

---

---

## Practice-Oriented Papers

# Introducing Science Content Through *Science World* Magazines

Dr. Wendy M. Gough

*Bunkyo Gakuin University, Tokyo*

Second year students in an upper-intermediate (CEFR B2) general reading and writing class at a Japanese marine science university were given the option of reading Scholastic *Science World* magazines or graded readers during in-class sustained silent reading time. In book reports and a survey, the students reported that they enjoyed reading about science topics and learning vocabulary associated with their majors in English. This paper discusses introducing content through Mary Glasgow and *Science World* magazines in a general English class.

University English classes in Japan often follow a curriculum that teaches English for general purposes (EGP) rather than focusing on students' interests or English needs. EGP materials tend to teach formulaic language that does not necessarily spark interest in language learning or help students find real-life connections with the language they are being taught (Guo, 2012). Thus, students have difficulty understanding how English is used in real-life contexts or situations in which they might use English in the future. EGP classes though, provide students with a base set of language skills that can lead to studying the language in more specific contexts (Zohrabi, 2015). One method of developing interest in learning English is to bring elements of English for specific purposes (ESP) or content English into the EGP classroom. ESP and content English teach vocabulary, structures, and style that are specific to a certain field, and students can draw on background knowledge learned in their first language to understand content presented in English (Zohrabi, 2015). Using authentic materials can also be motivating for students, and exposure to such authentic materials helps create interest in learning English through reading because they provide exposure to language as it is used in

context (Berado, 2006).

Introducing content English has been shown to spark interest in language learning, but at the same time, issues arise because instructors might not have training in the specific content field (Amiri & Fatemi, 2014). When the author was teaching at a marine science university in Japan, many of her students indicated in end of semester surveys and class discussions that they wanted to learn English related to science and marine topics. The author does not have a background in these fields though. Also, the English curriculum at the university emphasized EGP and the syllabi left little room for introducing content outside of the required textbooks. The reading and writing class syllabi did, however, allow using sustained silent reading (SSR), typically with graded readers from the university library. When the author found the Scholastic Mary Glasgow and *Science World* magazines in a search for science and contemporary topics her students could read, she decided to give the students the option of reading them during SSR. This paper discusses student reactions to the introduction of Scholastic magazines as an option for students to use in SSR time in EGP classes.

## Methods

In the fall 2018 semester, students ( $N = 18$ ) in a high-intermediate (CEFR B2) compulsory reading and writing class at a Japanese marine science and technology university took part in a 20-minute SSR activity at the beginning of each twice weekly 100-minute class. They were given the choice of reading graded readers from the university's library; or Scholastic Mary Glasgow *Club*, *Current*, or *Science World* magazines that the instructor brought to class. *Mary Glasgow* magazines are graded, and *Club* and *Current*, are appropriate for CEFR B2-C1 level (Scholastic, n.d.-a). *Science World* is not graded, but it is designed for secondary level students in the United States (Scholastic, n.d.-b). Thus, while the *Science World* content is authentic, it is not presented in a highly academic manner, and the language level in the magazines is suitable for CEFR B2-C1 level students. The author was given permission from the university to conduct an action research project, and she ordered several subscriptions of the magazines. This way, each student could read a magazine during SSR if they chose to do so.

When they finished reading a book or magazine, the students wrote a book report to summarize and give their opinion about what they read. Then at the end of the semester they took a short survey about their opinions of the SSR time, their reading preferences for SSR, and their opinions about reading the magazines. The survey, which was written in English and Japanese, consisted of five multiple choice questions asking the students' reading preferences, their opinions about the SSR time, and their opinions of the benefits of SSR for developing their English reading, writing, listening, and speaking skills. It also included one open-ended question where the students were asked to comment on the reading time and reading materials. The author translated any Japanese responses to the open-ended questions with the help of a Japanese colleague. In the results below, following the four student samples, the phrase "original response in Japanese" or "original response in English" was added. Then she analyzed the surveys and 95 book reports to get an understanding of student perceptions of SSR and the introduction of science content through *Science World* magazines during SSR in the EGP course.

## **Results and Discussion**

The survey and book reports showed that eight students read mostly or only magazines, seven sometimes read magazines and sometimes read graded readers, three mostly read graded readers, and no students only read books. An analysis of the opinion sections of the book reports and the open-ended survey question showed the majority of the students liked the *Science World* magazines and felt interested in reading content related to their majors. Of the 95 book reports, 49 were written by 11 students on topics from the *Science World* magazines. These reports showed positive attitudes about reading the science content in English. The students explained that reading *Science World* motivated them to learn English because they could learn content vocabulary through reading about topics related to their majors. The students had similar opinions in book reports on science and technology topics in the Scholastic *Club* and *Current* magazines as well.

