

Case Studies in ESP Course Development: Medical English for Turkmen and Mexican Medical Specialists

Teaching English for specific purposes (ESP), such as Medical English, is especially impactful due to high student motivation and immediate real-world application. Medical professionals devote their careers to improving the health and lives of others. With English-language skills, medical professionals can further their own professional development by attending international conferences, reading journals, and sharing their own discoveries with peers. In fact, as the majority of medical journals and international conferences utilize English, learning the language allows professionals who are nonnative English speakers to acquire medical terminology and be active in their community (Papa 2013; Chia et al. 1999). The benefits of teaching a Medical English ESP course are far-reaching and positively affect an unknown number of people. For instance, working with doctors and nurses to increase their English level enables them to more accurately interact with, diagnose, and treat their patients.

This article details the history behind the creation and adaptation of a Medical English course for two different student populations, countries, and needs: Turkmen medical specialists and Mexican Navy cadets. Additionally, a description of the curriculum and materials design highlights the topics, texts, materials, activities, and assessments of this ESP course. The article concludes by explaining modifications, student feedback, and future implications. Included are sample activities incorporating the four skills (listening, reading, writing, and speaking), along with grammar and vocabulary; the activities can easily be modified for other English as a second/

foreign language (ESL/EFL) professionals teaching Medical English.

Three authors offer their perspectives on this course: Kendra Staley as curriculum developer and instructor, Carolyn Allen as program manager, and Anna Hamp as materials developer and instructor. While this program was designed for medical practitioners, English teaching professionals can address ESP needs in their own contexts by following best practices of scaffolding activities, adapting materials for the needs of each particular student population, and incorporating feedback into curricular revisions.

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BACKGROUND

This Medical English course began as a secondary project with the English Language (EL) Fellow program in Ashgabat, Turkmenistan, in 2017. EL Fellows often engage in projects that reflect diplomatic partnerships between the U.S. Embassy and local governments. In this case, the Turkmen Ministry of Health recognized that its medical specialists desired to improve their English-language abilities in order to better interact with international patients during the Asian Olympic Games in September 2017 and to continue their own training as medical professionals.

Because of that, EL Fellow Staley developed the course based on the abovementioned student needs. This particular student population consisted of 30 Turkmen medical specialists, such as doctors, nurses, and surgeons, ranging in age from late 20s to 50s. In addition to their own medical practice, these specialists trained others in their fields, often traveling around Turkmenistan to lead professional-development workshops for their peers and attending additional trainings outside the country, such as in Germany, Russia, and Japan, as well as those given by visiting medical specialists to Turkmenistan. The Turkmen specialists' English-language levels ranged from beginner to intermediate, based on the Common European Framework of Reference for Languages descriptors (CEFR A2–B2), and their ESP course was 1.5 hours per week, for an approximate total of 30 hours of classroom instruction. Clearly, when creating and adapting their own courses, ESP materials developers and instructors take the following considerations into account: student needs, age, professional experience, education level, and English-language level, along with class time and length of the course.

After completing a ten-month fellowship in Turkmenistan, Staley returned to the United States to work at the International English Center (IEC) at the University of Colorado (CU) in Boulder. The IEC runs a number of specialized English-language programs, one of which is for the Mexican Navy (Secretaría de Marina [SEMAR]). The SEMAR cadet cohort discussed in this article was one facet of the Military English Language and Leadership Communication Program (MELLCP), a three-year-old partnership between the IEC, the Mexican Armed Forces, and the Mexican Ministry of Public Education (Secretaría de Educación Pública [SEP]). Several stakeholder goals were considered when creating the program. First, SEMAR's overarching goal was to enhance overall communication and collaboration between military and nonmilitary partners in the United States and other English-speaking countries. SEP's aim was to provide support for educational initiatives that will help SEMAR reach its goal of a 100 percent bilingual fighting force by 2025; SEP offered scholarship funding, communicated objectives, and reviewed post-program accountability reporting. Finally, the IEC sought to strengthen its collaboration with SEP by expanding the language-training options offered in the MELLCP.

