

Using Aquifer to Create Customized Online Courses

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Background

Case Use

Final Exam Performance

Goals for 3 different courses

1. FM CLERKSHIP: Provide guidance for at-risk students to pass NBME FM Subject Exam
2. GERIATRICS ELECTIVE: Augment rotation
3. EXTERNSHIP: Augment weekly seminar

Methods

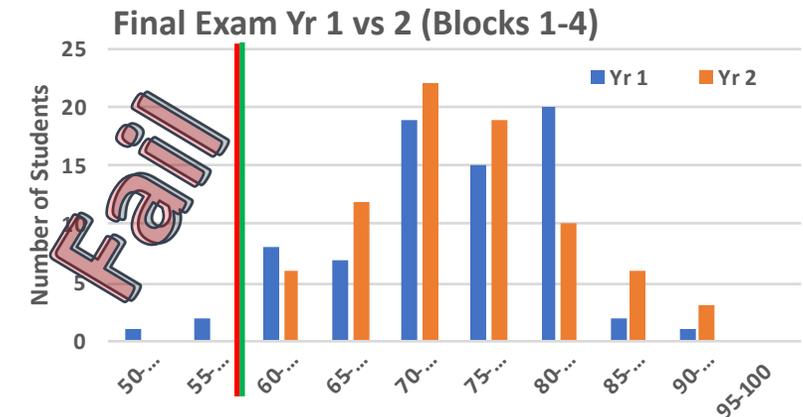
- Aquifer provides both subscription-based and free online virtual patient cases. As of 2018, can now create customized courses, picking cases from all available sets of cases and assign them to single or multiple learners.
- Clerkship (Yr 1 = 2017-18; Yr 2 = 2018-19)
 - Students completed Aquifer FM National Exam at middle (Yr 1) or start (Yr 2) of FM Clerkship
 - Yr 1 = provided report to student about item performance
 - Yr 2 = provided customized course to student based upon Aquifer FM Exam performance
 - All students completed end-of-clerkship NBME FM Subject Exam for grade.
- Geriatrics elective & Externship seminar
 - Informal discussions of course content

Email	First Name	Last Name	Cases Completed	High Value Care 0-6	High Value Care 6-9	High Value Care 9-14
SmithAlice@gmail.com	Alice	Smith	3	✓	✓	✓
LandS@mymsu.nova.edu	Scott	Land	2	✓	✓	✓
DiazV@mymsu.nova.edu	Vanessa	Diaz	0	88%	●	●
BrownTed@okstate.edu	Unknown	Unknown	0	●	●	●

Cases use data: About 50% completion rate

1. FM CLERKSHIP: In Yr 2, 32 of 80 total students over 4 blocks were identified as 'at risk'. They completed an average of 13.5 of 24.6 assigned cases.
2. GERIATRICS ELECTIVE: 2 out of 4 students completed all 4 cases
3. EXTERNSHIP: 2 out of 4 students completed all 3 cases

NBME FM Exam Avg	Yr 1 (N=75)	Yr 2 (N=78)	
Blocks 1-4 (8 / year)	74.37% (SD=7.95)	75.03% (SD=7.36)	(p=0.6)



Satisfaction – Clerkship Exam Study Course



Satisfaction

1. FM CLERKSHIP: Generally positive, except did not replace other resources or save time
2. Geriatrics elective & Externship seminar: +/-

Clerkship NBME FM Subject Exam Performance

- No statistically significant difference in entire class exam performance during first half of Yr 1 vs Yr 2
- 3 failures Yr 1
- 0 failures Yr 2

Lessons Learned

- Feasible to create customized courses for single or multiple students.
- Be careful to build value into customized courses.
- Customized courses may improve exam performance.