

RESEARCH ARTICLE

Enhancing Syntactic Complexity in EFL Writing Through Dialogic One-to-One Feedback: A Longitudinal Study with Pre-Service Teachers**Dr. Öğr. Üyesi Mehmet EKİZOĞLU** ✉, and **Prof. Dr. Hatice SOFU**¹ *İstanbul Gelişim Üniversitesi, Cihangir Şehit, J. Kom. Er Hakan Öner Sk. No:1 D:B-Blok, 34310 Avcılar*² *Beşyol, İnönü Cd. No:38, 34295 Küçükçekmece/İstanbul***Corresponding Author:** Dr. Öğr. Üyesi Mehmet EKİZOĞLU, **E-mail:** mekizoglu@gelisim.edu.tr

ABSTRACT

This study examines the longitudinal development of syntactic complexity in the academic writing of pre-service teachers of English as a Foreign Language (EFL) through one-to-one tailored feedback. The analysis is based on Swain's (1985) Output Hypothesis and Long's (1996) Interaction Hypothesis and considers the role of dialogic contact and pedagogical scaffolding in the Zone of Proximal Development (ZPD) in structural development. The analysis is based on Swain's (1985) Output Hypothesis and Long's (1996) Interaction Hypothesis & Investigates the Role of Dialogic Contact and Pedagogical Scaffolding in the Zone of Proximal Development (ZPD) in Structural Development. Mixed-method study was conducted and 18 first year ELT students were followed up for six weeks through weekly writing tasks and individual feedback meetings. Quantitative data were analysed with major syntactic complexity measures, including Mean Length of T-unit (MLT), Clauses per T-unit (C/T), and Mean Length of Clause (MLC). Reflective diaries and semi-structured interviews were used to collect qualitative data to understand the students' cognitive and affective perceptions. The quantitative results showed a statistically significant rise in all parameters. The largest increase was observed in MLT and C/T indicating more subordination and longer structural units. Qualitatively, participants felt that the one-to-one format helped them to "notice" holes in their linguistic repertoire and offered a low-anxiety atmosphere for linguistic experimentation. The study shows that a change from standardised written feedback to individualised verbal interaction is vital for promoting advanced syntactic development in teacher education programs.

KEYWORDS

Syntactic complexity, One-to-one feedback, EFL writing, pre-service teachers, Output Hypothesis, Interactional scaffolding

ARTICLE INFORMATION

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1. Introduction

Writing is typically recognised as one of the most cognitively demanding abilities in the domain of Second Language Acquisition (SLA) that involves the concurrent coordination of linguistic, stylistic and strategic resources. In this intricate process, syntactic complexity, which refers to the diversity and sophistication of grammatical structures, is a key predictor of a learner's interlanguage growth and overall writing skill (Ortega, 2003). An indicator of learners' academic literacy is their ability to transition from simple, coordinate structures to more complex, subordinate and embedded structures as they develop. Mastering these advanced forms is especially important for EFL pre-service teachers who will be linguistic models in their future professional situations.

Swain's (1985) Output Hypothesis provides the theoretical basis of syntactic development. Swain argues that exposure to understandable material alone does not result in nativelike grammatical precision and complexity, learners need to be 'pushed' to develop language. This language generation process compels learners to understand the limitations of their present interlanguage, or what Swain refers to as 'noticing the hole'. In writing, this realisation typically happens when a student seeks to convey a difficult notion but finds their syntactic toolbox lacking. Moreover, these linguistic gaps are best filled by negotiation of meaning as pointed out in Long's (1996) Interaction Hypothesis. Although negotiation is often thought of as an oral process, the principles of negotiation are also applicable to the writing process via interactive feedback methods.

The importance of syntactic growth is well known, but standard classroom settings often do not give the individualised attention that is required. Standardised written corrective feedback (WCF) can be effective for error rectification but often does not encourage structural expansion. Traditional feedback is usually one-way, leaving little possibility for the “dialogic interaction” needed to scaffold a learner’s development within their Zone of Proximal Development (Vygotsky, 1978). One-on-one feedback sessions alleviate this restriction by changing feedback into a collaborative discourse. In these sessions the instructor is not only a proof reader, but a facilitator that helps the learner explore alternate more sophisticated ways of encoding meaning .