In June 2018, SEMAR requested a Medical English course for 50 medical and nursing cadets, ranging in age from 18 to 25, to develop the level of medical training and experience from the cadets' first year of university to starting their residencies. Their English-language levels varied from beginner to intermediate (CEFR A1–B2); based on their language levels, the cadets were separated into four sections, with 12 or 13 students in each. The cadets not only wished to develop their medical English proficiency to improve doctor–nurse–patient interactions,

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but they also wanted to expand their everyday language skills in order to function more comprehensively in an English-speaking environment.

SEP requested a four-week program with 25 to 30 hours of classroom instruction per week. As only two of those four weeks fell within a regular IEC session, a fully customized program was developed with an emphasis on communicative competency: Medical English, General English, Grammar, Pronunciation, and Speak Out (task-based fluency development). For the following two weeks, aside from continuing their Medical English course, participants were partly integrated into the center's Intensive English Program, once again focusing on communicative competency: Pronunciation, Listening/Speaking, Speak Out, and an elective class. In addition to classroom instruction, the program included site visits (CU Anschutz Medical Campus), guest lectures (a nurse/midwife from CU's College of Nursing), and field trips (U.S. Air Force Academy), focusing on student interest in medical and military fields.

CURRICULUM

The Medical English curriculum for Turkmen medical specialists was scaffolded, moving from vocabulary-building in areas such as human body parts and body systems, to interacting with mock patients in order to discuss their symptoms and perform examinations. Role plays were incorporated throughout each unit so that students could practice dialoguing with patients about their bodies and illnesses, explaining diagnoses to patients and their families, and suggesting preventive health and lifestyle changes. A number of online resources (BBC Two 2019; Crayola 2019; English Club 2019) were

adapted to suit the needs of both student populations; an example is a health-literacy curriculum for English-language learners (ELLs) at the beginner and intermediate levels created by the Queens Public Library (2019) for adult immigrants in New York. Because the Queens Library materials were designed from the viewpoint of a patient with limited English, significant adaptation was needed to make them appropriate for Medical English professionals. However, these invaluable materials are rich and extensive, enabling students to learn relevant vocabulary and act out authentic role plays for a variety of medical situations, which are essential for both student populations.

Two textbooks were created, a student version and an answer key for instructors, containing audio files, transcripts, jigsaw activities, flash cards, case studies, picture stories, and content notes that provide medical information for ESL/EFL instructors who do not possess medical training. In addition to covering essential medical vocabulary, activities involved listening comprehension—for instance, of conversations between patients and medical professionals and of patients describing their symptoms. Case studies provided practice in reading comprehension, analysis, and problem-solving of medical situations. Additionally, students focused on their writing skills by answering questions on readings and audios. Essential grammar review emphasized communicative language between medical professionals and their patients: *Wh-* questions to elicit information; adjectives used to describe feelings and symptoms; modals of advice to give suggestions, instructions, directions, and prescriptions; hedging language and conditionals to explain diagnosis; and comparatives for demonstrating options. Each unit culminated with role plays of conversations about health-care

issues between patients and their medical providers. Integrating authentic role plays into a Medical English course reinforces medical professionals' communicative competency when interacting with their patients (Alqurashi 2016; Woodward-Kron and Elder 2016). During the creation of this Medical English course for Turkmen medical specialists and the modification of it for Mexican cadets, the focus remained on communicative competency so that these students could transfer their professional and educational knowledge in their native languages into successful interactions with patients and other medical professionals in the English language.

Formative assessments—conducted during the course to monitor learning—were incorporated throughout both versions of this course in the form of role plays applying materials to patient interactions and quizzes demonstrating comprehension of homework. The *summative assessment* of the course, or final exam, varied by student need. The Turkmen medical specialists participated in a patient-and-doctor role play, with their instructor performing as an international visitor to the country attending the Asian Olympic Games and requiring medical care. Likewise, the final exam for Mexican Navy cadets with a beginning English level was to perform a medical-professional-and-patient role play, with their instructor suffering from afflictions related to their specialization, such as cancer, depression, or a broken bone. For students with an intermediate level of English, the final exam consisted of group presentations about their specializations; because their English level was higher, this final exam was more difficult.

