

IAMSE 2018 Poster

Purpose

Curriculum planning challenges for medical educators include limited time, limited resources, and standardized curricular templates. We describe a low-cost comprehensive repository of medical curricular materials that are student-written and faculty-designed, and which can be customized to suit unique institutional curriculum needs.

Inspired by the LEGO system of play—which allows people to build diverse toys and tools from a restricted set of interlocking plastic bricks—ScholarRx has developed a comprehensive, componentized curricular system which allow schools to rapidly assemble and deliver a low-cost, high-quality curriculum customized to their individual needs. These curriculum “bricks” address multiple challenges, such as filling in course gaps, creating lectures, and reducing educators’ work burden.

Our aim is to create, implement, and validate curriculum bricks through a Kirkpatrick evaluation model at several US medical schools.

Methods

The core of our medical curriculum repository includes narrative “bricks” on health science education topics, each requiring approximately 20 minutes of learner time and integrating foundational and clinical sciences. Each brick features conversational narrative text, images, mnemonics, active-learning questions, and self-assessment items. We have designed and written materials for the Hematology, Cardiovascular, Respiratory, and Renal organ systems.

Multiple pilots using the hematology curriculum bricks were implemented, including at the University of Minnesota – Twin Cities School of Medicine, Rutgers University – Robert Wood Johnson School of Medicine, and University of Louisville School of Medicine. Bricks in PDF format were provided to first-year medical students as supplementary resources during their hematology coursework.

We used a Kirkpatrick program evaluation model to measure student participation and participation using our curricular bricks. This evaluation uses end-of-course surveys of students and faculty, student focus groups, and faculty interviews at multiple US medical schools.

Results

Preliminary data from three medical schools show an overwhelmingly positive response to our curriculum materials.

Students at the University of Minnesota – Twin Cities completed an end-of-course survey regarding their use of the ScholarRx bricks. 69% (81 of 118) of respondents agreed or strongly agreed that the curriculum bricks were useful in learning the material. 27% of the respondents had a neutral opinion (Figure 1). 76% of (84 of 110) respondents would recommend that ScholarRx bricks be used in other courses (Figure 2).

Similar responses were reflected in student survey results at Rutgers – Robert Wood Johnson. 83% (134 of 162) of respondents agreed or strongly agreed that the curriculum bricks were helpful as a supplemental resource (Figure 3). 80% of (129 of 162) respondents would recommend ScholarRx bricks to other students (Figure 4).

Feedback from student focus groups and faculty interviews at the University of Louisville described the bricks as friendly, engaging, and high quality with good curricular coverage.

Fig. 1: UMN - I found the ScholarRx Hematology bricks useful in learning the material (n=118).

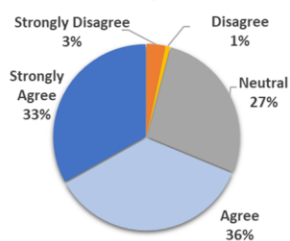


Fig. 2: UMN - I would recommend the ScholarRx bricks to be used in other courses (n=110).

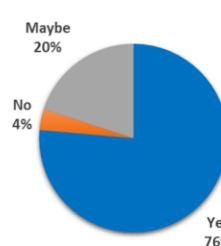


Fig. 3: RWJ - The ScholarRx bricks were helpful as a supplemental resource (n=162).

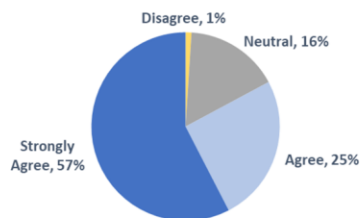
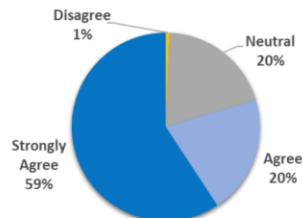


Fig. 4: RWJ - I would recommend this resource to other students (n=162).



Conclusion

ScholarRx curriculum bricks were largely well-received by students and faculty at multiple medical schools. Strengths include ease of use, high quality, and good curricular coverage. Additional curriculum pilots will study the use of bricks as primary curricular experiences and as components of problem/team-based and self-directed learning experiences. Future studies will also evaluate for knowledge and competency-based outcomes.

References & Acknowledgments

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