

Summary of Research: Elicited Imitation as a Language Assessment Instrument

Description

Elicited Imitation (EI) is a testing method in which participants hear an utterance in the target language and are prompted to repeat the utterance as accurately as possible. It is built on working (short term) memory research that shows that the storage capacity of unrelated items in the working memory is limited. If the participant is completely unfamiliar with the language, each syllable of the utterance will count towards the limited capacity, reducing the participant's ability to accurately repeat utterances longer than a few syllables. However, a participant can increase what is stored in the working memory by "chunking" individual syllables together into larger units of meaning (Cowan et al., 1992; Cowan 2001; Miller, 1956). More recent research in language processing has shown that as a learner becomes more proficient in a language, she increases her ability to piece together individual syllables into larger "chunks" of meaning through her expanded knowledge of grammar and vocabulary (Baddeley et al., 1998; Ellis, 2001; Gathercole & Baddeley, 1993; Speciale et al., 2004). In this way, Elicited Imitation can reliably approximate a learner's proficiency level by measuring the accuracy of the repetition of items of various lengths and complexity (Bley-Vroman & Chaudron, 1994; Burdis, 2014; Chaudron & Russell, 1990; Erlam, 2009; Vinther, 2002).

Brief History

EI originated in the academic literature in the 1960s. The original research was published using EI as a research method to (a) better understand the language development and acquisition process of American children learning English as their first language (Fraser, Bellugi, & Brown, 1963; see Lust, Flynn, & Foley, 1996; Slobin & Welsh, 1973 for reviews) and (b) assess first language disorders in children (Dailey & Boxx, 1979; Lee 1970; Menyuk, 1964). Naiman (1974) was the first to apply this methodology to second language acquisition research, but he encountered some resistance by those questioning EI's validity (Hamayan et al., 1977; Mcdade, Simpson, & Lamb, 1982; Smith, 1973; see Vinther 2002 for a review). It wasn't until a couple decades later that EI began to be recognized as a valid instrument to approximate oral proficiency of English (Bley-Vroman and Chaudron, 1994; Ellis, 2005, 2006; Erlam, 2006, 2009; Graham et al., 2008; Tomita, Suzuki, & Jessop, 2009).

Validity

EI has been shown to correlate highly with other standard measures of oral proficiency in multiple languages, achieving correlations as high as 0.94 (Burdis, 2014; Cook et al., 2011; Erlam, 2009; Graham et al., 2008; Graham, McGhee, & Millard, 2010; Millard, 2011). It achieves such high correlations because it is assumed to be reconstructive in nature, that is the participant must process and reconstruct the prompt—not just rotely repeat it. The participant cannot accurately reconstruct and thus reproduce longer, more complex items if the participant lacks the proper grammatical and lexical competence in her interlanguage (Tomita, Suzuki, & Jessop, 2009; Vinther, 2002).



References

- Baddeley, A., Gathercole, S., & Papagno, C. (1998). The phonological loop as a language learning device. Psychological Review, 105, 158–173.
- Bley-Vroman, R. & Chaudron, C. (1994). Elicited imitation as a measure of second-language competence. In E.E. Tarone, S. Gass & A.D. Cohen (Eds.), Research methodology in second-language acquisition. pp. 245-261. Hillsdale, NJ: Lawrence Erlbaum.
- Burdis, J. R. (2014). Designing and evaluating a Russian elicited imitation test to be used at the Missionary Training Center (Doctoral dissertation). Retrieved from BYU ScholarsArchive. Paper 4008.
- Chaudron, C. and Russell, G. (1990). The validity of elicited imitation as a measure of second language competence. Paper presented as "The status of elicited imitation as a measure of second language competence" at the ninth World Congress of Applied Linguistics, Thessaloniki, Greece.
- Cook, K., McGhee, J., & Lonsdale, D. (2011, June). Elicited imitation for prediction of OPI test scores. Paper presented to the Proceedings of the Sixth Workshop on Innovative Use of NLP for Building Educational Applications, Portland, OR, 2011.
- Cowan, N., Day, L. Sauls, J. S, Keller, T.A. Johnson, T. and Flores, L. (1992). The role of verbal output time in the effects of word length on immediate memory. Journal of Memory and Language. 31, 1, 1-17.
- Cowan, N. (2001). The magical number 4 in short-term memory: A reconsideration of mental storage capacity. Behavioral and Brain Sciences, 24, 87–185.
- Dailey, K., & Boxx, J. (1979). A comparison of three imitative tests of expressive language and a spontaneous language sample. Language, Speech and Hearing Services in the Schools, 10, 6–13.
- Ellis, R. 2001. Introduction: Investigating form-focused instruction. In *Form-focused instruction* and second language learning, ed. R. Ellis, 1–46. Oxford: Blackwell Publishers.
- Ellis, R. (2005). Measuring implicit and explicit knowledge of a second language: A psychometric study. Studies in Second Language Acquisition, 27, 141–172.
- Erlam, R. (2006). Elicited imitation as a measure of L2 implicit knowledge: An empirical validation study. Oxford: Oxford University Press.
- Erlam, R. (2005). Language aptitude and its relationship to instructional effectiveness in second language acquisition. Language Teaching Research, 9(2), 147-171.
- Erlam, R. (2009). The Elicited Imitation Test as a Measure of Implicit Knowledge. In: Implicit and explicit knowledge in second language learning, testing and teaching. Ed: Ellis,R. Bristol, UK: Multilingual Matters.



