Better together: Improving efficiencies and learning opportunities in a multi-pathway PharmD program

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Objective: To "harmonize" key content across multiple pathways to a PharmD

BACKGROUND

Multiple Pathways to a PharmD:

- In-person program with remote (synchronous) option
- Set course schedule
- Course-specific attendance policies
- In-person classes with Zoom option + recorded sessions
- Entry-level learners

- Fully online (asynchronous): North American- and International-Trained PharmD (NTPD and ITPD)
- Pre-recorded lectures
- Flexibility within 1-week modules
- Not in cohorts
- Post-baccalaureate, mid-career learners

METHODS

Harmonized Courses:

- Evidence Based Medicine & Literature Evaluation (EBM), Fall 2022
- Clinical Problem Solving Skills (CPSS), Sp 2023
- Psych/neuro Pharmacotherapy (PT), Sp 2023
- Capstone, Sp 2023

Harmonization Methods (ala carte approach):

- Synchronous Zoom attendance option
- Synchronized schedules
- Combined instances in the learning management system (LMS)
- Access the course recordings rather than pre-recorded lectures
- Group learning activities & assessments were similar/identical

Feedback Collection:

- Mid- and end-of-semester surveys of online students
- Focus groups: How did it go with online learners in same course?
- Instructor and Course Director reactions

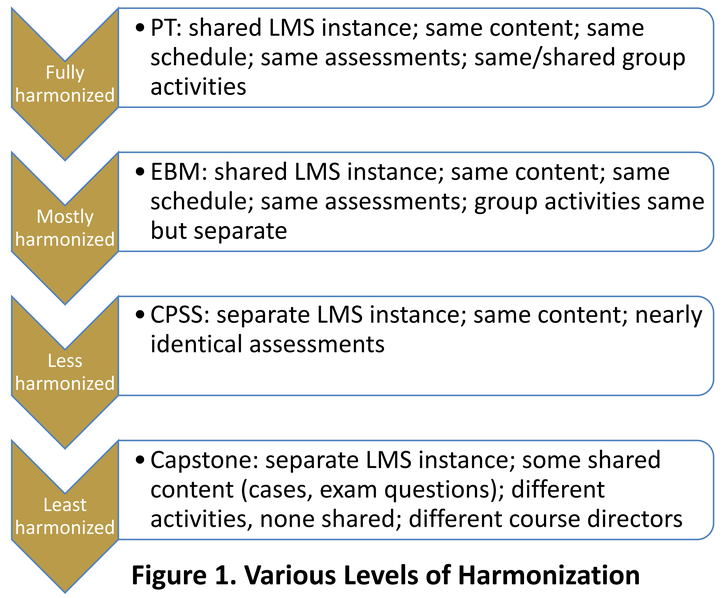

Figure 1. Various Levels of Harmonization

RESULTS

Table 1. Student Feedback

Fully harmonized → Mostly harmonized → Less harmonized → Least harmonized

	PT (n=7)	EMB (n=8)	CPSS (n=10)	Capstone (n=8)
Attended at least 1 class synchronously	57%	75%	80%	100%
Academic performance compared to non-harmonized courses	NA	71% (better) 29% (same)	20% (better) 40% (same) 40% (worse)	25% (better) 37.5% (same) 37.5% (worse)
Prefer to have all courses harmonized	NA	87%	20%	25%

Student Reactions

- Pros: Great platform for generating **in-classroom feel**; questions could be **addressed in real-time** via chat; recordings captured **instructor-student interactions** to help gather more information; inclusion of online learners was **not a distraction** (per focus groups)
- Cons: Not able to ever join synchronously; **felt like an outsider** watching recorded classes; class schedule did not match usual deadlines

Instructor and Course Director Reactions

- Get help from IT and instructional designers to maximize use of innovative technologies
- Listen to students throughout the semester: what is working, what is not working?
- Communication is key

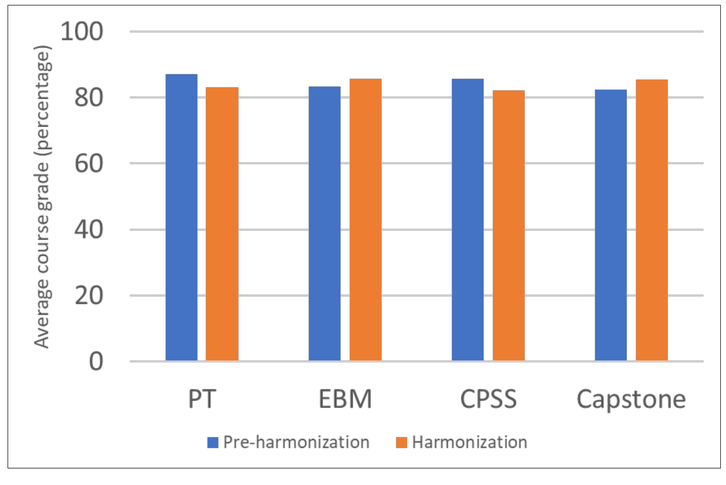

Figure 2. Student Outcomes

CONCLUSIONS AND IMPLICATIONS

- Positive feedback in general
- Online students appreciated opportunity to engage with in-person/remote students
- Provided a richer learning environment
- Still had option to watch recorded lectures on own time
- Learning outcomes during harmonization similar to prior to harmonization
- Can be more efficient for instructors and course directors IF content, assessments, activities, and expectations are the same AND resources are available
- Clear communication is key: between course directors and instructors, and with students
- Not a one-size-fits-all approach

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