Writers and readers whose native language is not English must often scale many obstacles to understand English-language science journals. English, however, is the lingua franca of science.

When Roy Turkington went to Kunming, China, to work with ecologists, he started out editing a few manuscripts. He and colleague Iain Taylor ended up creating a week-long workshop on writing scientific papers in English.

Structure was the first hurdle. In the introduction, Chinese scientists often stated the research question without placing it into context. Methods were usually well written, although with too much or too little detail. And combined results and discussion sections presented weaker results first, then stronger outcomes, and finally the main point, rather than starting with the main point.

In Chinese grammar, there are no definite or indefinite articles, uppercase characters, or plurals. Capital letters sometimes showed up in the middle of a word! But language differences paled in comparison with cultural obstacles. Working in teams was unfamiliar and to be avoided because it might involve a loss of face. It was difficult to display and edit students’ writing in class. Nevertheless, 20 scientists completed the workshop, and Turkington and Taylor plan a return visit.

Ana Marusic, editor of the English-language Croatian Medical Journal (CMJ), has instituted a comprehensive program in which editors work closely with authors. She noted that science is often more of a problem than language. For that reason, the CMJ editing process includes four levels: study design, manuscript structure or narrative, style, and English language.

Analyzing whether a study is poorly designed or just poorly presented is the first level. Editors also work with authors to make sure that results emerge logically from methods and that the conclusion directly answers the research question. Weaknesses in the study are identified and addressed. Level 2, scrutiny of manuscript structure, focuses on the IMRaD (introduction, methods, results, and discussion) format. Level 3 focuses on adherence to the relevant style and precise communication of technical information, including the correct use of abbreviations, American or British spelling, appropriate language for describing people (for example, people with diabetes versus diabetics), and reference format. Level 4, English language, addresses the obvious issues of grammar and sentence structure but also duplicate publication and plagiarism, which may not carry the same taboo in other cultures that they do in the English-speaking world.

Mauricio Rocha e Silva concluded the session as the readers’ advocate, offering a fascinating perspective on the role of Latin in both English and the Romance languages and how it sometimes causes confusion. For 350 years, western Europe spoke one language: Latin. Since the 14th century, the proportion of Latin-origin words in English has climbed from about 10% to nearly 25%, mostly because of science.

Latin-language-speaking readers are important, says Rocha e Silva, “because there are a lot of us.” Substituting Latin words for Anglo-Saxon words may clarify the meaning for Latin readers, but there is an important caveat: beware of false cognates. Most words translate directly, but there are exceptions. For example, deception means disappointment in Latin languages and luxury refers to lust! Books and Web sites on false cognates can be helpful. Verbs are another trouble spot. Because there is no passive voice in Latin languages, using it causes translation difficulties. As the style manuals suggest, avoid the passive voice.

English has some very good points: fewer verb conjugations, neutral nouns and adjectives (versus masculine and feminine), and only one definite article. As a unique hybrid and simple language, says Rocha e Silva, “English is the perfect universal language, especially for science.”