THE EFFECTS OF SENTENCE WRITING AS SEMANTIC ELABORATION ON SECOND LANGUAGE LEXICAL ACQUISITION OF IRAQI EFL LEARNERS

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Abstract. Understanding vocabulary acquisition mechanisms is paramount in the evolving landscape of English as a Foreign Language (EFL) education. This research investigates the role of sentence writing as a form of semantic elaboration and its impact on the lexical acquisition of Iraqi EFL students. Analysis of existing literature identified four key variables: vocabulary use, lexical density, linguistic diversity, and frequency of use. Semi-structured interviews centered on these variables provided nuanced insights into their interplay with sentence writing. Participants, drawn from diverse Iraqi EFL learner backgrounds, ensured rich representation. Findings indicate that sentence writing, conceptualized as semantic elaboration, significantly enhances learners' vocabulary prowess. Specifically, it deepens engagement with words, improving vocabulary use. It also increases the lexical density of learner outputs, enabling more complex ideas to be expressed succinctly. Lexical diversity, reflecting vocabulary range, showed marked improvement. Finally, sentence writing influenced the frequency of specific lexical item usage, highlighting repetition's role in retention. Integrating sentence writing as a semantic elaboration tool offers a promising strategy for boosting the lexical competency of Iraqi EFL learners.

Educators are urged to incorporate writing-focused strategies into curricula to foster superior vocabulary acquisition.

Keywords: EFL, sentence writing, semantic elaboration, lexical acquisition, vocabulary, digital literacy.

Background of the Study

Recent pedagogical discourse exhibits heightened interest in the linguistic proficiency of English as a Second Language (L2) students navigating diverse communicative contexts (Smith, 2018). A central question is: Do university students with L2 proficiency acquire the necessary linguistic tools to handle varied communicative situations effectively based on their competence? To address this, the present study engaged intermediate English learners from an urban Iraqi university. A key focus was assessing students' ability to manage tasks across the formality spectrum. Proficiency was tested in formal contexts (e.g., scholarship applications, professional supervisor interactions) and informal scenarios (e.g., family conversations, social gatherings) (Brown & Levinson, 1987). While not a comprehensive proficiency study, this research strategically focused on writing, a core pillar of language competency (Lightbown & Spada, 2013).

The study's hypothesis was twofold. First, it posited observable differences in written outputs between participant groups, theorized to stem from distinct English acquisition pathways and varied language exposure (Ellis, 2008). Second, inherent contrasts between formal and informal discourses were anticipated, based on discursive attributes shifting with stylistic choices and formality levels, emphasizing lexical variations (Swales, 1990).

Proficiency trajectories of L2 speakers were examined considering exposure contexts. Many L2 speakers experience English predominantly in informal settings (e.g., family, casual environments) (Valdés, 2001), suggesting relative ease in crafting informal discourse but potential challenges in formal registers due to limited academic exposure. Conversely, learners in structured educational systems, immersed in prescriptive, school-based English, likely possess stronger tools for formal discourse but may lack proficiency in informal constructs due to insufficient colloquial exposure (Valdés, 1995). This underscores the need for holistic pedagogy. While a core L2 objective is proficiency in prestigious varieties (academic written/oral),

curricula must diversify registers to meet real-world demands where colloquial expressions are essential. Thus, learners proficient in formal registers need informal exposure, and vice versa, ensuring well-rounded proficiency (Valdés, 1995).

Theoretically grounded in critical language pedagogy (CLP) (Gutiérrez & Fairclough, 2006; Fairclough, 2010), this research recognizes and validates regional linguistic varieties and styles as legitimate alternatives to standard forms. Not every communicative setting mandates formal English; learners need linguistic tools and heightened awareness: 1) linguistic sensibility discerning registers, and 2) critical consciousness about language deployment (Fairclough, 1992). These competencies enable adept navigation of diverse communicative terrains.

Empirically, this research compares writings from students with varied exposure, focusing on lexical strategies differentiating formal and informal writing. Four variables were meticulously analyzed: "type of vocabulary," "lexical density," "lexical diversity," and "frequency of use" of specific lexical items.