According to Öztürk, Y. (2023), in the Turkish EFL setting, especially in teacher education programs, students tend to reach a plateau in their syntactic growth, and they use “safe” and repeated phrase patterns as a strategy to prevent errors. While the benefits of peer feedback and automated feedback technologies have been discussed extensively in the literature, there is a lack of information on the longitudinal effect of individualised verbal conferences on the syntactic complexity of Turkish pre-service teachers. Usually in research, the “accuracy” (i.e. decrease of errors) has been prioritised over “complexity” (i.e. variety of structure) (Polio, 2001).

Therefore, the present study attempts to fill this empirical gap by evaluating the developmental trajectories of 18 EFL pre-service teachers across a six-week intensive intervention. The study intends to answer the following research questions by combining quantitative analysis of changes in syntactic metrics (e.g., Mean Length of T-unit (MLT) and Clauses per T-unit (C/T)) and qualitative insights from student perspectives.

1. How does longitudinal one-to-one feedback affect the syntactic complexity of the writing of EFL pre-service teachers?
2. How do learners evaluate the contribution of individual feedback sessions to their structural growth and “noticing” processes?

2. Method

In this study, a mixed-methods research methodology was utilised, which combined quantitative and qualitative data to gain a thorough picture of syntactic development. The development paths of learners were tracked over a period of six weeks in a longitudinal approach. Using a quasi-experimental methodology, quantifiable data were collected to examine longitudinal changes in some metrics of syntactic complexity. The qualitative element of the opposite side was conducted in an interpretive paradigm. Student reflection and semi-structured interviews were used to study the cognitive and affective aspect of the feedback process. This triangulation of data meant that the numerical increases in complexity were contextualised with the genuine experiences and views of the learners.

2.1 Setting and participants

The research was conducted in the English Language Teaching (ELT) department of a foundation university in Turkey. The participants were 18 first-year undergraduate pre-service teachers (12 female, 6 male). The participants were selected through purposive sampling to have a homogenous sample in terms of language skill (B2 level according to the CEFR) and pedagogical background. The intervention was applied in the context of an obligatory course called “Academic Writing” in which all the participants were enrolled at the time of the study. All the students volunteered to take part in the study and provided their informed consent, respecting the ethical standards throughout the research. All the participants were enrolled in a compulsory “Academic Writing” course, which was the instructional context of the intervention. All the students volunteered to participate in the study and provided informed consent, in accordance with the ethical norms in the research. The participants were 18 first year undergraduate pre-service teachers (12 females and 6 males). Participants were intentionally and purposefully chosen to create a homogeneous sample, which allowed for comparability among the group. Two factors contributed to the homogeneity: the level of language proficiency (all students were at B2 level according to the same European Framework of Reference for Languages (CEFR)) and their same pedagogical experience as pre-service teachers. This selection procedure was used to minimise the uncertainty coming from varied levels of competence or educational background.

The intervention was carried out within the scope of a mandatory university course, “Academic Writing.” The intervention was interwoven within the instructional design of the course. All participants were officially enrolled in this compulsory course at the time of the study. The investigation was therefore carried out in a normal classroom environment rather than an external or extra one.

Participation in the research was completely optional. The research process followed the ethical criteria in educational research such transparency, voluntary involvement and respect the rights of the participants.

2.2 Instruments for data collection

There are three basic devices to ensure data triangulation:

- Corpora of texts We acquired raw data for syntactic analysis from a total of 108 essays (6 tasks X 18 participants).
- Reflective Journals: After each feedback session, participants wrote down their reflections about what they had “noticed” about their personal language limitations and the techniques they planned to use.
- Semi-Structured Interviews: Exit interviews were conducted at the conclusion of the six weeks to obtain in-depth data regarding participants’ general perceptions of the individual feedback format in comparison with their previous experiences with collective input.

2.3 The intervention: The one-to-one feedback process

The intervention was held for six weeks and was characterised by a methodical and recurrent cycle, which included phases of production, feedback and revision. This systematic design was regularly followed for the whole course of the investigation.

1. Writing Stage:

Each week the participants were assigned a new topic for an argumentative essay that was directly linked to their academic program. The prompts were adapted to their discipline-specific context. Students were asked to produce their first drafts individually and submit them electronically, providing a uniform and traceable process for all participants.

