

Definitions in academic lectures: A preliminary report

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Introduction

ESL/EFL students who pursue their studies in English at the postsecondary level face a number of challenges (Berman & Cheng, 2000; Cheng, Myles & Curtis, 2004), including listening to the lectures typical of English-medium colleges or universities (Flowerdew, 1994; Tauroza, 2001), learning academic vocabulary (e.g., Corson, 1997; Coxhead, 2006), and mastering the technical vocabulary of their chosen disciplines (Chung & Nation, 2003; Lessard-Clouston, in press). One way to study the possibilities for ESL students' acquisition of specialized vocabulary is to examine the natural input they receive during their regular course lectures and then to consider what implications such input might offer for how to teach them in ESL or EAP classes. This brief report aims to do just that, describing preliminary research.

Background

There are now clear guidelines from research for ESL vocabulary learning and teaching (Nation, 2001, 2006; Zimmerman & Schmitt, 2005). Yet to date there has been little research on vocabulary learning through academic listening. Three relevant studies are noteworthy.

Kelly (1991) showed that "lexical ignorance" was the main obstacle faced by advanced EFL learners in a science faculty in France. By analyzing transcription errors made by at least 20% of his participants, Kelly noted that lexical problems (e.g., "comes to the crux/*crocks", p. 142) represented 48.5% of all errors, while perceptual ones accounted for 38.5% and syntactical ones only 13%. More recently, Vidal (2003) studied EFL vocabulary learning through academic listening among 122 first-year university students in Spain and concluded that listening to videotaped tourism lectures produced a significant gain in the vocabulary learning of her ESP subjects. Vidal demonstrated the potential for vocabulary learning through aural academic input, noting that students' test performance was much better with technical terms than with low-

frequency and academic ones. Vidal (2003) stated that more research is therefore needed into the role of academic, technical, and low frequency words in academic lectures.

One aspect of academic lectures to consider is their use of *definitions* of various types of words. Flowerdew (1992), for example, outlined a corpus study of definitions in science lectures and categorized all of the definitions in eight teachers' randomly selected videotaped classes for EFL students in Oman. Some key results are that definitions were common, averaging one every 1 minute 55 seconds, but there was considerable variation, and definitions were sometimes grouped together, like "signposts" which structured whole lectures or sections, or they were "embedded" throughout lectures in order to help audiences understand terms being introduced during a class (pp. 208-209). In Flowerdew's (1992) study there were four types of definitions:

- *Formal*: Precise definitions, usually following the "structure of term, class, and distinguishing characteristic(s)... 'An A is a B which C'" (p. 209).
- *Semi-formal*: A definition which does not mention the class of the word and which presents a less precise meaning but the key characteristic(s) (p. 210).
- *Substitution*: A word, word-part, or phrase that fits one of three types: synonym, paraphrase, or derivation (p. 211).
- *Ostensive*: A definition "is performed by indicating some visual stimulus such as an object, a photograph, or a diagram" (p. 212).

Flowerdew further categorized formal and semi-formal definitions into one of four types: behavior/process/function, composition/structure, location/occurrence, or attribute/property (p. 210). Syntactically, relative clauses were often used, and half of the definitions were signaled lexically with "call/mean(s)/known as" (p. 212). Flowerdew (1992) concluded that "the characteristics of definitions are likely to vary according to subject matter and audience" (p. 215), and that "further research could determine to what degree" variation exists (p. 216).

Definitions in academic lectures: A case study in theology

The context for the study was a large, private Christian graduate school of theology in a major city in central Canada. The specific context was Introduction to Theology I, a core,

required class for all degree students. Its course description said it is an introductory class on Christian teachings in the evangelical tradition, and that topics include humanity, creation, sin, revelation, Scripture, and the doctrine of God. The class met for 90 minutes twice a week over four months, during which I attended and audio taped all 23 Introduction to Theology I lectures in the fall term and collected all course-related materials (textbooks, handouts, etc.). Later I transcribed all the lectures (see Lessard-Clouston, 2005), but for this analysis I chose four (one from each month on different topics), developed a coding sheet with the word or phrase, the type and category of definition, read through the lecture transcripts and my lecture notes to find and categorize definitions used, and examined their use during the lectures.