MODIFICATIONS

The Medical English curriculum and materials, created for Turkmen medical specialists, were adapted to meet the needs of the Mexican Navy cadets. A number of differences between these two student populations necessitated this revision. First, Turkmen medical specialists had the advantage of already being medical professionals with

work and life experience; in contrast, the Mexican Navy cadets were university students in training to become doctors and nurses, so they had less personal and professional experience. Second, the Mexican Navy cadets' native language, Spanish, aided in their rapid comprehension of Latin-based medical terms; conversely, the Turkmen medical specialists did not have this linguistic benefit, as they are native Turkmen speakers, most of them with a Russian-language educational background. Third, as many EFL teachers can attest, English-language teaching materials outside English-speaking countries can be challenging to obtain and often quite expensive. Thus, the increased availability of and access to Medical English materials in the United States provided more opportunities for curricular development and enhancement.

After the Medical English course was completed in Turkmenistan, three difficult yet important topics were identified as missing from the curriculum: domestic violence, mental health, and sexually transmitted diseases (STDs). Addressing culturally sensitive topics with ELLs is challenging, but because Medical English students deal with life-threatening issues with their patients, it is essential for instructors and students alike to overcome their embarrassment and hesitancy around these issues. The *Medical Providers' Guide to Managing the Care of Domestic Violence Patients within a Cultural Context* (Bloomberg 2004) provides many useful materials, such as a guide to creating an escape plan for patients and possibly their children to leave an abusive environment. *English in Medicine: A Course in Communication Skills* (Glendinning and Holmström 2005) and *Professional English in Use: Medicine* (Glendinning and Howard 2007) are textbooks designed for intermediate-level ELLs that contain excellent activities for discussing patients' mental health, complete with authentic questions and examples of how to give mental-health referrals.

Activities addressing these issues were developed and implemented in the revised course for Mexican Navy cadets. As expected, the students who had more medical training

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and experience assisting in hospitals had more knowledge of the prevalence of domestic violence, which is a problem that occurs in every country. They openly discussed strategies they had learned when helping victims of domestic violence and compared ways in which they had been trained to broach mental-health concerns with their patients. Additionally, students nearing the end of their university training and beginning their residencies freely talked about the importance of addressing with patients STDs, testing, and the use of contraceptives. Although incorporating these sensitive issues into an ESP classroom can bring up feelings of discomfort for all involved, ESL/EFL instructors must address the real-world, life-threatening issues that their students face. Not doing so is a disservice not only to them as medical professionals, but also to their patients; essentially, ESP educators have a duty to linguistically prepare their students to deal with life and its complexities.

While both student populations contained a range of English-language levels, from beginner to intermediate, there were a large number of Mexican Navy cadets at the CEFR B2 upper-intermediate level. This required additional changes at the IEC to expand and further develop the materials for these students. Due to this linguistic need, Hamp, a Medical English instructor and materials developer who is also a trained doula and midwife assistant, created additional activities.

One of the changes implemented by Hamp was the final exam for the upper-intermediate cadets. While role plays were appropriate for beginner students, upper-intermediate students required an exam better suited to their linguistic abilities; as a result, they prepared individual research-based presentations. These presentations highlighted the causes, symptoms, prevention, risk factors, diagnosis, treatment, and complications of a specific ailment chosen and researched by each student.

Another modification pertained to the vocabulary taught in the Medical English class. Intermediate students generally found the Latin-based medical vocabulary easily accessible but struggled with the pronunciation of these words, defaulting to their Spanish cognates. Therefore, their pronunciation class incorporated extra role plays using the transcripts in the Medical English curriculum. The vocabulary that these students found especially useful were simple, non-Latin-based words such as *chin*, *shin*, *bruise*, *brace*, and *cast*.

A final addition to the course included authentic reading and listening sources that explore medical ethics. Examples include a video and a jigsaw-reading activity about the organization Doctors Without Borders (Encyclopedia.com 2007; Doctors Without Borders 2016) that examine the history and current state of international medical aid (see Appendix). Another listening and

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discussion activity, based on the life of Henrietta Lacks (Skloot 2010; Henrietta Lacks Foundation 2019), addresses the ethics of using someone's cells without the person's permission to advance scientific and medical research (see Appendix). Aside from being level appropriate (CEFR B2), these activities prompted students to think critically about complex health issues in different contexts. Certainly, students' native-language, English-language, educational, and professional levels dictate how ESP materials developers and instructors create and modify materials.

