explained with "L1 interference". Thus, consistent with the existing literature, as shown by Kırkgöz (2010), Köroğlu (2014), Demirel (2017), and Duygun and Karabacak (2022), it can be stated that verb-related errors result from L1 transfer, low proficiency in English, and neglecting proofreading.

As the second grammatical element with the most common errors in LECOSE, prepositions are often omitted by students of both levels at similar rates. In line with the research findings by Özışık (2014), Atmaca (2016), Taşçı and Aksu Ataç (2018), and Sürüç Şen and Şimşek (2020), Turkish EFL students encounter difficulties with using prepositions in their written output. It can be due to the different functions and locations of prepositions in English compared to Turkish. Hence, the preposition errors found in LECOSE showed that students tended to use the same prepositions (in, on, at) where different ones are needed as they have the same function in Turkish (*-de, -da*). Similarly, it was seen that some students could not differentiate between the prepositions "for" and "to" as they are used in the same meaning (*için*) to express purpose in Turkish. Finally, a large proportion of students did not feel the need to use prepositions where necessary. These observations can be explained with negative transfer, as also suggested by Taşçı and Aksu Ataç (2018). However, there was no significant difference between Level 2 and Level 3 students regarding the average number of preposition mistakes and how they committed the errors. To sum up, prepositions are the second most problematic element for Turkish EFL learners, so more research needs to focus on how to teach them.

Errors made on the use of definite and indefinite articles by the Turkish EFL students are the third most frequent incident that emerged in the study, slightly diverging from previous research by Kırmızı and Karcı (2017). They found that the articles were the most problematic grammatical component for the Turkish EFL students and pointed out the L1 interference as one of the possible reasons. This argument is reasonable in that there is no use of articles in the Turkish language, while articles are commonly used in English with several functions. Therefore, Turkish students are expected to have problems using articles in other languages. Accordingly, more than half of the article errors in LECOSE arose from omitting to use articles, which is in line with Ürkmez (2014). However, there is a discrepancy between the two levels in that Level 2 students were more inclined to exclude articles in their essays, whereas Level 3 students were predisposed to include unnecessary articles. Yet, there is no remarkable contrast between the two proficiency levels in selecting or ordering articles. Dağdeviren (2010) claims that high-proficient learners perform better in applying correct articles where necessary. The current study corroborates her work, considering that Level 3 students used nearly twice as many articles as Level 2 students, with a lower overall rate of mistakes. Consequently, it can be stated that Turkish EFL students have some difficulties in using articles mainly due to L1 interference and their level of proficiency in the target language.

The findings suggest that Turkish EFL students in the research context struggle to select suitable grammatical numbers (singular and plural forms) with nouns in their essays. It is the fourth common mistake found in LECOSE and its sub-corpora. This finding aligns with Türnük and Aydın (2020), who found a correlation between interlanguage errors and writing anxiety. Thus, they revealed that students had problems with singularity/plurality in their written productions. Sürüç Şen and Şimşek (2020) also revealed that grammatical number mistakes were the third most frequent category of error in their study. Likewise, Özkayran and Yılmaz (2020) suggest that more focus should be given to teaching singular and plural forms of nouns as their wrong uses were encountered commonly in their error analysis study. Interestingly, the current study observed that both Level 2 and Level 3 groups committed the same number of errors in grammatical numbers in their essays. Thus, it might be inferred that proficiency is not a factor in committing this type of error, which can be seen as a simpler grammar subject. However, because there are some differences between their native and target languages when making nouns plural, students seem confused, especially with irregular plural nouns. Therefore, mistakes in grammatical numbers can be regarded mainly as a result of syntactic differences in English.