The case study aimed to answer four research questions. First, what similarities and differences might be observed between definitions in science (Flowerdew, 1992) and these academic theology lectures? Second, what types of definitions are used in the Introduction to Theology I course lectures? Third, what is their frequency and distribution in the lectures? And fourth, how are definitions used in both oral and written form during the lectures?

Results

In relation to the first research question, a number of similarities appeared. There were three types of definitions in the theology lectures, which revealed various levels of precision or detail, and some of the definitions could be further categorized, as in Flowerdew's (1992) data. Definitions here did tend to cluster, but were also used throughout, as "signposts" structuring lectures, though they were also often "embedded" with low focus. Definitions in theology often included relative clauses, and were signaled lexically with "define" or "definition". Some differences between definitions in science and theology were also apparent. In these lectures, for example, no ostensive only definitions were observed, though visuals were used. Two of

Flowerdew's (1992) formal and semi-formal categories (behavior/process/function and composition/structure) were also not present here, and overall the number and frequency of definitions in the theology lectures was less than in the Flowerdew (1992) study.

The results for the second and third questions are summarized in Table 1, which provides the lecture data at a glance, including the number of three types of definitions and the average frequency per lecture. Overall, 68 different terms or phrases were defined, in 137 definitions in the four lectures studied, so that some terms (like 'theology') were defined in more than one lecture, using different types of definitions. Formal and semi-formal definitions were the most common, and almost all of the definitions were for specialized theological terms or phrases.

Table 1 The Data at a Glance: Lecture Information, Number and Types of Definitions

Information/Type	Lecture 2	Lecture 10	Lecture 17	Lecture 21	Total
Length of Lecture	81 min.	87 min.	83 min.	84 min.	335 min.
Average Frequency of Definitions (1 per...)	1 min. 33 sec.	3 min.	2 min. 52 sec.	3 min. 7 sec.	2 min. 27 sec.
Total No. of Definitions	52	29	29	27	137
Formal Definitions	7	13	19	12	51
→Attribute/Property	7	13	19	12	51
Semi-formal Definitions	28	7	5	11	51
→Attribute/Property	27	7	5	11	50
→Location/Occurrence	1	0	0	0	1
Substitution Definitions	17	9	5	4	35
→Paraphrase	15	7	4	2	28
→Synonym	1	0	0	2	3
→Derivation	1	2	1	0	4

In answer to the fourth research question, some definitions functioned like signposts to structure lectures. Here is one semi-formal definition for a term that was written on the board:

Lecture 2, Page 2 Excerpt - Semi-formal, Attribute/property "prolegomena"

ah / the word prolegomena / essentially has to do / or means / ah / how one approaches the study of a particular discipline / ah how one approaches the study of a particular discipline /

Some definitions were repeated in lectures for note taking, as in the “prolegomena” example.

Other terms defined appeared on class handouts and were embedded in the lecture narrative:

Lecture 21, Page 15 Excerpt - Substitution, Paraphrase “theodicies”

now / let me just rehearse a few uh traditional theodicies here / that is explanations of evil // um
and let me um // let me mention uh / a number here including a few that Migliore has /

Some formal definitions from printed sources were copied on handouts and reviewed orally:

Lecture 10, Page 12 Excerpt - Formal, Attribute/property “inspiration of the bible”

uh Millard Erickson / in uh his text defines inspiration this way / and I think it’s a helpful
definition because it’s / it’s very clear / he says by inspiration of the uh / of the bible / by
inspiration of the bible / we mean / by inspiration of the bible we mean that supernatural
influence of the Holy Spirit // upon the biblical writers / which rendered their writings / by
inspiration of the bible we mean that supernatural influence of the Holy Spirit upon the biblical
writers which rendered their writings / an accurate record of the revelation / an accurate record of
the revelation / and which resulted in what they wrote actually being the Word of God / and
which resulted in what they wrote / actually being the Word of God /

Some definitions were substitutions with word derivation, which was usually noted on the class
white board. In two cases, there was ostensive use of diagrams along with elaborate formal oral
definitions. In summary, several types and categories of definitions were used in theology, and it
was not unusual in the lectures I observed and transcribed for there to be some written support
for the definitions in lecture outlines, on handouts, or on the class white board.

