

How do Online Foreign Language Learners Interact with Different Types of Written Corrective Feedback? A Classroom Study About Processing Feedback and Self-Regulation

Pedro Fernández-Michels*

Universitat Oberta de Catalunya, Spain

Abstract

The impact of written corrective feedback (WCF) on foreign language learning has been investigated for decades, concentrating often on aspects like reducing errors in second drafts and subsequent writing. Several scholars have claimed the need for more process-oriented studies where the processing of feedback by learners in naturalistic settings (as opposed to experimental designs) is observed and interpreted to determine the impact of WCF. This study presents the findings of a research project analysing the screen-recorded think-aloud protocols of 11 learners of German as a foreign language at a Spanish online university. Each learner produced three think-aloud protocols based on three different feedback modalities provided by their teacher in an unaltered online classroom environment. The findings provide insight into how online foreign language learners interacted with different types of WCF and whether this processing of feedback revealed the affordances of each feedback modality in promoting and fostering the use of self-regulation strategies.

Keywords: Written corrective feedback, Self-regulation, Feedback processing, Concurrent think-aloud protocols

Background to the Study

The present study explored the relationship between written corrective feedback provided by the teacher and self-regulated learning in online foreign

*Corresponding Author E-mail: pfernandezmi@uoc.edu

language education. By observing learners' interactions with various feedback modalities, the research sought to uncover how different types of feedback influence both the processing of that feedback and the use of self-regulated learning strategies. The study was conducted at the Open University of Catalonia (UOC) in Spain, a fully online university offering academic programs and language courses through virtual, asynchronous instruction.

In the context of UOC, formative feedback provided by the teacher on written and oral assignments plays a crucial role in communication and guidance. This feedback is essential in a virtual learning environment, where learners lack direct contact with teachers and peers, relying instead on asynchronous interactions via written forums or audio/video blogs. Formative feedback is vital for learning, as it helps students understand their learning goals, identify gaps between their current performance and desired outcomes, and provides guidance on how to close those gaps.

According to authors such as Hattie & Timperley (2007) or Nicol & McFarlane-Dick (2011), feedback is closely linked to the development of self-regulation skills, enabling learners to define and organize their learning paths by carefully considering their goals, needs, resources, and time. However, providing comprehensive feedback is challenging, especially with increasing student-teacher ratios. In foreign language learning (FLL), feedback often focuses on formal aspects of language use, such as correcting errors, and rarely includes systematic feed-forward strategies.

Whereas much of the existing research on written corrective feedback (WCF) in FLL has focused on its impact on learners' writing (Bitchener, 2008; Chandler, 2003; Ferris and Roberts, 2001), emphasizing measurable effects, such as the learner's uptake of feedback, reduced errors, or long-term improvement in subsequent writing, qualitative studies that examine how learners process WCF (Kim & Bowles, 2019; Leow et al., 2022; McBride & Manchón, 2023) and its effects on the use and development of strategies (Fernández-Toro & Furnborough, 2014; Nicol & McFarlane-Dick, 2006; Storch & Wigglesworth, 2010) are much less common, highlighting the need for further research in this area.

Aiming to close this research gap, the study was based on the direct observation of the learners' feedback-based revision, facilitated by the use of concurrent think-aloud protocols.

Methodology

The qualitative study presented in this conference paper was conducted in two online German courses at the Open University of Catalonia. Eleven

participants, from A2.2 and B1.1 levels according to the Common European Framework of Reference for Languages, were observed processing three feedback modalities for three written assignments using screen-recorded think-aloud protocols (Armengol, 2007; Ericsson & Simon, 1980). These protocols were the main data source, complemented by an online questionnaire on participants' perceptions of the feedback and familiarity with self-regulation strategies. The assignments were part of the regular assessment procedures of both courses and consisted of a description of a photo, recounting an event, and an argumentative text in the case of the A2.2-course, and description of an event, a formal letter, and an essay in the case of the B1.1-group. The topics and the sequence of these written assignments were determined by the respective course plans and content blocks.