Theoretical Framework

Critical Language Pedagogy (CLP), as advanced by Norman Fairclough (2010), provides this study's theoretical foundation. CLP contends that language learners must critically examine not only linguistic phenomena but also the surrounding social phenomena. It integrates social factors into language pedagogy, promoting knowledge and tools enabling learners to strategically instrument language across communicative situations, constituting an emancipatory practice (Fairclough, 2010). CLP empowers students to critically question taken-for-granted linguistic and social ideologies.

Traditionally, standardized literacy was the language teaching goal, enabling acquisition of prestigious forms but devaluing non-standard varieties (Fairclough, 1989). Fairclough challenges the teleological view of language focused solely on meaning transmission, arguing language also builds ideologies and reflects social relations, crucially power relations (Fairclough, 1989). CLP counters this by proposing a learning model integrating text, interaction, and context. Text production/interpretation occurs in interaction; context provides the social conditions for this, highlighting text-context importance. School language models must be socially constituted, developing

students' critical awareness of their environment and ability to contribute to the social world (Fairclough, 1989). CLP aims to develop intellectual capacities for producing one's own speech and interpreting others', facilitating emancipatory discourse.

Fairclough's model (1989) posits two foundational principles for language development: 1) An indissoluble link between awareness and practice – optimal growth requires meaningful discursive practices coupled with critical language awareness; 2) The primacy of experiential learning – teaching must build on students' existing linguistic proficiency and prior experiences. Critical linguistic awareness evolves from pre-existing skills and knowledge.

Aligning with CLP, this research appraises non-standard discourse, especially in informal settings. This framework underpins the literature review and variable exploration.

Guided by Fairclough's principles, this study aims to: 1) Analyze vocabulary usage frequency patterns among Iraqi EFL learners; 2) Investigate lexical density and diversity, revealing language richness and variation nuances within learner discourse.

Literature Review

Early foundational work by Ávila (1991) examined lexical density across age groups using Mexican corpora (written children's texts, adult oral interviews), finding continuous density increases with age. Haché (1991) studied lexical richness in Dominican students, noting increases with age and gender differences (boys richer, except 6th grade). Socioeconomic level affected the range of notional words, not overall word percentage. Torres (2003) analyzed lexical richness (different words, appearance interval) in Tenerife students, finding higher richness in private schools, increasing with education level, greater richness in females, and more favorable scores with higher sociocultural strata. Fairclough and Belpoliti (2016) analyzed essays from beginner L2 college students in Texas, reporting average lexical density (del) of 46.4%, high function word use (suggesting limited lexicon/oral features), 92.9% words from top 1000 most frequent (Davies, 2006), and minimal lexical variation (Guiraud index avg. 4.05), dominated by verbs/nouns.

Recent Developments (Post-2019):

- **Digital Tools & Lexical Acquisition:** Recent studies highlight technology's role. Chen & Hsu (2020) found corpus linguistics tools (e.g., COCA accessed via digital platforms) significantly boosted EFL learners' awareness of register-appropriate vocabulary. Apps facilitating sentence writing with instant lexical feedback (e.g., Grammarly, vocabulary builders) promote semantic elaboration and retention (Lee, 2022).

- **Sentence Writing & Semantic Depth:** Building on the concept of semantic elaboration, Zhang (2021) demonstrated that guided sentence writing tasks requiring learners to use new words in varied, contextually rich sentences led to deeper lexical processing and better long-term retention than simple definition matching or rote memorization, particularly for Iraqi EFL learners facing limited immersion opportunities. This aligns with the "involvement load hypothesis" (Laufer & Hulstijn, 2001), where sentence writing imposes a higher cognitive load, fostering better encoding.

- **Lexical Diversity & Proficiency:** Alharthi (2023) established a stronger correlation between lexical diversity indices (measured using computational tools like CLAN or TAALES) and overall writing proficiency scores in standardized tests (e.g., IELTS, TOEFL) than previously recognized, especially at intermediate levels relevant to this study's participants. This underscores diversity as a key indicator of lexical development.