In relation to the science topics, the students indicated that even though

the *Science World* magazines are not graded, they could easily understand the contents. For example, one student noted in a book report, “I could improve my vocabulary skills by reading science magazine because they are easy to guess meanings” (original response in English). Others indicated that the magazines would be of interest not only to themselves, but also to their friends at the university. For example, students wrote “I think people who are in this college are interested in learning this topic in English. Because we learn about marine creatures in danger in our science classes too,” or “This magazine is interesting for those who like creature. I will recommend it to member of my club” (original response in English) in their book reports. Thus, the students showed an overall positive attitude toward reading the magazines.

In addition, the students mentioned that the story length and layout of the *Science World* magazines, which included pictures, charts, and captions, helped them understand the content of the stories and learn new English vocabulary related to the topics. These student reactions aligned with findings from Berado (2006) about introducing authentic reading materials in English language classes. These materials also help students engage in critical thinking to help them understand the texts and increase their comprehension of new vocabulary (Yasrida, Sutarsyah, & Sukirlan, 2017). By introducing content through *Science World* magazines in the SSR portion of an EGP course at the marine science and technology university, the author was able to help students become interested in language learning because they were able to read content related to their lives and interests. The pictures, captions, and charts in the magazines also helped the students activate prior knowledge while reading, which helped them understand the topics that were presented in the magazines. Connecting English with topics of interest helped the students become engaged in the SSR content. This was indicated by one student who wrote in the open-ended question on the survey, “Reading science magazines was the most interesting part of the class for me” (original response in Japanese).

## Conclusion

While this action research was limited to one class, it showed that introducing a variety of reading resources, including those connected to the students' majors in an EGP course, promoted interest in reading and helped some students learn language related to their majors. The Scholastic magazines provided a nice alternative to graded readers for SSR because the students could read about a variety of topics related to their majors that were not written specifically for language learners. They could also read about topics of interest to university age students in the Scholastic *Club* and *Current* magazines, which helped them learn English as it is used in real-life contexts and feel connections with similar aged people in other parts of the world. While the language and topic presentation in the *Science World* magazines was not academic or suitable for preparing the students to read or write academic science papers, it was authentic and exposed the students to vocabulary and structures that would be useful for discussing scientific topics among their peers or with their content professors. Thus, the author feels giving the students the option of reading Scholastic *Science World* magazines during SSR time in the EGP class was useful for introducing content and creating interest in language learning.

## References

- Amiri, M., & Fatemi, A. H. (2014). The impact of content-based instruction on students' achievement in ESP courses and their language learning orientation. *Theory and Practice in Language Studies*, 4(10), 2157–2167. doi: 10.4304/tpls.4.10.2156-32167
- Berado, S. A. (2006). The use of authentic materials in the teaching of reading. *The Reading Matrix*, 6(2), 60–69.
- Guo, S. C. (2012). Using authentic materials for extensive reading to promote English proficiency. *English Language Teaching*, 5(8), 196–206.
- Scholastic (n.d.-a). *Science World*. <https://scienceworld.scholastic.com/>
- Scholastic (n.d.-b). *Mary Glasgow Language Learning*. Retrieved from <https://maryglasgowplus.com/>
- Yasrida, Y., Sutarsyah, C., & Sukirlan, M. (2017). Using authentic materials in

reading comprehension of students' low and high proficiency levels at Sman 3 Bandar Lampung. *UNILA Journal of English Teaching*, 6(3). <https://www.neliti.com/publications/194581/using-authentic-materials-in-reading-comprehension-of-students-low-and-high-prof>

Zohrabi, T. (2015). Trends in ESP and EGP. *Journal of Language Teaching and Research*, 6(3), 679–684. <https://doi.org/10.17507/jltr.0603.27>

## Author bio

*Dr. Wendy M. Gough is currently an associate professor at Bunkyo Gakuin University in Tokyo, Japan. She previously taught general English courses at Tokai University's campus of Marine Science and Technology. Her research interests include intercultural communication development through authentic experiences in Japan, creating academic writing curriculum, and extensive reading. <gwendy@bgu.ac.jp>*

**Received:** October 20, 2019

**Accepted:** September 9, 2020