2. Feedback Stage:

Following each submission an individual one-to-one with students was undertaken. Each session lasted roughly 15-20 minutes, and was designed as a dialogic engagement and not a unidirectional correcting process. During these meetings the researcher and the student discussed the text together, referring to written notes and spoken discussion. The researcher applied interactional scaffolding tactics to help students to discover specific linguistic gaps in their writing. Special focus was paid to the development of syntactic complexity and pupils were helped to transform simple sentence structures into more complex ones including relative clauses, nominalisations and adverbial subordinations. This phase was not only about correction but about collaborative language growth.

3. Revision Stage:

Following the feedback sessions the students revised their compositions to include the negotiated forms and structural principles into their writing. These modifications would then feed into subsequent tasks, creating a cycle of “noticing” linguistic aspects and generating “pushed output.” The constant repetition helped me to internalise difficult grammatical patterns and to apply them more and more in academic writing.

2.4 Analysis of data and syntax measures

The quantitative analysis was based on the T-unit, which is well recognised as a valid measure for quantifying the syntactic complexity of L2 writing (Hunt, 1965; Wolfe-Quintero, Inagaki, & Kim, 1998). The following indices were calculated for each essay:

Length based measures: Mean Length of T-unit (MLT), and Mean Length of Clause (MLC) to monitor the density of production units.

Subordination: Clauses per T-unit (C/T) as an indicator of the degree of embedding and clausal integration.

To assess if the growth over the six weeks was statistically significant, Repeated Measures ANOVA (or Friedman test if non-normality is assumed) was performed. Qualitative data were thematically examined. Journals and interview transcripts were processed with a constant comparative technique to uncover comparable themes such as “noticing,” “interactional safety,” and “structural experimentation.”

3. Results

The results of this study are divided into two major parts: the quantitative analysis of the measures of syntactic complexity and the qualitative analysis of the comments and interviews of the participants.

3.1 Quantitative Analysis: Trajectories of Development of Syntactic Complexity

Quantitative analysis of longitudinal changes in writing over six weeks was conducted (MLT, Clauses per T-unit (C/T), and Mean Length of Clause (MLC)). Repeated measures analysis demonstrated a continuous and statistically significant rise in the structural sophistication of the writing generated by participants.

Table 1. Descriptive Statistics of Syntactic Complexity Measures (N=18)

Measure	Week 1 (M)	Week 3 (M)	Week 6 (M)	Overall Gain
MLT (Length of T-unit)	12.42	14.15	16.28	+3.86
C/T (Subordination Ratio)	1.45	1.62	1.84	+0.39
MLC (Length of Clause)	8.56	8.73	8.85	+0.29

The most important improvement shown in Table 1 is the Mean Length of T-unit (MLT). The mean score improved from 12.42 to 16.28. This indicates that the one on one feedback sessions have been efficient in improving the production units of pupils. Also, the increase in the Clauses per T-unit (C/T) ratio from 1.45 to 1.84 shows a tendency to subordination. This increased the usage of complex dependent clauses (relative, nominal and adverbial) in students' writing, moving pupils away from basic, coordinate sentence structures. While the rise in the Mean Length of Clause (MLC) was more marginal, the aggregate figures point to a notable broadening of the individuals' syntactic repertoires.

3.2 Qualitative Analysis: Cognitive and Affective Perceptions

A thematic analysis of the reflective diaries and interview transcripts revealed richer insights into the processes behind these quantitative advances. Three main motifs emerged:

1. More "Noticing" and Awareness

Most participants (over 70%) said that the personalised nature of the feedback sessions helped them identify their linguistic "holes" which were previously overlooked in classroom-based education.

- "I thought my sentences were good in class. But when we met and went through my article together I could see I was repeating the same simplistic structures. While I was drafting the following draft, I started to 'notice' my own patterns." (P7)

2. Structural experimental scaffolding

Participants stressed that the verbal discussion in the sessions was a support system enabling them to experiment with more difficult structures that they would otherwise avoid for fear of making mistakes.