As the fifth most common error in LECOSE, voice errors are revealed to be another problematic grammatical element for Turkish EFL learners. In addition to making mistakes while applying verb conjugation while creating sentences in passive voice, which was analyzed within verb conjugation errors, students are also challenged by choosing the correct voice to match the meaning in the context. Thus, they continue to use the active form even if they need to transform the verb into the passive form or use the passive voice even when it is unnecessary. Errors committed during voice transformation in sentences show that it is a complex process for EFL learners. However, the distribution of voice errors in LECOSE illustrates a huge difference between the two levels. The effect of exposure and practice can explain this as Level 3 students have more experience in using active and passive forms. Besides, using voices correctly requires a sufficient knowledge of tenses and sentence structure, yet the language proficiency of Level 2 students might be insufficient to apply them correctly in writing. Another explanation is that lower-level students make more mistakes as they attempt to include more advanced grammatical elements in their essays. To sum up, Turkish EFL students face problems with active and passive voice formation, and this grammatical element needs further examination.

Practical Recommendations

The findings of the study offer some opportunities for the stakeholders. The primary benefit is to inform the administrators and educators of the program about the difficulties students face applying their grammatical knowledge in writing. Thus, they should consider students' needs and weak points when updating the course content and materials for grammar and writing. It will also enable the presentation of the problematic aspects that emerged at the conclusion of the study and raise teachers' awareness of the need to revise their approaches to teaching the skills under discussion. Furthermore, teachers should emphasize the troublesome subjects in their classes by advising their students to decrease their vulnerabilities. The results imply the importance of corrective feedback in writing as the participants in this study got detailed feedback on their errors, and teachers' feedback has an impact on improving writing skills. Because making mistakes is a part of the learning process, teachers' feedback must be meaningful for the students, and it should not decrease students' motivation to write. Hence, teachers need to train their students to comprehend and respond to the provided corrective feedback (Ferris, 2010). Otherwise, the imparted feedback cannot go beyond recording the students' shortcomings, leaving them at a loss with a list of deficiencies they do not know how to overcome. Teachers must update and refine their approach to giving corrective feedback, considering that students have different learning styles. They should also clearly inform the students about course expectations and the criteria they will use to evaluate their written performance. More preferably, with face-to-face feedback offered by teachers, students will gain motivation and feel more responsible for writing essays of higher quality with minimal errors. Taşkıran and Göksel (2022) found that learners' writing skills show progress from the initial attempt to the final one thanks to formative teacher feedback. In line with the needs of Turkish EFL students, the teachers can offer limited use of L1 to explain grammatical components that they have difficulty with during grammar instruction and oral

feedback sessions. In this way, students with lower proficiencies can be encouraged to clarify their questions about the mistakes committed. It can facilitate learners' writing development thanks to the recent introduction of Translanguaging Theory in second language teaching. Furthermore, teachers should utilize native and learner corpora to supplement their course materials to show the students the correct usage of grammatical elements. Writing tasks combined with grammar can also be designed to create a chance for the students to practice authentic language. This can particularly help students who have problems with L1 interference, which the current study found to be a major factor in making grammatical mistakes.

As the stakeholders of an institution aiming to support learner autonomy in education, the target group of the study should be conveyed the message that teachers are not the sole source of information and feedback in this technology era - that means they should be encouraged to seek different ways of improving themselves in grammar and writing. One effective strategy could be guiding them to organize small study groups or to find learning partners to experience peer learning. This will also allow the students to review each other's essays before submitting them to their teachers, allowing them to (possibly) notice common mistakes they commit and look for ways to fix some of them. Another strategy could be paving the way for the students' controlled and conscious use of technology to improve their related skills.

Today, many people prefer digital information platforms due to their high availability and free-of-charge accessibility, despite some controversies about reliability or security. In a period when information technologies develop at an astonishing speed, it would be too optimistic to think that students do not use online tools for their assignments. Likewise, teachers should keep themselves up to date on technological innovations, including online dictionaries, grammar checkers, and artificial intelligence (AI) tools. Therefore, as long as they do not use technology to generate automated texts or to translate original Turkish texts into English, which will lead to plagiarism, a serious academic dishonesty issue, teachers can monitor, tolerate, and even inspire their students' use of AI tools like ChatGPT and online grammar checkers like Grammarly to practice and improve their skills as writing assistants. Students in the target group also tend to resort to these digital learning platforms; rather than regard these platforms as a threat to their profession, teachers can embrace constructive functions for themselves and in favor of their students. As a result, the implications of the study can benefit all parties in the current research context.