CONCLUSION

It is our hope that the activities and materials detailed in this article are useful for other ESL/EFL professionals teaching and developing not only Medical English but also other ESP courses. Future implications for this ESP course are continuing to adapt materials based on particular student needs and modifying assessments. We would like to incorporate a midterm exam consisting of group presentations based on student specializations and to modify the final exam to become cumulative: listening, reading, writing, grammar, vocabulary, and role plays with the instructor as patient.

The feedback from both student populations was overwhelmingly positive. The Turkmen medical specialists felt more confident when speaking in English with international patients and with visiting specialists conducting medical trainings in Turkmenistan. Moreover, an improvement in their English-language abilities has resulted in access to additional professional-development opportunities and scholarships outside their country. A number of them have participated in further

medical-training courses conducted in English in Germany and South Korea. Similarly, the Mexican Navy cadets expressed a higher level of confidence when speaking and listening to medical situations and conversations. Both groups voiced the need and desire for continued Medical English classes and more time devoted to communicating about their field in English.

For us as educators, this is truly the best learning environment: students dedicated and motivated to learn as much as they can as quickly as possible, in order to better help others. Unlike many ELLs, medical specialists and those in training apply directly what they have learned with their patients. In other words, there is an immediate need for and application of what they learn in the English classroom to real life, a similarity shared with ESP students in other fields.

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Anna Hamp, who holds an MA in TEFL and linguistics, has taught ESL/EFL for 25 years at several Intensive English Programs in California and Colorado, as well as in Hungary and Israel. She has also worked as a proofreader, translator, and interpreter.

Kendra Staley earned her MATESOL from the University of Washington, Seattle. Since 2005, she has taught ESL/EFL in the United States, Guatemala, China, Indonesia, Colombia, and Turkmenistan. Kendra has twice been an English Language Fellow and an English Language Specialist.

Carolyn Allen holds an MATESOL from Hunter College at the City University of New York. Prior to her second career in English-language instruction and administration, Carolyn worked in advertising sales and marketing, including positions at NBC and ABC television.

APPENDIX

Medical Ethics Reading and Listening Sources

A. *Doctors Without Borders* Activities

1. Watch the ten-minute video found at <https://www.youtube.com/watch?v=Uoq2EG3BpS4>
 - What did you learn about the organization from the video?
 - Would you like to be involved with Doctors Without Borders in the future? Why or why not?
2. Read the text about the history of Doctors Without Borders at <http://www.encyclopedia.com/social-sciences-and-law/political-science-and-government/international-organizations/doctors>

Then write a paragraph summarizing what you learned.

B. *Life of Henrietta Lacks* Activities

Introduction from Skloot (2010):

In 1951, an African-American woman named Henrietta Lacks was diagnosed with terminal cervical cancer. She was treated at Johns Hopkins University, where a doctor named George Gey snipped cells from her cervix without telling her. Gey discovered that Lacks' cells could not only be kept alive, but would also grow indefinitely. For the past 60 years Lacks' cells have been cultured and used in experiments ranging from determining the long-term effects of radiation to testing the live polio vaccine. Her cells were commercialized and have generated millions of dollars in profit for the medical researchers who patented her tissue. Lacks' family, however, didn't know the cell cultures existed until more than 20 years after her death. Medical writer Rebecca Skloot examines the legacy of Lacks' contribution to science—and effect that has had on her family—in her new book, *The Immortal Life of Henrietta Lacks*.

Instructions: Listen to the 37-minute interview of the author of *The Immortal Life of Henrietta Lacks* found at <https://www.npr.org/2010/02/02/123232331/henrietta-lacks-a-donors-immortal-legacy>

Then answer the following questions.

1. How have Henrietta Lacks' cells been used in medical research?
2. How is it possible to use cancer cells in medical research?
3. Henrietta was a poor African-American woman in 1951. How did her race affect the health care she received?
4. When did her family find out (learn) that her cells were alive and being used for medical research?
5. Why did Henrietta's daughter Deborah want so much to learn about her mother's life and the medical research done on her mother's cells?
6. Henrietta's family has never received any money from all of the medical research done on her cells. Why?
7. What is Rebecca Skloot's personal connection to people or their bodies being used for medical research?
8. Henrietta's death and the continued use of her cells in medical research raise many ethical questions for the scientific community. How did Skloot address the fact that many of Henrietta's descendants still can't pay for health care and don't have the money to receive an education?

Visit <http://henrietalacksfoundation.org> to learn more about the Henrietta Lacks Foundation.