



DEVELOPING MEDICAL STUDENTS' TERMINOLOGICAL COMPETENCE THROUGH CORPUS TOOLS: AN ESP CLASSROOM MODEL

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Abstract

This methodological paper outlines a practical model for integrating AntConc and Sketch Engine into medical English classes. It presents a sample sequence for exploring terminology, collocations, and genre-sensitive usage, together with an assessment blueprint. The proposed activities aim to foster independent vocabulary investigation while maintaining clinical accuracy. The paper offers a replicable lesson design; it does not claim experimental results.

Keywords: corpus linguistics; medical terminology; English for Specific Purposes; data-driven learning; concordance; medical education.

Introduction

Medical English students need to recognize technical terms and deploy them in professionally appropriate combinations. In traditional vocabulary exercises, terms are often isolated from the discourse in which they appear. Corpus tools can help learners observe patterns, test hypotheses, and transfer discoveries into speaking and writing. The challenge is to convert rich language data into manageable learning tasks.



Pedagogical rationale

Data-driven learning treats students as investigators of recurring language patterns (Johns, 1991). The approach aligns with ESP because learners can inspect texts from relevant clinical genres. AntConc provides concordance, word-list, and keyword functions; Sketch Engine offers corpus-query and word-sketch features, depending on access and corpus availability. Teachers should demonstrate tool interfaces and explicitly teach learners to distinguish a common expression from a medically sound recommendation.

Proposed instructional setting

The model targets first-year medical or dentistry students studying English for professional purposes at approximately B1–B2 level. It can be adapted for higher-level cohorts by using longer texts and independent searches. One unit may span two 80-minute sessions. The teacher prepares a small, licensed corpus of educational clinical passages and patient-facing explanations. Students work in pairs to reduce technical barriers and discuss competing interpretations.

Sample lesson: terminology in clinical descriptions

The teacher begins with a short case about oral pain and inflammation and elicits familiar terminology. Students then search a prepared corpus for “pain,” “swelling,” “lesion,” and “inflammation.” They record common modifiers, verbs, and neighboring nouns, noting that the terms differ in meaning and register. Using concordance lines, learners investigate phrases such as “localized swelling,” “persistent pain,” and “signs of inflammation.” These are illustrative teaching targets rather than reported corpus findings. Students subsequently rewrite a case note and produce a patient-friendly explanation, checking both lexical accuracy and comprehensibility.



Four-stage classroom procedure

Stage 1—orientation: introduce the clinical topic, search interface, and a focused inquiry question. Stage 2—discovery: provide a limited number of concordance lines and ask learners to identify patterns with evidence. Stage 3—verification: compare observations with an authoritative medical dictionary and teacher feedback; explicitly discuss exceptions and genre differences. Stage 4—transfer: assign a role-play, patient summary, or short clinical paragraph that requires the target expressions in context.

Sample learner worksheet

Task A: In five concordance lines containing “diagnosis,” underline verbs and prepositions appearing near the term. Task B: Compare the patterns “diagnosis of” and “diagnosed with”; explain how their grammatical roles differ. Task C: Find two examples of language suitable for a clinical report and rewrite one for a patient leaflet. Task D: Compose a 70–90-word clinical summary using four verified terms and two natural collocations. Task E: Record the corpus source and explain one uncertainty in your findings.

Assessment design

A feasible study could use a pretest, a posttest, and a delayed posttest, alongside learner reflections and a task-based writing sample. Measures should include meaning recognition, appropriate collocation selection, and productive accuracy. Two trained raters can evaluate writing with shared criteria; agreement should be checked before comparing groups. If a comparison class is used, its instructional time, target vocabulary, and assessment conditions should be comparable. No participant data or outcomes are asserted in this paper.



Implementation constraints

Some tools require licenses, connectivity, or technical training. Teachers can use screenshots or exported concordance sets when students lack computer access. In mixed-proficiency classes, preselected lines prevent cognitive overload; advanced learners can independently investigate lexical bundles and compare subcorpora. All clinical statements should be checked for accuracy, and teaching corpora should exclude identifying patient information.

Conclusion

A structured corpus-tool lesson can move students from noticing authentic patterns to producing more precise professional language. The proposed model combines accessible searches, expert verification, genre comparison, and performance assessment. Its value should be evaluated empirically before claims of effectiveness are made.

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