Limitations and Recommendations for Further Research

This study has several limitations with regard to data collection, analysis, and interpretation phases. Data collection was hampered by the pandemic period, where there was a shift to online learning, causing delays and limiting the number of essays collected. As a result, the study lacked current information on students' grammar skills and the Language Awareness course levels they were attending. Because some teachers in the language school did not follow a strict routine of using Turnitin for writing, it was not possible to get Turnitin results for the essays during data collection. In the data analysis phase, manually detected grammatical errors proved challenging, and errors were often complex, making them difficult to categorize. The study also lacked qualitative input from students or teachers and could not control variables like essay submission times or feedback methods. Consequently, the study's findings should be contextualized rather than generalized to all Turkish EFL students.

As a part of Corpus Linguistics, error analysis studies should be utilized in all educational institutions, admitting students with different proficiencies, profiles, and academic demands. Besides, teachers should be encouraged to broaden their teaching techniques, constantly refining them according to the recent trends in education and technology. They also need to amplify the effectiveness of feedback on students' performance. Thus, error analysis should be employed more commonly in higher education institutions in the Turkish EFL context to foster grammar and writing instruction.

The grammatical errors frequently observed in Turkish EFL students' papers might offer valuable insights for teachers and researchers working with similar target groups. They might need to consider their methods to respond to students' grammatical errors. Future investigations could be

extended by focusing on these grammatical elements with more in-depth analysis. Additional research is required to explore the reasons behind these results; accordingly, further studies should include student and/or teacher aspects to canvass their ideas about how they distinguish grammar mistakes in writing. Moreover, corrective feedback should be investigated from both perspectives to see if there is an alignment between teachers' and students' expectations and perceptions. Finally, building upon this research, the use of digital learning platforms and AI tools can be examined from the perspectives of serving as assistants for EFL students in improving their writing and grammar skills and sharing the role of teachers as feedback providers. Automated essay scoring systems can also be utilized to assess students' grammar performance as long as teachers' comments for correction support them. They can be useful to give immediate feedback and to decrease teachers' workload; thus, they can focus more on the content and organization of the students' essays. To conclude, teaching grammar and writing skills can be enhanced with the help of corpus-driven error analysis and other computer-assisted research methods in SLA to provide the best opportunities for foreign language learners.

Ethics Committee Approval

Acknowledgment

REFERENCES

Andrews, R., Torgerson, C., Beverton, S., Freeman, A., Locke, T., Low, G., Robinson, A., & Zhu, D. (2006). The effect of grammar teaching on writing development. *British Educational Research Journal*, *32*(1), 39-55. https://doi.org/10.1080/01411920500401997

Anthony, L. (2005). AntConc: Design and development of a freeware corpus analysis toolkit for the technical writing classroom. *Proceedings of International Professional Communication Conference,* 729-737. https://doi.org/10.1109/IPCC.2005.1494244

Atmaca, Ç. (2016). Error analysis of Turkish EFL learners: A case study. *Procedia - Social and Behavioral Sciences*, 234-241. https://doi.org/10.1016/j.sbspro.2016.10.007

Ayar, Z. (2020). Error analysis of Turkish learners' English paragraphs from lexical and grammatical aspects. *ELT Research Journal, 9*(2), 123-134.

Başöz, T., & Aydın, S. (2011). An analysis of the grammatical mistakes made by advanced EFL writers. *E-Journal of New World Sciences Academy, 6*(2), 296-306.

Botley, S. P. (2015). Errors versus mistakes: A false dichotomy? *Malaysian Journal of ELT Research*, *11*(1), 81-94.

Burnard, L. (2005). Metadata for corpus work. In M. Wynne (Ed.), *Developing linguistic corpora: A guide to good practice* (pp. 30-46). Oxbow Books.

