Title:
Editing Wikipedia for Medical School Credit – Analysis of data from three cycles of an elective for fourth-year students

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Introduction:
University students have been editing Wikipedia articles as part of academic courses for years, but our efforts represent the first development of a medical school elective that revolves entirely around editing Wikipedia. Beginning in Fall 2013, we offered a month-long immersion elective rotation for fourth-year medical students to receive academic credit for editing health-related Wikipedia content. Faculty and medical librarians partnered with the WikiProject Medicine initiative, the Wikipedia Education Program, and experienced Wikipedians to design, deliver and evaluate this elective.

Research Questions:
We sought to answer three key questions: 1) the number of readers of the articles edited by our students, 2) the impact of the student edits on Wikipedia's content, and 3) the impact of the elective on student participants.

Methods:
During each rotation, we obtained traffic statistics for each article via Wikipedia's publically available mechanisms. Across 3 cycles, the 28 enrolled students received both pre- and post-rotation survey questions consisting of open-ended items. Faculty members and medical librarians conducted mid-rotation 1:1 interviews and single, end-rotation focus groups. All interviews and focus groups were transcribed and coded for

emerging themes. We calculated article quality metrics, such as number of bytes added/deleted, and number and quality of citations added. We used a private content quality firm's proprietary reporting tool to calculate changes in article grammar, style, readability and translatability. Physician volunteers scored both pre- and post-editing versions of the Wikipedia pages to determine any changes in overall quality.

Results:
During only the months that students were actively editing, the 28 articles were collectively viewed 974,065 times. Students contributed 369,994 bytes and removed 82,559 bytes, for net changes of 287,385 (average of 10,264/student). The total number of edits made was 1,084 (average 39/student). Students added an average of 12 citations/article (range 1 – 64 new citations). While there was an increase in readability of most articles, students discovered a tension between readability and translatability vs. comprehensiveness of their selected articles. Highlights of student feedback include: 1) all subjectively felt they improved their selected articles; 2) all became comfortable with contributing to open-access information repositories like Wikipedia; 3) all enjoyed the opportunity to "give back specifically" to Wikipedia; and 4) the experience nearly universally broadened their sense of physician scope of responsibilities in the socially networked information era in which we live.

Discussion:
These results confirm the viability and large social impact of medical students receiving academic credit for contributing to Wikipedia and other open-access repositories of medical knowledge. We encourage other health professional schools to replicate and improve on our initiative.

Target Audience:

Medical Student Educators, Physicians, Medical Students, Health Care Professionals, Education Researchers, Medical Librarians.