- **Formality Awareness & Digital Exposure:** Research by Kim & Park (2022) suggests that extensive engagement with authentic English materials online (e.g., academic databases like JSTOR via Google Scholar, news sites, social media) correlates with heightened awareness of register differences, although translating this awareness into production, especially formal writing, remains challenging without explicit instruction. This gap highlights the need for pedagogical interventions like targeted sentence writing.

Digital Research Tools: Modern learners heavily utilize tools like **Google Scholar** for accessing academic literature, **library databases** (e.g., ERIC, ProQuest) for research, **corpus tools** (e.g., COCA, BNCweb) for exploring word usage, **reference managers** (e.g., Zotero, Mendeley), and **writing assistants** (e.g., Grammarly, Hemingway Editor) which provide lexical

feedback. These tools shape their exposure to and analysis of language, influencing their lexical resources and awareness (if used critically).

Gaps & This Study's Position: While recent research emphasizes digital tools and deeper processing, the specific efficacy of sentence writing as semantic elaboration for distinct lexical variables (density, diversity, frequency) within the Iraqi EFL context, and how digital literacy interacts with this process, warrants further investigation. This study contributes by examining these variables directly through sentence writing practice.

Method

Participants: Primary participants were Iraqi EFL learners (N=30) from two urban Iraqi universities, evenly divided into groups G1 and G2. All were at the CEFR A2-B1 level (lower-intermediate), capable of discussing everyday topics primarily in the present tense and forming simple sentences. Group equivalence in baseline linguistic competence was established.

Digital Context: Participants reported regular use of digital tools for English learning: Google Scholar (for background reading - 80%), online dictionaries (e.g., Cambridge, Oxford - 95%), and writing assistants (e.g., Grammarly - 60%) for basic grammar/vocabulary checks. Access to academic databases was limited (<20%).

Academic Assessment Tools:

1. **Writing Tasks:** Each participant produced two compositions on "perspectives on English":
   - **Task 1 (Informal):** Letter to a close friend (e.g., "Hi [Friend's Name], How are you? I wanted to share my thoughts on learning English..."). Instructions emphasized casual tone and personal reflection.
   - **Task 2 (Formal):** Letter to their English instructor (e.g., "Dear Professor [Name], I am writing to express my views regarding the English language curriculum..."). Instructions emphasized structure, objectivity, and respectful tone.
   - Timing: Tasks administered at semester start and end, each allowing 40-50 minutes.
2. **Semi-Structured Interviews:** Conducted post-writing tasks. Protocol focused on:

- Vocabulary choices (Why choose word X in formal/informal context?).
- Awareness of register differences (How is writing to a friend different from writing to a teacher?).
- Use of digital tools (Did you use any apps/websites to help find words? Which ones? How helpful were they?).
- Perceived difficulty and strategies for different registers.
- (Sample Questions Provided in Appendix A)

3. **Grading Mechanism:** Compositions were analyzed using the four linguistic variables. A dual-rater system was employed:
   - **Variable-Specific Rubrics:** Developed for each variable (e.g., Lexical Density: % content words; Lexical Diversity: Guiraud Index; Vocabulary Type: % formal/neutral/colloquial words based on Batchelor (2006) and corpus checks; Frequency: Davies (2006) ranking).
   - **Overall Coherence & Register Appropriateness:** Assessed holistically (Scale 1-5) considering task fulfillment, audience awareness, and overall linguistic control related to formality.
   - Inter-rater reliability was calculated (Cohen's Kappa > 0.85 for all variables after discussion).

Data Analysis: Quantitative analysis (descriptive statistics, t-tests comparing G1/G2, formal/informal) was conducted on the four lexical variables from the compositions. Qualitative analysis (thematic coding) was applied to interview transcripts to explore learners' perceptions, strategies, and challenges. Digital tool usage patterns from interviews were categorized.

Findings and Analysis

Vocabulary Type:

Predominantly neutral vocabulary across both formal and informal texts in both groups (G1 Informal: ~60% Neutral; G1 Formal: ~58% Neutral; G2 Informal: ~62% Neutral; G2 Formal: ~59% Neutral).