- "I used to be scared of long sentences because I thought I would lose the meaning. "The feedback sessions gave me the confidence to try relative clauses because I knew we would talk about them and fix them together." (P12)

3. Decrease in Writing Anxiety

The dialogic and personalised setting had a substantial impact on reducing the participants' fear about the writing process. They regarded it as a "collaborative improvement" rather than a "correction of errors."

- It didn't feel like a teacher marking me, it felt like a discussion on how to articulate my views better. "It made me feel less stressed and more adventurous with grammar."

4. Discussion

The results of this longitudinal study give persuasive evidence that individualised, dialogic feedback is a powerful driver for the growth of syntactic complexity in EFL writing. The large increases in MLT and C/T measures in this study indicate that changing from traditional, one-way corrective feedback to a collaborative interactional paradigm promotes a more complex interlanguage development.

4.1 Syntactic growth as a function of pushed output

The steady growth of the Mean Length of T-unit (MLT) and subordination ratios (C/T) provides support for Swain's (1985; 1995) Output Hypothesis in a very direct way. One-to-one conferences turned out to be an effective "push" for the participants to shift from semantic to syntactic processing. The work of verbal negotiation of meaning gave the students an opportunity to shift from "noticing a hole" to actively testing new hypotheses about the language. As indicated in the findings, the sessions encouraged the students to experiment with complex structures such as nominalisation and relative clauses that they had previously avoided. This structural expansion confirms Skehan's (1998) assertion that learners need to be incentivised to make "complexity" a priority in addition to "accuracy" and "fluency to make progress. In one-to-one conversations, participants were successfully "pushed" from semantic processing to syntactic processing. The verbal negotiation of meaning enabled pupils to move from "noticing a hole" to actively testing new linguistic hypotheses. As mentioned in the findings, the workshops led students to experiment with complicated structures such as nominalisation and relative clauses that they did not utilise before to the sessions. This structural extension is based on Skehan's (1998) statement that learners need to be motivated to develop in such a way that "complexity" is put on an equal footing with "accuracy" and "fluency."

4.2 Interactional Scaffolding and the ZPD

One of the important contributions of this study is to show how one-to-one feedback functions as an interactional scaffold. Feedback sessions created a customised support system that is often unavailable in a regular classroom environment based on Vygotsky's (1978) Zone of Proximal Development (ZPD). The researcher did not only offer edits but, in a dialogic process, the researcher and student co-created a more elaborated version of the writing. This collaboration allowed pupils to reach a higher level of syntactic complexity than they would have been able to do on their own. Qualitative research on "increased noticing" implies this framework was internalised and resulted in more autonomous, conscious use of difficult grammar in subsequent writing assignments.

4.3 Interactional scaffolding and the ZPD

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4.4 Addressing the affective barrier: Confidence and complexity

Most importantly, the study emphasises the symbiosis between affective elements and language development. Qualitative studies suggested a significant reduction in writing anxiety that seems to be a precondition for syntactic innovation. The one-to-one conference, as Long (1996) states in his Interaction Hypothesis, offered a safe, non-threatening environment and thus greater opportunities for "negotiation of meaning". The opportunity to discuss with others reduced the anxiety of making mistakes and pupils became more willing to take linguistic chances. Hence, the developmental "plateau" typically observed in Turkish EFL learners can be as much an affective as a cognitive issue, and personalised attention offers the psychological safety needed to overcome this plateau.

The results are consistent with and build upon the findings of Norris and Ortega (2009) who underlined the importance of longitudinal tracking for the understanding of CAF (Complexity, Accuracy, Fluency) development. Several studies in a Turkish context have concentrated on automated or peer feedback but this study reconfirms the irreplaceable relevance of the human instructor as a dialogic partner Altay, M., & Alan, B. (2020). The one-on-one conference also allows for contingent feedback as opposed to automated systems that provide static corrections. Contingent feedback attends to the learner's proximal development and changes according to the learner's real-time progress. While prior studies on automated and peer feedback under Turkish context have been conducted, the current study highlights the critical significance of human tutor as an active dialogic entity in the process of learning. Instead of automated static and predetermined corrections, one-to-one conferences provide interactive and reactive guidance. These meetings provide not only corrective input, but also negotiated support that is closely attuned to learners' emerging linguistic development. Contingent feedback, then, differs in crux from automated correction, as it is continually shaped and adapted through interaction and to the academic and linguistic needs of the learner at that moment.

