Title: Hyperlinked case presentation to promote self-directed learning

Author: Milagros Rabe

Context and Setting: In 1998, our medical school, one of 38 medical schools in the Philippines, changed its curriculum from traditional to a hybrid problem-based learning type. This curriculum allotted a four-hour session twice a week for tutorials, one to two hours per day for lectures, three hours twice a week for laboratory work and four hours thrice a week for independent study time. Independent study time is not structured and is a protected study time for students to learn individually.

Why was the idea necessary? Students pursue separate learning issues emerging from tutorials and report to each other about them, limiting the opportunity for individual pursuit of knowledge over a range of learning issues. Faculty hypothesized that individual casework was necessary in order to identify knowledge deficits and increase experience in self-directed learning.

What was done? Electronic slide presentations on three cases (hyperbilirubinemia in the newborn, dengue hemorrhagic fever and tuberculosis in children) were developed by three faculty members from the Department of Pediatrics using PowerPoint™ format for voluntary use by students during their independent study time for the duration of the 6-week module. Each case had specific learning objectives and had an average of 50 slides with hyperlinks to files that provided additional resource material such as journal articles, graphic aids, and synopsis of text resources. At the end of each case, a self-assessment quiz was included to give students feedback on their understanding of the case material. Students’ opinion regarding their learning based on the use of these cases was obtained using self administered questionnaires and a focus group discussion. Participating faculty opinion was obtained using a semi-structured interview.

Evaluation of results and impact: Eighty-eight percent of the students reported that cases improved their understanding of course material and helped them better select the reading materials to address their learning needs. Eighty-nine per cent of them agreed that cases adequately addressed the learning objectives. Faculty indicated that cases decreased the need for as many lectures, facilitated the teaching of concepts, gave students more responsibility for their learning and improved use of independent study time. Both faculty and students agreed that the strategy was useful but it could have been more engaging if there had been more electronic animations and if the imbedded self-evaluation were conducted by computer rather than on paper. The results indicate that even in a resource-constrained environment, use of simple software like PowerPoint™ can promote identification and pursuit of individual learning issues and help better develop self-directed learning skills.

Correspondence:
Milagros Rabe, M.D., M.S., Ph.D.
University of the East/Ramon Magsaysay Memorial Medical Center, Philippines

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