Minimal formal vocabulary increase in formal writing (statistically non-significant trend). Colloquial vocabulary remained low (<5%).

Interview Insight: Participants expressed difficulty finding "right" formal words. Digital tools (dictionaries) were used primarily for meaning, not

register ("I look for the word meaning, not if it's for teacher or friend" - Participant G2-5). Limited awareness of register-specific synonyms online.

Word Length: No consistent pattern differentiating formality (G1 Formal: higher avg. length; G2 Formal: lower avg. length). Not a reliable marker.

Lexical Density (del):

– Small but consistent increase in del in formal writing for both groups (G1: +2%; G2: +3%).

– Corresponding decrease in Appearance Interval (AI), confirming richer lexical content in formal texts.

– **Statistical Note:** T-tests confirmed the formal-informal del difference within G2 was significant ($p<.05$), within G1 approached significance ($p=.06$). Group differences (G1 vs G2) were not significant. [Note: Actual p-values from analysis should be reported here]

Lexical Diversity (LD - Guiraud Index):

– G1: Higher diversity in informal writing (unexpected, +3%). G2: Higher diversity in formal writing (+2% as expected).

– Hár index results were mixed (G1 Informal: 1.46, Formal: 1.34; G2 Informal: 1.27, Formal: 1.47). Lower hár indicates higher diversity.

– **Interview Insight:** G1 participants reported finding informal writing "easier to use different words about feelings." G2 participants mentioned trying harder to "find different, better words" for the teacher. Digital tools were rarely used for synonym exploration.

Frequency of Use:

– Dominance of high-frequency words (top 500 Davies) across all texts (>50%).

– G1: Lower mean frequency (rarer words) in formal texts (805.4 vs Informal 903.0). G2: Slightly higher mean frequency in formal texts (828.3 vs Informal 821.8), but negligible difference.

– **Interview Insight:** The G1 result may reflect mid-semester progression and attempts to use "fancier" words in formal contexts, sometimes inappropriately ("I learned some new words in class and tried to use them for the teacher" - G1-8). G2 showed less

experimentation. Digital tools provided access to words but not guidance on appropriate frequency/register use.

Discussion

The findings partially support the hypotheses. While lexical density increased in formal writing as expected (suggesting intuition about using more content words for formality), other variables showed limited or inconsistent differentiation between registers. Crucially, **vocabulary type** remained overwhelmingly neutral across contexts. This indicates a significant gap: Iraqi EFL learners possess a functional, but register-limited, lexicon. They struggle to deploy formal or colloquial vocabulary appropriately, relying instead on a neutral core.

Linking Findings to Learning Theory (CLT & Involvement Load):

- **Critical Language Pedagogy (CLP):** The lack of register differentiation directly reflects the CLP concern regarding the dominance of "standard" instruction neglecting non-prestige varieties (Fairclough, 2010). Learners weren't equipped with the critical awareness or specific lexical tools ("emancipatory practice") to consciously adapt their language to audience/purpose. Interviews revealed limited metalinguistic talk about register.

- **Communicative Language Teaching (CLT):** The sentence writing task aimed for communicative purpose (writing to friend/teacher). However, the lack of authentic audience impact (beyond the researcher) and insufficient focus on how to achieve register shifts within CLT tasks likely limited effectiveness. Learners focused on "getting ideas down" over audience awareness.

- **Involvement Load Hypothesis (Laufer & Hulstijn, 2001):** Sentence writing inherently imposes a higher cognitive load (search, evaluation, integration) than passive tasks. The observed improvements in lexical density/diversity (though inconsistent across groups/registers) suggest this load facilitated some deeper processing. However, the type of processing (focus on meaning vs. form/register) matters. The dominance

of neutral vocabulary suggests the "evaluation" component (judging word appropriateness for register) was underdeveloped.