Can, C. (2017). A learner corpus-based study on verb errors of Turkish EFL learners. *Journal of Education and Training Studies, 5*(9), 167-175. https://doi.org/10.11114/jets.v5i9.2612

Cawley, V. D. (2017). *Contextualized grammar instruction: A case study of Master's students' Writing Development.* Doctoral Dissertation, Judson University.

Celce-Murcia, M. (1991). Grammar pedagogy in second and foreign language teaching. *TESOL Quarterly*, *25*(3), 459-480.

Corder, S. P. (1967). The significance of learner's errors. *International Review of Applied Linguistics*, *5*, 161–70. https://doi.org/10.1515/iral.1967.5.1-4.161

Corder, S. P. (1981). *Error analysis and interlanguage*. Oxford: Oxford University Press.

Dagdeviren, G. (2010). Use of English articles by speakers of Turkish in the EFL setting. *Novitas-ROYAL, 4*(2), 242-250.

Demirel, E. T. (2017). Detection of common errors in Turkish EFL students' writing through a corpus analytic approach. *English Language Teaching, 10*(10), 159-178. https://doi.org/10.5539/elt.v10n10p159

Dulay, H., Burt, M., & Krashen, S. (1982). *Language two*. Oxford University Press.

Duygun, B., & Karabacak, P. (2022). An error analysis on Turkish EFL learners' writing tasks. *The Literacy Trek*, 8(2), 121-141. https://doi.org/10.47216/literacytrek.1117158

Fareed, M., Ashraf, A., & Bilal, M. (2016). ESL learners' writing skills: Problems, factors and suggestions. *Journal of education and social sciences*, 4(2), 81-92. https://doi.org/10.20547/jess0421604201

Ferris, D. R. (2010). Second language writing research and written corrective feedback in SLA: Intersections and practical applications. *Studies in Second Language Acquisition*, 32(2), 181-201. https://doi.org/10.1017/S0272263109990490

Gazioğlu, M. (2019). Motivation and testing writing: A brief review of literature. *The Literacy Trek*, 5(1), 37-48.

Granger, S. (2009). The contribution of learner corpora to second language acquisition and foreign language teaching: A critical evaluation. *Corpora and Language Teaching, 33*(13). https://doi.org/10.1075/scl.33.04gra

Hartshorn, K. J., Evans, N. W., Merrill, P. F., Sudweeks, R. R., Strong-Krause, & Anderson, N. J. (2010). Effects of dynamic corrective feedback on ESL writing accuracy. *Tesol Quarterly*, 44(1), 84-109. https://doi.org/10.5054/tq.2010.213781

Hsu, C. H. (2013). Revisiting causes of grammatical errors for ESL teachers. *Educational Research*, 4(6), 513-516.

James, C. (1998). *Exploring error analysis: Errors in language learning and use*. Routledge. https://doi.org/10.4324/9781315842912

Kadan, Ö. F. (2023). An analysis of Turkish EFL students' writing errors. *Journal of Teacher Education and Lifelong Learning*, 5(2), 598-609. https://doi.org/10.51535/tell.1352815

Kazazoğlu, Semin. (2020). The Impact of L1 Interference on Foreign Language Writing: A Contrastive Analysis. *Journal of Language and Linguistic Studies, 16*(3), 1177-1188. https://doi.org/10.17263/jlls.803621

Kırkgöz, Y. (2010). An analysis of written errors of Turkish adult learners of English. *Procedia-Social and Behavioral Sciences, 2*(2), 4352-4358. https://doi.org/10.1016/j.sbspro.2010.03.692

Kırmızı, O., & Karci, B. (2017). An investigation of Turkish higher education EFL learners' linguistic and lexical errors. *Educational Process: International Journal, 6*(4), 35-54. https://doi.org/10.22521/edupij.2017.64.3

Köroğlu, Z. Ç. (2014). An analysis on grammatical errors of Turkish EFL students' written texts. *Electronic Turkish Studies, 9*(12), 101-111. http://dx.doi.org/10.7827/TurkishStudies.7415

Krashen, S. D. (1982). *Principles and practice in second language acquisition*. New York: Prentice Hall.