Implications for learning and teaching specialized vocabulary

While there are some limitations to these preliminary findings, which represent just one
course and lectures from only one professor, there are nonetheless some implications. First, in
these lectures there are different types of definitions for mostly technical theological vocabulary,
and we can therefore encourage students by letting them know their value and by preparing them
to use them for vocabulary learning. We should also make sure that advanced ESL students have
a firm grasp of academic vocabulary (Coxhead, 2006), since it does not seem to be defined much
here. Second, as there is a clear nominal emphasis in definitions in theology, it should be noted

that technical vocabulary seems to involve mostly nouns and noun phrases. Third, definitions here are often signaled with the words “define(d)”, “that is,” etc., and we can make our students aware of this reality. Fourth, ESL/EAP teachers should train students to use all of the available resources in classes or lectures (e.g., handouts, lecture outlines, and notes on the board) to learn vocabulary. Students should also become familiar with any vocabulary learning resources in their content courses, such as recommended dictionaries and textbook glossaries.

Conclusion

This paper has provided background on vocabulary learning and academic lectures, and gleaned much from a case study of various types of definitions in the lectures and materials of an introductory graduate theology course. Some teaching implications have also been noted.

References

- Berman, R., & Cheng, L. (2000). English academic language skills: Perceived difficulties by undergraduate and graduate students, and their academic achievement. *Canadian Journal of Applied Linguistics*, 4, 25-40.
- Cheng, L., Myles, J., & Curtis, A. (2004). Targeting language support for non-native English-speaking graduate students at a Canadian university. *TESL Canada Journal*, 21(2), 50-71.
- Chung, T. M., & Nation, P. (2003). Technical vocabulary in specialised texts. *Reading in a Foreign Language*, 15, 103-116.
- Corson, D. (1997). The learning and use of academic English words. *Language Learning*, 47, 671-718.
- Coxhead, A. (2006). *Essentials of teaching academic vocabulary*. Boston: Houghton Mifflin.
- Flowerdew, J. (1992). Definitions in science lectures. *Applied Linguistics*, 13, 201-221.
- Flowerdew, J. (Ed.). (1994). *Academic listening: Research perspectives*. Cambridge: Cambridge University Press.
- Kelly, P. (1991). Lexical ignorance: The main obstacle to listening comprehension with advanced foreign language learners. *International Review of Applied Linguistics in Language Teaching*, 29, 135-149.
- Lessard-Clouston, M. (2005). *Learning and use of specialized vocabulary among native and non-native English-speaking graduate students of theology*. Unpublished doctoral dissertation, OISE/University of Toronto, Ontario, Canada.
- Lessard-Clouston, M. (in press). Breadth and depth: Specialized vocabulary learning in theology among native and non-native English speakers. *Canadian Modern Language Review*, 63.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, P. (2006). Language education – vocabulary. In K. Brown (Ed.), *Encyclopedia of language and linguistics*, Second edition (Volume 6, pp. 494-499). Oxford: Elsevier.
- Tauroza, S. (2001). Second language lecture comprehension in naturalistic controlled conditions. In J. Flowerdew & M. Peacock (Eds.), *Research perspectives on English for academic purposes* (pp. 360-374). Cambridge: Cambridge University Press.
- Vidal, K. (2003). Academic listening: A source of vocabulary acquisition? *Applied Linguistics*, 24, 56-89.
- Zimmerman, C. B., & Schmitt, N. (2005). Lexical questions to guide the teaching and learning of words. *CATESOL Journal*, 17, 164-170.