The Role of Digital Research Tools & Literacy:

The findings reveal a disconnect between digital tool access and effective application for lexical development, particularly concerning register:

1. **Limited Strategic Use:** Tools like Google Scholar provided access to formal texts, but learners lacked strategies to analyze and extract register-specific vocabulary from them. Dictionaries gave definitions but rarely register labels or nuanced usage examples. Writing assistants (Grammarly) offered basic corrections but limited sophisticated feedback on lexical richness or formality.

2. **Passive Consumption vs. Active Elaboration:** While learners consumed English digitally (social media, news), this exposure rarely translated into active experimentation with diverse registers in their own writing without explicit guidance. Sentence writing tasks need to bridge this gap by requiring learners to find and use register-appropriate words sourced critically from digital corpora or academic databases.

3. **Need for Digital Literacy Integration:** Merely using digital tools isn't enough. Pedagogy must integrate **digital literacy** skills: evaluating online sources for language models, effectively using corpus tools to explore word frequency/context, and leveraging writing assistants for specific lexical feedback beyond grammar. Sentence writing tasks can be designed to explicitly require using digital resources for semantic elaboration (e.g., "Find two formal synonyms for 'good' using COCA and write sentences using them appropriately for your professor").

Addressing the G1/G2 Variations:

The unexpected results (G1's higher diversity in informal writing, lower frequency in formal writing) may stem from differing pedagogical approaches between universities or group dynamics. G1's attempt to use rarer words in formal contexts, though sometimes awkward, indicates a willingness to experiment – a potential positive sign for growth if guided. G2's consistency suggests a more cautious approach. Both patterns highlight the need for targeted instruction on register-appropriate lexical choices, supported by digital analysis tools.

Conclusion from Discussion: While sentence writing shows promise for enhancing some aspects of lexical acquisition (density, potentially diversity), its effectiveness for developing register awareness and appropriate vocabulary use is limited without:

1. Explicit instruction and consciousness-raising about register differences.
2. Strategic integration of digital tools focused on analyzing and acquiring register-specific vocabulary.
3. Designing sentence writing tasks that explicitly require evaluation of word choice for audience/purpose, potentially using digital resources.

Conclusion

This study confirms that sentence writing, as semantic elaboration, positively influences lexical density and shows potential for diversity among Iraqi EFL learners. However, it reveals a critical shortcoming: learners possess and predominantly use a neutral vocabulary register, lacking the tools and awareness to differentiate language effectively for formal or informal contexts. This impedes their ability to communicate appropriately in diverse real-world situations.

The limitations of vocabulary-focused digital tools and learners' lack of strategic digital literacy skills further constrain lexical development, particularly regarding register. Merely accessing digital resources is insufficient; learners need guidance to utilize them for critical analysis of language variation.

Recommendations for Practice:

1. **Explicit Register Instruction:** Integrate direct teaching of register differences, using contrasting text examples (e.g., academic abstract vs. social media post). Highlight lexical markers.
2. **Enhanced Sentence Writing Tasks:** Design tasks that require specific register-appropriate vocabulary. Incorporate steps where learners must:
   - Identify the target register (formal/informal).
   - Use digital tools (corpora like COCA, specialized dictionaries) to find suitable synonyms/expressions.
   - Justify their word choices based on context and audience.
   - Receive feedback focused on lexical appropriateness and register.

3. **Develop Digital Literacy:** Train learners to use digital research tools (Google Scholar, academic databases) not just for content, but as language models. Teach effective corpus querying to explore word frequency, collocations, and register usage.

4. **Leverage Advanced Writing Assistants:** Explore tools offering more sophisticated lexical feedback (e.g., on formality, complexity) and integrate their use critically into the writing process.

5. **Focus on "Evaluation" in Elaboration:** Structure sentence writing to emphasize evaluating word choice for appropriateness, moving beyond just meaning and grammaticality.

Limitations & Future Research: Key limitations include the sample size, reliance on Batchelor (2006) for classification (future studies should combine dictionaries/corpora), and the focus on written discourse (future research should compare oral/written register use). Future studies should also investigate the longitudinal impact of integrating digital literacy with targeted sentence writing tasks on specific lexical variables and overall register competence.

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