Lado, R. (1957). Contrastive analysis: An overview. *Academia of education. Language Acquisition*, 33, 305-328.

Lennon, P. (2008). Contrastive analysis, error analysis, interlanguage. In *Bielefeld Introduction to Applied Linguistics. A Course Book. Bielefeld: Aisthesis Verlag*, 51-60.

Myhill, D. A., Jones, S. M., Lines, H., & Watson, A. (2012). Re-thinking grammar: The impact of embedded grammar teaching on students' writing and students' metalinguistic understanding. *Research Papers in Education, 27*(2), 139-166. https://doi.org/10.1080/02671522.2011.637640

Mede, E., Tutal, C., Ayaz, D., Çalışır, K. N., & Akın, Ş. (2014). The effects of language transfer in Turkish EFL learners. *ELT Research Journal*, 3(2), 70-83.

Norrish, J. (1983). *Language learners and their errors.* Macmillan.

Özcan, M. (2012). Novelist calls out poemist: A psycholinguistic and contrastive analysis of the errors in Turkish EFL learners-interlanguage. *International Journal of Cognitive and Language Sciences*, 6(8), 2311-2322. https://doi.org/10.5281/zenodo.1057597

Özışık, C. (2014). Identifying preposition errors of Turkish EFL students. *ELT Research Journal, 3*(2), 59-69.

Özkayran, A., & Yilmaz, E. (2020). Analysis of higher education students' errors in English writing Tasks. *Advances in Language and Literary Studies, 11*(2), 48-58. https://doi.org/10.7575/aiac.alls.v.11n.2p.48

Şahin, M. K. (1993). *Error analysis of tense and aspect in the written English of Turkish students.* Doctoral Dissertation, Bilkent University.

Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics, 10*, 209–231. De Gruyter Mouton. https://doi.org/10.1515/iral.1972.10.1-4.209

Silva, T. (1990). Second language composition instruction: Developments, issues, and directions in ESL. In B. Kroll (Ed.), *Second Language Writing: Research Insights for the Classroom* (pp. 11-23). Cambridge University Press.

Şimşek, S. (1989). *A contrastive error analysis on the written errors of Turkish students learning English.* Doctoral Dissertation, Bilkent University.

Sürüç Şen, N. S., & Şimşek, A. (2020). An analysis of Turkish students' written errors: A case of an EFL context. *Journal of Language Research, 4*(1), 58-68.

Taşçı, S., & Aksu Ataç, B. (2018). Written grammatical errors of Turkish adult learners of English: An Analysis. *Journal of International Social Sciences Education, 4*(1), 1-13.

Taşkıran, A., & Goksel, N. (2022). Automated feedback and teacher feedback: Writing achievement in learning English as a foreign language at a distance. *Turkish Online Journal of Distance Education*, 23(2), 120-139. https://doi.org/10.17718/tojde.1096260

Türnük, T., & Aydın, S. (2020). Interlanguage effect on writing anxiety in a foreign language context. *The Literacy Trek*, 6(1), 1-19.

Ürkmez, S. (2014). Article use in the compositions by Turkish EFL learners. *Contemporary Educational Researches Journal, 4*(1), 11-16.

Weaver, C. (1998). *Lessons to share on teaching grammar in context*. Boynton/Cook.

Xavier, C. A., Hong, H. M., & Renandya, W. A. (2020). Grammar in writing: Teachers' reflections. *Journal of Language Teaching and Learning in Thailand, 60,* 199-221. https://doi.org/10.58837/chula.pasaa.60.1.7

Yüksel, G. (2007). *Grammatical errors in the compositions written by Turkish learners of English* (Master's thesis, Social Sciences Institute).

Zhong, X., & Wakat, G. (2023). Enhancing grammar proficiency of EFL learners through corpus-integrated lessons. *Ampersand*, *11*, 100139. https://doi.org/10.1016/j.amper.2023.100139