**example 14: fellow**

**EDUCATION RESEARCH AND SCHOLARSHIP WORKSHEET**

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| **Brief description of project** | * Title: A comparison of two instructional methods in XYZ specialty for third year medical students
* Description: To compare an unfolding long case versus case vignettes in XYZ on knowledge retention among third year medical students completing their XYZ Clerkship
* Initiated in Year X and completed in Year Y
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| **Your role in development and years involved in this role** | Co-mentor and co-investigator for the study. Developed the study design, curricular materials and evaluation instruments with mentee and PI, Dr. XYZ, and co-investigator, Dr. XYZ |
| **Type of Project** | Learner and curriculum assessment  |
| **Number of people affected****(Quantity)** | 127 third year medical students |
| **Goals** | To improve knowledge retention of XYZ topics among third year medical students using multiple contrasting cases versus a single long case. |
| **Preparation** | **Needs assessment:** There will never be enough trained physicians to care for the growing number of XYZ adults in this country. While formal training in XYZ is a LCME requirement, the most effective ways to facilitate enduring learning remain unclear. Core clerkship curricula from national organizations such as XYZ and XYZ, national competencies from the XYZ, and a review of our current curriculum provided needs assessment data for our program.**Project design:** Knowledge can be very context specific and students who learn about a topic in one clinical situation may not be able to transfer such learning to subsequent clinical situations. Experts are able to transfer knowledge because they understand ideas within a conceptual framework and are able to notice patterns and distinguishing features in subsequent presentations. We selected a case-based learning strategy as it involves active learning and learner relevant clinical problems and vignettes. However, a single case may not facilitate knowledge transfer. Multiple, contrasting cases can highlight when, where and how to use new knowledge and facilitate recognition of new, relevant and irrelevant features of a syndrome. Thus we developed two instructional methods for each topic: the first, an unfolding case and the second, three case vignettes. Since all third year students rotate in the clerkship, we alternated teaching method by month throughout the academic year. A 60-item MCQ test was developed by the investigators and administered pre-, -post and 1 year post curriculum to assess knowledge gained and retained.  |
| **Methods** | * All third year medical students rotating on the XYZ Clerkship were invited to participate
* The unfolding long case and case vignettes were developed by the investigators and were aligned with the learning objectives. Instructional method (long case versus case vignettes) was alternated by month and was taught by one investigator throughout the academic year. Consistency was also ensured by the use of an in-depth Teachers Manual which included all answers, a bibliography, citations and algorithms Three, hour-long sessions were conducted during the four week XYZ rotation.
* A 60-item MCQ test was developed by the investigators using the NBME Principles of Question Development. A panel of content experts reviewed the entire test for alignment with learning objectives and level of difficulty. The test was administered on the first day of the rotation (pre-curriculum), the fourth week of the rotation (post-curriculum), and one year following the curriculum (one year post-follow up).
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| **Evaluation** | **MCQ:** percentage of items correct on the MCQ test compared pre-, post- and one year post curriculum**Evaluation of the curriculum**: A survey to assess overall satisfaction, realism of the cases and relevance of the curriculum to clinical work was developed by the investigators and administered following the curriculum. **Results:*** 127 third year students participated in the curriculum and 65% completed the one year follow up MCQ test
* Significant differences were noted between pre and post curriculum test scores for both instructional methods. This significance remained at one year post curriculum. Comparing the two instructional methods, no significant differences were found between pre-, post- and one year post curriculum test scores.
* Most students found the curriculum to be relevant and useful. 78% of the case vignette participants believed it was an effective teaching method as opposed to 66% of unfolding case participants. 68% of the case vignette participants noted that the format allowed them to apply concepts more easily to different scenarios versus 42% of the unfolding long case group.
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| **Evidence of Quality** | Blue Ribbon Winner, Institute for Medical Education’s Annual Education Research Day, Mount Sinai School of Medicine, year X |
| **Evidence of Dissemination** | **Abstracts:*** Name, Name and Name. A comparison of two instructional methods in XYZ for medical students. Institute for Medical Education’s Annual Education Research Day, Mount Sinai School of Medicine, year X
* Name, Name and Name. A comparison of two instructional methods in XYZ for medical students. National Scientific Abstract Poster Session, Annual Meeting of XYZ, location, month, year.

 **Articles:** Name, Name and Name. An unfolding long case or case vignettes: A comparison of 2 instructional methods in XYZ for medical students. Submitted to XYZ journal. |