Learners' utterances from the think-aloud protocols were analysed using reflexive thematic analysis (Braun & Clarke, 2006, 2023), while secondary datasets were examined using summative content analysis (Hsieh & Shannon, 2005). The feedback modalities included: (a) direct feedback with marked errors and corrections in footnotes; (b) standardised indirect feedback with marked errors, preconfigured error codes and metalinguistic information but no corrections; and (c) screen-recorded indirect feedback (no corrections) with oral comments by the teacher.

Representative Results

The study showed that all three feedback modalities led to significant efforts in processing feedback. However, direct feedback generated the most and clearest examples of verbalisation of thoughts and reflections that indicated high and medium depth of processing (DoP). The level of DoP was determined following the DoP coding system presented by Bowles and Gastañaga (2022).

Differences in processing of feedback were caused by the varying information structures of the three modalities, which were compensated for by the participants during feedback-based revision. Figure 1 shows the structure of the information in direct feedback, with the dark jigsaw piece representing the main information given in direct feedback, namely the correct form. Consequently, the learners complemented this information with additional elements such as error-related thoughts and ideas, and learner-related reflections (white jigsaw pieces). The figure reflects that direct feedback mainly led to classification of and reflection on the errors. On the other hand, standardised indirect feedback, offering metalinguistic information without corrections, was primarily used for self-correction, and screen-recorded feedback similarly encouraged self-correction but also fostered a dynamic dialogue with the teacher's voice

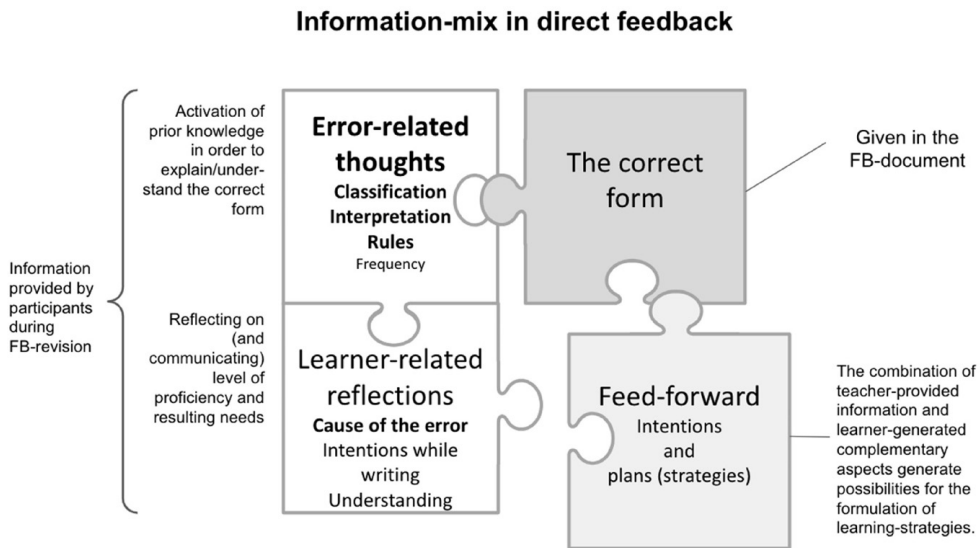


Figure 1. Information mix and processing of direct feedback (FB).

and resulted in fewer misunderstandings compared with standardised metalinguistic feedback.

Furthermore, the data revealed a clear pattern of purposeful use of self-regulation strategies in all three feedback modalities. Participants applied self-regulation strategies, such as reflection, or self-judgment (Zimmerman & Moylan, 2009) during feedback-based revision, and they indicated the intention of applying strategies, such as setting goals or self-monitoring, before and during subsequent writing based on the information in the feedback.