- Fraser, C., Bellugi, U., & Brown, R. (1963). Control of grammar in imitation, comprehension, and production. Journal of Verbal Learning and Verbal Behavior, 2, 121–135.
- Gathercole, S., & Baddeley, A. D. (1993). Working memory and language. Hove, UK: Erlbaum.
- Graham, R., Lonsdale, D., Kennington, C., Johnson, A., & McGhee, J. (2008). Elicited imitation as an oral proficiency measure with ASR scoring. In N. Calzolari (Conference Chair), K. Choukri, B. Maegaard, J. Mariani, J. Odjik, S. Piperidis, and D. Tapias, (Eds.), Proceedings of the 6th International Language Resources and Evaluation Conference (LREC'08), Marrakech, Morocco.
- Graham, R., McGhee, J., & Millard, B. (2010). The Role of Lexical Choice in Elicited Imitation Item Difficulty. In Selected Proceedings of the 2008 Second Language Research Forum, (Ed.) Matthew T. Prior et al., 57-72. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #2385.
- Hamayan, E., Saegert, J., & Larudee, P. (1977). Elicited imitation in second language learners. Language and Speech, 20, 86–97.
- Lee, L.L. (1970). A screening test for syntax development. Journal of Speech and Hearing Disorders, 35, 2, 102-112.
- Lust, B., Flynn, S., & Foley, C. (1996). What children know about what they say: Elicited imitation as a research method for assessing children's syntax. In D. McDaniel, C. McKee & H. Smith Cairns (Eds.). Methods for assessing children's syntax (pp. 55–76). Cambridge, MA: MIT Press.
- McDade, H.L., Simpson, M.A., and Lamb, D.E. (1982). The use of elicited imitation as a measure of expressive grammar: a question of validity. Journal of Speech and Hearing disorders, 47, 1, 19-24.
- Millard, B. & Lonsdale, D. (2011, March). Developing French sentences for use in French oral proficiency testing. Paper presented at the Linguistic Symposium on Romance Linguistics, University of Ottawa, Canada.
- Miller, G. A. (1956). The magical number seven, plus or minus two: some limits on our capacity for processing information. Psychological Review 63 (2), 81-97.
- Menyuk, P. (1964). Comparison of grammar of children with functionally deviant and normal speech. Journal of Speech and Hearing Research, 7, 3, 109-121.
- Naiman, N. (1974). The use of elicited imitation in second language acquisition research. Working Papers on Bilingualism, 2, 1–37.
- Slobin, D.I., & Welsh, C.A. (1973). Elicited imitation as a research tool in developmental psycholinguistics. In C. Ferguson & D. Slobin (Eds.). Studies of child language development (pp. 485–497). New York: Holt, Rinehart & Winston.
- Smith, C. (1973). An experimental approach to children. In C. Ferguson & D. Slobin (Eds.).



- Studies of child language development (pp. 497–521). New York: Holt, Rinehart & Winston.
- Speciale G., Ellis N. C., and Bywater T. (2004). "Phonological sequence learning and short-term store capacity determine second language vocabulary acquisition," Appl. Psycholinguist. 25, 293–320.
- Tomita, Y., Suzuki, W. and Jessop, L. (2009). Elicited Imitation: Toward Valid Procedures to Measure Implicit Second Language Grammatical Knowledge. TESOL Quarterly, 43, 2, 345-350.
- Vinther, T. (2002). Elicited imitation: A brief review. International Journal of Applied Linguistics, 12, 54–73.