
Poster Presentation

Profile of English Used by Materials Scientists at NAIST

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Introduction

Traditionally, results from needs analyses (NAs) are used to set language program goals and guide curriculum development, and are generally not reported back to participants directly, but in the form of a program of instruction. The aims of this poster were to: 1) make the results of an NA accessible to the participants, and in so doing 2) help them gain a better understanding of how English is used within their own field.

Method

The NA on which this poster was based was intended to identify the types of tasks performed in English by the faculty and students working in the field of materials science at the Nara Institute of Science and Technology (NAIST). The data comes from the question “What kinds of tasks do you do in English?” posed in the preliminary stage of the needs analysis. Responses were collected in individual, structured interviews with faculty members and students. Because of the limited space on the poster, only five participants’ responses were included (two faculty members and three students). The sample presented was representative of the population, with two professors representing domain experts, and one student from the second year of the masters’ course and two students from the doctoral course representing post-experience learners.

Results and Discussion

Responses to Q. 1 are shown in Figures 1 and 2. The results include a summary description of the tasks reported (e.g. discussing research with other scientists) and comments from the participant for each task. The comments are included because they convey relevant information about the self-reported tasks. Figure 1 displays results from faculty; figure 2, those from students. Results are categorized into two macro-skills groups: reading and writing, and speaking and listening.

Reading research articles is mentioned by all participants in both groups; presenting research in English also appears in responses from four of the five participants, as does reading and writing emails. This suggests that these primary tasks could be the core of an ESP approach. Within the speaking and listening skills section, it is interesting to note that social chat in English features as prominently in the two participant groups' needs as discussing research does, indicating that a teaching approach which strictly adheres to an ESP paradigm may need to be extended to include the more general need for engaging in social conversation.

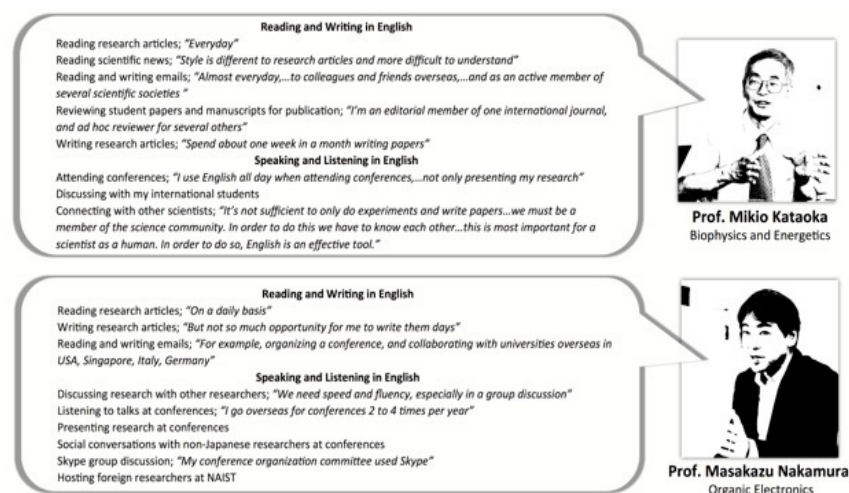


Figure 1. Tasks performed in English, along with comments, from faculty at NAIST

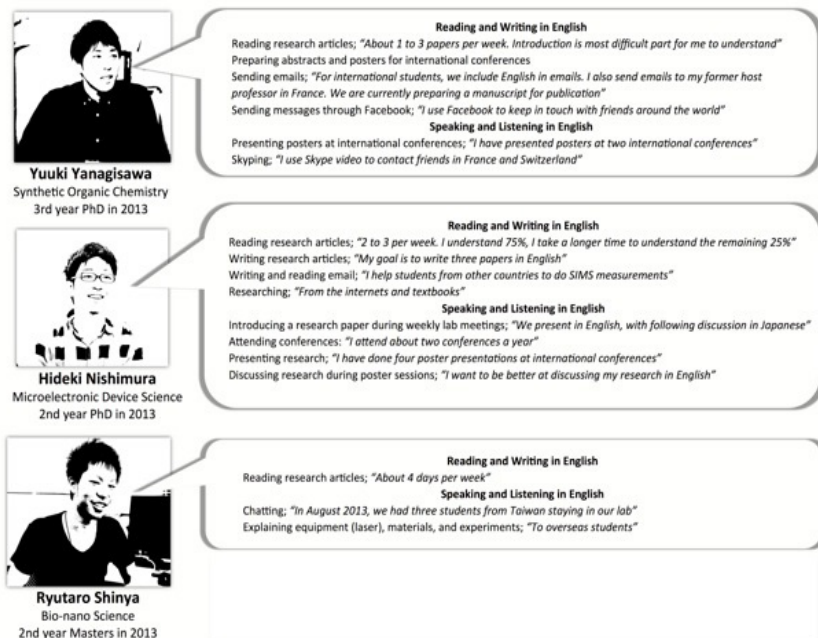


Figure 2. Tasks performed in English, along with comments, from students at NAIST

Future work

Results from these first-stage structured interviews will be used to generate questionnaire items, which after piloting can be administered to the entire faculty and student population. For comparison with materials scientists working in industry, the interviews and questionnaires could be extended to include NAIST graduates and their employers. The following is a list of research questions, which frame this project:

1. Are there significant differences in the kinds of tasks performed in English by masters' course and doctoral course students?
2. Are there significant differences in the kinds of tasks performed in English by domain experts in industry and domain experts in academia?
3. Are there significant differences between pre-experience learners' perceptions of the kinds of tasks they will need to undertake in English, and the needs reported by post-experience learners?

4. How do the kinds of tasks done in English by materials scientists compare with scientists in other disciplines?
5. How do the kinds of tasks done in English by materials scientists in Japan compare with the kinds of tasks done in English by materials scientists in both industry and academia in other countries, including native-English speaking countries?

Author Bio

Leigh McDowell has an undergraduate degree in applied science from the Royal Melbourne Institute of Technology, and a master's degree of science in education from Temple University. He has been teaching English in Japan since 1999. Currently, he teaches graduate students at the Nara Institute of Science and Technology, and is interested in English for specific purposes, especially English as it is used in the international scientific community. He is a regular runner, and occasional bread-maker. leigh-mcdowell@ms.naist.jp

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