This longitudinal study has shown that the growth of grammatical complexity in EFL writing is not a by-product of passive exposure, but an effect of interactive, dialogic engagement. The 6-week journey of pre-service teachers has shown that one-to-one feedback is a transformative pedagogical tool to bridge the learner's existing interlanguage with their potential for advanced structural expression. Pre-service teacher monitoring over six weeks found one-to-one feedback an effective instructional

technique to build the interlanguage that the learner already had to the ability to do more complicated structures. This six-week journey of pre-service teachers has indicated that one-to-one feedback is a potent teaching technique that ties the interlanguage of the learner and their ability to express themselves structurally at a higher level. The one-to-one feedback was an effective technique to build on the learner's existing interlanguage to the ability to perform more complicated structures as observed during six weeks of observing pre-service teachers.

4.5 Pedagogical implications for teacher education

The sharp increase in Mean Length of T-unit (MLT) and clausal integration (C/T) is evidence that the personalised feedback "pushes" learners to reorganise their syntactic knowledge. But qualitative data shows that at the heart of this growth is an enhanced state of "noticing" beyond the figures. Feedback is presented as tailored dialogue, not as a static correction of errors, but as a dynamic negotiation of meaning to internalise complex structures inside the Zone of Proximal Development (ZPD). However, the qualitative data suggests that at the heart of this gain is an increase in "noticing" beyond the figures. Feedback is not a correction of mistakes but a personalised discussion and dynamic negotiation of meaning by which learners internalise complex structures within their Zone of Proximal Development (ZPD).

This study has various consequences for writing instructors and curriculum developers, which are as follows:

1. Value before correctness: Errors in many traditional methods of writing instruction are severely penalized, which often cojles students into "safe," limited linguistic forms. Feedback sessions should therefore be consciously structured to promote structural risk-taking and experimentation with subordination and embedding, even at the cost of generating, temporarily, grammatical errors.
2. Dialogic interactions: Brief (15–20-minute) one-on-one conversations may also be instituted, either as a replacement or as an adjunct to the more traditional mode of handing back papers with comments in red ink. The result of the current research indicates that the spoken interaction between interlocutors in these sessions is indispensable to enhance cognitive awareness and diminish writing anxiety. Scaffolding the "noticing" process: Teacher education programmes should prepare future teachers not only with strong grammatical knowledge but also with skills in interactional scaffolding. Teachers need to learn how to pose strategic questions that help pupils notice their own structural weaknesses, rather than simply correcting or penalising them.

However, the results may have some limitations since the study involved a relatively small number of participants over six weeks. Thus, future studies can involve a delayed posttest to measure the retention of syntactic gains. Furthermore, further studies may look into the effect of other kinds of interactions between individuals on the development of writing genre. Conclusion In conclusion, syntactic complexity is the 'engine' of academic literacy. It is vital that the pre-service teachers learn how to use the 'engine' properly since they are the future language role models of their children. This paper demonstrates the importance of the human element - a discussion partner - in the age of computerised instantaneous responses. Through one-to-one feedback, the students will find it easier to play around with language and develop their academic voice using more sophisticated and complex vocabulary. However, the research does suffer from limitations, specifically, a relatively small number of participants over the course of six weeks. The conclusions are self-explanatory. Further research can involve testing the long-term retention of syntactic gains through delayed post-tests. Another area of study may include exploring the effects of certain kinds of one-to-one interaction (peer or teacher) on the complexity development in other writing genres (e.g. narrative or expository texts).

In other words, syntactic complexity can be seen as the driving force behind academic literacy. Pre-service teachers, who will become the future language models for their students, need to learn how to effectively operate this "engine." The findings highlight the continued importance of the human element—the dialogic partner—even in an increasingly computerised educational environment. One-to-one feedback provides learners with a safe space to experiment with language, enabling them to develop their academic voice through more sophisticated and complex vocabulary.

Statements and Declarations

Nature of the Study (Declaration of Derivation from a Thesis): This study is derived from the Master's thesis titled "*Developing syntactic complexity in writing through one-to-one feedback*", prepared by Mehmet EKİZOĞLU within the Department of English Language Education at Çığ University, Institute of Social Sciences, and accepted in 2019.

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