

# **Interlanguage in Motion: Error Depth and AI-Mediated Scaffolding as a Mode of Dynamic Error Analysis**

**Avik Mukherjee (PhD scholar) – University of Hyderabad**  
**avik.mukher@gmail.com**

Error Analysis as a linguistic framework rose to prominence in the late 1960s, marking a paradigm shift in second language acquisition research. Contrastive Analysis (Lado, 1957) had earlier attempted to predict learner errors mainly through structural differences between the first language and the target language, treating second language (L2) errors as signs of first language (L1) interference to be identified and removed. Corder's (1967) repositioned this understanding and proposed that errors functioned as hypothesis-testing evidence which would be systematic reflections of a learner's active engagement with the target language and will give insights into their evolving linguistic competence. This was later taken a step further by Selinker (1972), whose notion of interlanguage established the learner's developing language system as rule-governed and transitional in its own right, which is neither reducible to the L1 nor identical to the target language.

However, when it has come to conducting Error Analysis research, the methodological process has remained largely unchanged. Learner output is collected, tagged, counted, and categorised, which is a practice that, as Ellis (1994) notes, has dominated the field across decades of corpus-based studies. Even when longitudinal designs are employed, the resulting data still appears as a static, sequenced series of snapshots. What such approaches do not account for is any form of scaffolded interaction in the process of error correction. Hence, the space between the error and its resolution remains unexamined.

The present study addresses this gap. This paper looks at the different L2 errors produced by Bengali-speaking primary school children and makes an attempt to measure what the researcher defines as error depth—the number of scaffolding exchanges required for a learner to independently arrive at the correct target form. To this end, an AI agent was developed whose objectives was to deliver feedback through a series of metalinguistic, detective-themed hints, guiding the primary school L2 learner through an engaging, scaffolded, and self-directed correction pathway. The pilot reported here draws on ten Bengali-speaking children (ages 8–10) in English-medium schooling, whose written errors were elicited through both open free-writing and structured elicitation tasks. In order to quantify the error depth consistently, the agent advanced through a fixed, theoretically motivated sequence of feedback moves, from an implicit cue locating the error, through metalinguistic feedback and elicitation, to explicit correction only as a last resort. This follows the corrective-feedback typology of Lyster and Ranta (1997) and the graduated regulatory scale of Aljaafreh and Lantolf (1994). This sequence was applied uniformly to every learner, and depth was operationalised as the rung at which each error was resolved.

Pilot findings reveal error patterns such as article omission, copula deletion, word order transfer and prepositional substitution. Error depth data further illuminates the degree of scaffolding required to remediate each error type and surfaces early fossilisation patterns that frequency-based corpus analysis alone cannot detect. Given the modest scale of the pilot, differences across error types are reported as descriptive tendencies rather than confirmed effects, and the consistency of the depth coding is assessed through independent re-scoring of a subsample of the interaction logs. This study positions AI-agent mediated written corrective feedback and scaffolding as a methodologically distinct mode of interlanguage and L2 error

elicitation and argues for its broader implications within Dynamic Systems Theory accounts of second language acquisition (Larsen-Freeman, 1997; de Bot, Lowie, & Verspoor, 2007), as well as for the scale, effect, and scope of Agentic AI tools in second language learning contexts.

**Keywords:** Error Analysis, Interlanguage, Contrastive Analysis, AI scaffolding, error depth, Zone of Proximal Development, corrective feedback, fossilisation, Dynamic Systems Theory

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