Teaching Technical Terminology and Practical English Skills using the SNOWBALLS® e-Learning Platform

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About SNOWBALLS®

SNOWBALLS®, which stands for "Self Navigation Web Based Literacy Learning System", is primarily aimed at teaching third-year undergraduate students basic technical English vocabulary. Since there are many students, and their levels and specific needs vary greatly, offering educational materials through e-learning is efficient for both teaching staff and students.

To increase student motivation, SNOWBALLS is set up as a game where points can be earned through quizzes or by answering questions of other students in the forum. Students can spend these points in a "shop" to buy clothes or new hairstyles for their avatars.

English Language Education for Internationalization

To push internationalization, the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) launched the "Global 30 project" in the middle of 2009. As one of the programs within "Global 30", the school of Engineering at the University of Tokyo is planning to create a "bilingual campus", where Japanese and foreign students can encounter and educate each other by communicating in both Japanese and English.

Students at the University of Tokyo are generally good at English grammar, reading and writing, but their technical vocabulary and conversation skills are lagging. This especially becomes an issue now that an increasing number of lectures are taught in English, and students are encouraged to join international conferences and do internships abroad.

The "Special English Lessons" program already takes care of teaching general conversation skills and preparing students for tests needed when going abroad, such as TOEFL®, while the "English for Engineers and Scientists" course teaches writing academic papers and giving technical presentations. However, when listening to engineering lectures in English, or when having to write or present their research in English, students often encounter a hiatus in their vocabulary.

To fill each student's specific vocabulary gap effectively and efficiently, a tool is needed which enables everybody to study technical English or Japanese by self-study, thus minimizing the burden on teaching staff. We therefore started the development of an e-learning system called SNOWBALLS in winter 2009.

English Education Engineering Students Receive at the UT

About the teaching materials

- Materials are developed together with students.
- Japanese materials are developed for international students.
- There are ideas to include adaptations of open course ware.
- The appropriateness of the materials (style, length, difficulty, etc.) is discussed with students and will be evaluated with a test run of 30 Nuclear Engineering students this winter.
- There are ideas to include adaptations of open course ware (OCW) materials as well.

Current topics in SNOWBALLS

- Geometry, Linear algebra, Robotics.
- Lines & angles, Reading formulas, Manufacturing tools, Statistics.
- Graphs & tables, Measuring instruments, Manufacturing tools.
- Geometry, Linear algebra, Robotics.
- Lines & angles, Reading formulas, Manufacturing tools, Statistics.

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Selected Publications
