
Poster Presentation

Learned Lectures: Listening Material for Science and Engineering Majors

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Providing EFL students with listening material that is relevant to their majors is necessary if they are to be adequately prepared for a future career in industry or academia. However, for English language teachers (ELTs) without a background in their students' major, producing such texts can be a daunting challenge. Furthermore, locating ESP listening exercises that are appropriate can be both a time-consuming and near fruitless endeavour. That task faces the authors of this paper, who are developing an ESP programme for science and engineering students despite not having a background in either area. This paper describes a possible solution to this problem: A self-access database of English language lectures by content experts called Learned Lectures (www.learnedlectures.com). This paper begins by delineating the criteria used to analyse listening-content appropriacy, before outlining the decisions made, and issues faced, during the development of the Learned Lecture Series.

Criteria for Analysing Listening-Content Appropriacy

With the growth of the Internet, there is now an array of listening material available online free of charge (e.g., Ted Talks, MIT Open Courseware, Apple's iTunes U, Randall's ESL Cyber Listening Lab, ello). To assess the appropriacy of

these listening resources for an ESP Engineering course at a university in western Japan, five criteria were developed by the authors:

Authenticity: Generally containing features (e.g., redundancy and false starts) associated with authentic language use

Representativeness: Stylistically similar to university lectures or conference presentations

Content Specificity: Content relevant to the fields of science and engineering and suitable for tertiary level students

Length Appropriacy: Five to ten minutes in length

Level Appropriacy: Lexically and grammatically appropriate for learners of intermediate proficiency

Upon analysis of the extant resources mentioned above, it was determined that none met all five criteria, and thus we decided to explore an in-house solution.

The Design of Learned Lectures

When considering the design of possible in-house solutions, the following five supplementary criteria were also considered to be of importance:

1. Due to differences in student proficiency it should be self-access and contain scaffolding to aid comprehension.
2. It should contain examples of both native and non-native English.
3. It must be inexpensive to make and freely available.
4. As it is to be used by students from different departments within the engineering faculty, the content should represent both science and engineering, and the various branches of engineering.
5. It should be a rewarding experience for the presenters.

In light of the above, the decision was made to create an online self-access database of lectures in English by content experts of various L1s. Lectures, given by volunteer post-graduate students and faculty from diverse fields within the engineering and science faculty, provide science and engineering students access to content-specific listening material to help them better understand the type of lectures/presentations they might encounter in a classroom and/or at

international conferences.

On expressing an interest in presenting, speakers can, if they wish, consult with ELTs to resolve any linguistic problems they may have or receive advice about presentation style and/or slide design. Once a presenter feels prepared to deliver the presentation, the lecture is recorded. It is subsequently transcribed and subtitled, and the script is analysed using VocabProfiler (Cobb, Web Vocabprofile). The video, script, and lexical profile are then uploaded to the website (www.learnedlectures.com) and made available to students. It should be noted here that the term 'students' does not necessarily mean only the students that might participate in the programme that served as the impetus of this project, but any user of the site. Indeed, this site, through a Creative Commons license, is open to anyone who wishes to use it.

Using the criteria for analysing listening-content appropriacy (outlined above), it is possible to see how the Learned Lectures self-access database of presentations meets the course needs defined by the course creators.

Authenticity: Although the lectures are practiced, they are not overly polished, as they have not been memorized by the speakers. Therefore, they contain features of natural speech.

Representativeness: Although lectures have not actually been recorded at a conference or lecture, they are similar in structure (i.e., introduction, methodology, results, discussion, and conclusion) and style (i.e., use slides and/or a whiteboard) to typical presentations given in these environments.

Content Specificity: Lectures concern either research conducted by the speaker or an introduction to a fundamental concept/theory in the speaker's field. This can be seen by the following examples of presentations recorded to date: *Velocity Distribution of Complex Fluids in a Microchannel*; *Soil liquefaction: Its effects and mitigation*; and *Does Mineral Geochemistry Have A Big Impact on Transport Behaviour in Rock Engineering Fields?*

Length Appropriacy: Although roughly 10-minute lectures/presentations are not representative of the typical length of a lecture or conference presentation, it is hoped they are long enough to provide extended listening practice, without overburdening and demotivating students.

Language Appropriacy: Although speakers are not asked to grade their language, and thus lexical and grammatical content may challenge learners of intermediate proficiency, subtitles and transcripts are provided for each lecture to aid comprehension. Furthermore, the provision of translations and/or glossaries is currently being explored.

Issues Faced

Although there have been numerous challenges along the way including identifying and becoming proficient at using the hardware and software tools necessary to create, edit, and distribute the lectures, the major issue faced to date has been recruiting speakers. Even though the Learned Lecture Series has generally received positive comments from both the faculty and graduate students who have recorded lectures, and those who have used the site for listening practice, the number of people that have actually contributed to the project is small. Thus far, speakers have informally reported that the experience is both interesting and educational; it is hoped that more graduate and faculty take the opportunity to present in this low-stakes environment and make a positive contribution to both their presentation ability and other students' listening proficiency.

Conclusion

While the Learned Lecture Series is currently in the early stages of development, we would like to have a database of 15 to 20 lectures by the end of the 2015 calendar year. We are currently looking for speakers, and would be grateful if the readers of this paper could kindly spread the word to anyone they think might be interested in participating in this project.

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