Discussion

The findings provide insights into how learners process WCF during revision tasks, an area with limited prior research. Reflexive thematic analysis identified the specific affordances of each feedback modality, including the feedback's role in guiding revisions, facilitating deep processing, and promoting self-regulation. The findings also challenge some established views on direct feedback as a modality that rarely leads to deep processing.

Additionally, the study addressed the challenges faced by educators with growing student ratios and workloads. The feedback modalities examined widely used techniques that proved to be effective without a high level of personalisation or iterative feedback sequences. The findings highlight these modalities' potential efficacy in promoting learners' activation and empowerment.

References

- Armengol, L. (2007). Los protocolos de pensamiento en voz alta como instrumento para analizar el proceso de escritura. *Revista Española de Lingüística Aplicada*, 20(20), 27–36.
- Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of Second Language Writing*, 17(2), 102–118. <https://doi.org/10.1016/j.jslw.2007.11.004>
- Bowles, M. A., & Gastañaga, K. (2022). Heritage, second and third language learner processing of written corrective feedback: Evidence from think-alouds. *Studies in Second Language Learning and Teaching*, 12(4), 675–696.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2023). Toward good practice in thematic analysis: Avoiding common problems and be(com)ing a knowing researcher. *International Journal of Transgender Health*, 24(1), 1–6. <https://doi.org/10.1080/26895269.2022.2129597>
- Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing. *Journal of Second Language Writing*, 12(3), 267–296. [https://doi.org/10.1016/S1060-3743\(03\)00038-9](https://doi.org/10.1016/S1060-3743(03)00038-9)
- Ericsson, K. A., & Simon, H. A. (1980). Verbal reports as data. *Psychological Review*, 87(3), 215–251. <https://doi.org/10.1037/0033-295X.87.3.215>
- Fernández-Toro, M., & Furnborough, C. (2014). Feedback on feedback: Eliciting learners' responses to written feedback through student-generated screencasts. *Educational Media International*, 51(1), 35–48. <https://doi.org/10.1080/09523987.2014.889401>
- Ferris, D., & Roberts, B. (2001). Error feedback in L2 writing classes: How explicit does it need to be? *Journal of Second Language Writing*, 10(3), 161–184. [https://doi.org/10.1016/S1060-3743\(01\)00039-X](https://doi.org/10.1016/S1060-3743(01)00039-X)
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112. <https://doi.org/10.3102/003465430298487>
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288. <https://doi.org/10.1177/1049732305276687>
- Kim, H. R., & Bowles, M. (2019). How deeply do second language learners process written corrective feedback? Insights gained from think-alouds. *TESOL Quarterly*, 53(4), 913–938. <https://doi.org/10.1002/tesq.522>

- Leow, S. A., Leow, R. P., & Thinglum, A. (2022). WCF processing in the L2 curriculum: A look at type of WCF, type of linguistic item, and L2 performance. *Studies in Second Language Learning and Teaching*, 12(4), 651–673. <https://doi.org/10.14746/ssllt.2022.12.4.6>
- McBride, S., & Manchón, R. M. (2023). Analysing L2 writers' processing of written corrective feedback via written languaging and think-aloud protocols. Methodological considerations. In R. M. Manchón & J. Roca de Larios (Eds.), *Research methods in the study of L2 writing processes* (pp. 337–363). John Benjamins. <https://doi.org/10.1075/rmal.5.16mcb>
- Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199–218.
- Storch, N., & Wigglesworth, G. (2010). Learners processing, uptake, and retention of corrective feedback on writing: Case studies. *Studies in Second Language Acquisition*, 32(2), 303–334. <https://doi.org/10.1017/S0272263109990532>
- Zimmerman, B. J., & Moylan, A. R. (2009). Self-regulation: Where metacognition and motivation intersect. In D. J. Hacker, J. Dunlosky & A. C. Graesser (Eds.), *Handbook of metacognition in education* (pp. 299–315). Routledge.