

An adaptable model of a biomedical writing and editing course for medical graduates

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Abstract Despite the increasing demand for a systematic graduate course on biomedical writing and editing in countries like Japan, Korea and China, such a course is still at a conceptual stage. We herein describe a course that is based on the Korean experience. The course can serve as an adaptable global model for medical graduates. The core contents of the programme include lectures, presentations, workshops, e-learning, and online feedback. We discuss the conceptual or operational features of these items, assess the potential of the programme and areas for improvement.

Keywords Biomedical writing; graduate students; programme structure; e-learning; feedback.

Introduction

Despite the increasing recognition of the importance of biomedical science communication in developing and developed countries,¹⁻⁴ a systematic programme on biomedical writing and editing for Asian medical graduates is still at a conceptual stage.⁵

Tokyo Medical University is the leading university in the Asia Pacific region that provides personalized biomedical writing and publishing support to its faculty and staff through the Department of International Medical Communications.⁶ The department provides editing services through seminars/courses and its electronic editorial platform. These graduate courses are regularly updated to meet the growing needs of the University and to keep abreast with international standards.

Aside from that, the development of a biomedical writing and editing course in Wonju College of Medicine at Yonsei University in Korea was spurred by two factors. First, more than 20% of the Asian graduate students in the college are non-Koreans, who are highly motivated to write and publish papers in high-ranking journals, despite the lack of exposure to an English academic environment. Second, publication of papers in the Web of Science-indexed journals has become a requirement for PhD candidates. The writing and editing course was designed to maximize time and resources, to achieve mutual benefit and academic growth, and to develop a consistent and reproducible programme through interactive learning and online feedback. The design aimed to achieve close coordination of the course level and direction, considering the multicultural background and the need to focus on holistic writing and editing education with expected practical outcomes.

The biomedical writing and editing graduate course, described herein, was launched in 2004 to address the needs of the Asian academic community. Its success over

the past decade suggests that it may be tailored for other non-Anglophone regions.

Course structure

The course covers a 16-week period which involves lectures, presentations, workshops, e-learning, and online feedback. The contents include autobiography composition and basic writing (eg correct use of words, phrases, clauses), and science writing. The latter includes title and abstract structuring, designing methodologies, formulating results and discussion, searching and formatting references, editing tables and graphical material, and composing rebuttal letters.

Course materials

We build up our educational resources using English articles and other items written or published by own faculty and staff. This is in line with current copyright regulations, and it allows long-term intramural usage of the materials. These and all other educational tools are annually revised following student feedback or faculty assessment.

We classified references as either static (well known and highly cited references) or dynamic (new and narrow specialized references). Our students are taught how to appraise these references in terms of language and content, either as an assigned reading or practical work during workshops or lectures.

Course contents

Core components

Lectures are the main educational tools, which are best delivered by interactive, bilingual and holistic communication. Lectures on biomedical writing and medical communication combine theoretical and practical issues, and exploit a workshop pattern. We take into account that our students have diverse academic and national backgrounds. The use of English by the students often reflects their native language structure.

Presentations are used to achieve a holistic educational approach. Through this activity, we assess our students' skills for writing and delivering presentations. As a result of this activity, we developed undergraduate presentation-centered learning, which proved effective in eliciting interaction between students with diverse academic and national backgrounds.

Workshops, which are usually preceded by a theoretical lecture, are regularly held to upgrade writing skills. Short

individual presentations are encouraged during the workshops. Most presentation materials are taken from authors of our institution.

e-learning: We have developed a regularly updated e-learning system, which allows to optimize the course contents retrieval. This system effectively complements the lectures by providing access to the course materials, particularly for part-time students, absentees, and remote registrants.

Online feedback: our system encourages the use of smart phones and e-mails. This enables rapid individualized feedback, as well as quick correction and guidance for an assigned work.

Evaluation

Evaluation is an element of learning, which can be achieved through a holistic approach, replacing the traditional simple scoring method. We considered assignment performance and presentation activity as the most important parameters for individual evaluation. Final examination is also practised. It can be passed by publishing an article in a designated time, in addition to the regular assignment performance.

Perspectives

Although this biomedical writing and editing course works well in the Korean setting, there is still room for improvement. The language barrier due to the multicultural diversity of students needs to be addressed initially. The language issues can be solved by developing educational methods that address the differential syntax structure of non-English languages, advancing English speaking and writing skills, standardizing and making more flexible the

courses for students from diverse biomedical backgrounds, training faculty on course efficiency and consistency, and paying more attention to ethical biomedical writing.

Conclusion

Our biomedical writing and editing course can serve as a global model for medical graduates. It may be modified to meet specific needs of non-Anglophone countries. Faculty reinforcement is advantageous for the development of specialized course contents. Pursuing an online approach would enhance efficiency further and allow to enroll medical graduates from all over the world.

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