

Inferences in L2 Reading and Listening: A Teacher Questionnaire

Deirdre J. Derrick

Northern Arizona University

Abstract

The ability to make inferences allows readers and listeners to understand information that has not been explicitly stated. Inferences play an important role in comprehension of both first and second language content. Anecdotal evidence suggests that teachers of English-as-a-second language reading and listening courses may not have received adequate training in how to teach and assess their students' inferencing ability. The present study represents an attempt to corroborate anecdotal evidence with empirical evidence. A questionnaire to determine the extent of teachers' training in teaching inferences was piloted with eight listening and reading teachers at a North American IEP. They responded to questions and also indicated areas of the questionnaire that were unclear or which could be improved in other ways. Their responses indicated several potential areas for improvement. This report discusses what these areas were and the changes that were made to the questionnaire to address the issues.

Background

There has been limited research on inferences in second language reading and listening. In the field of first language reading, several researchers have proposed taxonomies of inference types (e.g., Graesser, Singer, & Trabasso, 1994; Trabasso & Magliano, 1996). Some of these have informed studies in second language reading (Chikalanga, 1992; Lee, 2014), but only with narratives. No research has been done with inferences in expository texts. Additionally, there has been no research to explore types of inferences in second language listening.

A lack of research in inferences can manifest in different ways. One way is in textbook design, and another is in teacher training. With no theoretical basis to draw from, the way that inferences are presented in second language reading and listening textbooks may be lacking or may have gaps. In teacher education, the ability to make inferences is taught as a skill or strategy that students should have, but teacher education textbooks rarely go beyond this general information about inferencing (e.g., Grabe, 2009; Vandergrift & Goh, 2012).

Anecdotal evidence suggests that teachers experience frustration with trying to teach inferencing to their students, trying to develop materials to practice inferencing, and trying to write test questions to assess inferencing ability. There is no empirical evidence to support this statement, and even if this is true, there is no information about the extent of this frustration. Support for research in inferences can be gained through administering a questionnaire to second language teachers to determine how they feel about teaching and assessing their students' inferencing ability in reading and listening.

Research Questions

The questionnaire was designed to accomplish three goals. The first was to find out which textbooks North American IEP teachers use for EAP reading and listening classes. The

second was to find out teachers' opinions of how the textbooks present and practice inferences. The third was to find out teachers' training and comfort level in teaching, assessing, and identifying inferences. To prepare the questionnaire to address these goals, a pilot study was conducted with the research question:

1. What areas for improvement can be identified on the questionnaire?

Methods

The questionnaire was piloted in April 2016. Eight listening and reading teachers from the Program of Intensive English at Northern Arizona University were recruited to take the questionnaire and to provide feedback on anything that they found confusing. They were given paper copies of the questionnaire and encouraged to write on it if they had questions or suggestions. Their responses were entered into SPSS and analyzed, and their hand-written comments about the questionnaire were consolidated into a single document.

Results

Overall, the questionnaire succeeded in eliciting responses that would answer the research questions listed above. The analysis of data and comments indicated six areas for potential revisions. These are discussed below.

The first area was the need to consider level in analyzing textbooks for inferences. Textbooks intended for lower level students tended to not include inferences. If responses to questions about the presence of inference explanation and practice in textbooks are considered together, this could lead to deflation of numbers. That is, it may appear that fewer textbooks, as a whole, present inferences when in fact the case is that there is a discernable difference between low and high proficiency textbooks that should be considered. The pilot data did not include

many lower-level textbooks, but of those included, inferences were not reported as being present. Analysis of the actual questionnaire data is expected to provide more information.

The second area was the reliability of multi-item scale created look at training in teaching and assessing inferences. Several items from the questionnaire were combined to create a multi-item scale, but the reliability of this scale was low (Cronbach's Alpha = .173). This low reliability coefficient means that items in the scale are not working together to measure the same construct. To address this issue, two multi-item scales were created using pilot data. The first scale measured training in teaching reading and listening inferences, and the second scale measured training in assessing reading and listening inferences. (Multi-item scales based on the two skills, one for listening and one for reading were also considered, but this did not show any improvement in reliability). The pilot reliability (Cronbach's Alpha) for the teaching scale was .98 and for the assessing scale it was 1.00. Analysis of the actual questionnaire results will therefore include two scales rather than one.

The third area was confusion over the terms professional development, education, and self-study. Several respondents hand-wrote that they had not received formal training but that they had taught themselves about inferences. Two steps were taken to address this issue. First, sections II and III being with the following definitions and explanations: Professional Development = formal on-the-job training (e.g., workshops); Education = formal courses taken; Self-study IS NOT considered professional development or education for the purposes of this survey. These are italicized to draw the respondent's attention to them. To further highlight the different, and to obtain information about how much knowledge comes from formal means (education and professional development) versus informal means (self-study), three questions

were added (12, 20, 26). These questions ask about self-study in reading inferences, listening inferences, and types of inferences.

The fourth area was equivalence of degrees from different countries. One respondent hand-wrote that he did not possess a BA or MA, but he had the equivalent of an MA from his country. To address this, an explanation was added to question number 27. This question formerly asked: I currently possess a BA, MA, or PhD. The question now asks: I currently possess the equivalent of a BA, MA, or PhD.

The fifth area was the representativeness of the pilot group of the population. The population for this survey is reading and listening teachers working in CEA-accredited IEPs in North America. The pilot group consisted of teachers in a single IEP that is undergoing the CEA accreditation process. Several of the pilot group respondents are interested in language assessment. This may have influenced responses about assessing inferences in reading and listening by inflating them. Responses from the population may not be quite as high.

The sixth area was related to comments from two respondents who noted that teachers often do not use the entire textbook. They pointed out that explanation of or practice in making inferences may be present in some but not all chapters of the textbook. This may result in an inaccurate picture of the textbook as a whole, since teachers may respond based on the chapters they were familiar with.

Relevance to PIE and Second Language Learning

This study focuses on training in teaching and assessing inferences in listening and reading. Although the results of the pilot study of the questionnaire do not have immediate implications for the PIE or for second language learning, the results of the actual questionnaire will potentially have implications for both areas (see Appendix for the revised survey). The

results will provide information on how comfortable teachers feel teaching and testing inferencing ability, as well as their amount of training to do so. These results can guide further research in second language inferencing. They can also be used to identify areas where teachers feel they need support. Both areas can benefit both learners and teachers by leading to improved teacher education.

References

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- Lee, H. C. (2014). Inferencing behavior of ESL readers. *Electronic Journal of Foreign Language Teaching, 11*, 21-37.
- Trabasso, T., & Magliano, J.P. (1996). Conscious understanding during comprehension. *Discourse Processes, 21*, 255-287. doi: 10.1080/01638539609544959
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Appendix
Revised Questionnaire

Inferences in Reading and Listening

The ability to make inferences allows ESL students to understand written or spoken information that has not been explicitly-stated.

This brief survey asks about inferences in reading and listening textbooks and about your training in teaching and testing students' inferencing ability.

Please have your reading and/or listening textbook(s) near you.

This survey will take less than 10 minutes.

I. Screening

1. Do you currently teach reading and/or listening in an intensive English program (IEP) in the United States?

(select one)

YES

NO

[if **YES**, go to Question 2]

[if **NO**, exit survey.]

II. Reading and Listening Textbooks

Please consider all of the reading and/or listening classes you currently teach to complete the table:

	Is this class reading or listening?	What is your primary textbook (name and level)?	Does the textbook explain inferences?	Does the textbooks offer practices in making inferences?	Do you think that the textbook is adequate for teaching inferences?	Do you need to use additional materials to teach inferences?	If yes, what do you use to supplement? (e.g., internet, other textbooks)
2	R / L		Y / N	Y / N	Y / N	Y / N	
3	R / L		Y / N	Y / N	Y / N	Y / N	
4	R / L		Y / N	Y / N	Y / N	Y / N	
5	R / L		Y / N	Y / N	Y / N	Y / N	

II. Reading Training

Professional Development = formal on-the-job training (e.g., workshops)

Education = formal courses taken

Self-study IS NOT considered professional development or education for the purposes of this survey.

	Place an 'X' in the appropriate box	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
9	As part of my education or professional development, I have received training about what making an inference in reading entails.					
10	As part of my education or professional development, I have received training in teaching students how to make inferences while reading.					
11	As part of my education or professional development, I have received training in teaching students how to respond to reading inference questions.					
12	I have taught myself (self-study) about inferences in reading.					
13	I feel comfortable creating activities that give students practice in making inferences in reading.					
14	I have received training in writing inference test questions for reading.					
15	I feel comfortable creating questions to test students' inferencing ability in reading.					
16	It is important to test inferencing ability in EAP reading classes (intermediate students and above).					

III. Listening Training

Professional Development = formal on-the-job training (e.g., workshops)

Education = formal courses taken

Self-study IS NOT considered professional development or education for the purposes of this survey.

	Place an 'X' in the appropriate box	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
17	As part of my education or professional development, I have received training about what making an inference in listening entails.					
18	As part of my education or professional development, I have received training in teaching students how to make inferences while listening.					
19	As part of my education or professional development, I have received training in teaching students how to respond to listening inference questions.					
20	I have taught myself (self-study) about inferences in listening.					
21	I feel comfortable creating activities that give students practice in making inferences in listening.					
22	I have received training in writing inference test questions for listening.					
23	I feel comfortable writing questions to test students' inferencing ability in listening.					
24	It is important to test inferencing ability in EAP listening classes (intermediate students and above).					

IV. General Information

	<i>Place an 'X' in the appropriate box</i>	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
25	As part of my education or professional development, I have received training on different types of inferences.					
26	I have learned about different types of inferences on my own (e.g., self-study).					
27	I feel comfortable identifying different types of inferences.					
28	I would like more information about inferences.					

29	I have worked as an English language teacher (ESL and/or EFL):	1-3 years	4-6 years	7-9 years	10 or more years
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30	I currently possess the equivalent of a:	B.A.	M.A.	Ph.D.
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Thank you for participating in this survey. Your responses will be used to inform further research on inferences.

If you have any questions or you wish to know the results of this survey, please e-mail Deirdre J. Derrick at djd274@nau.edu