

2021 CFE Teaching Showcase:

Teaching As Research: Am I Making a Difference?

Double-dipping: Sharing Pre-class Videos in 2 Degree Programs

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Disclosure

I have no relationships with commercial interest related to the content of my presentation.

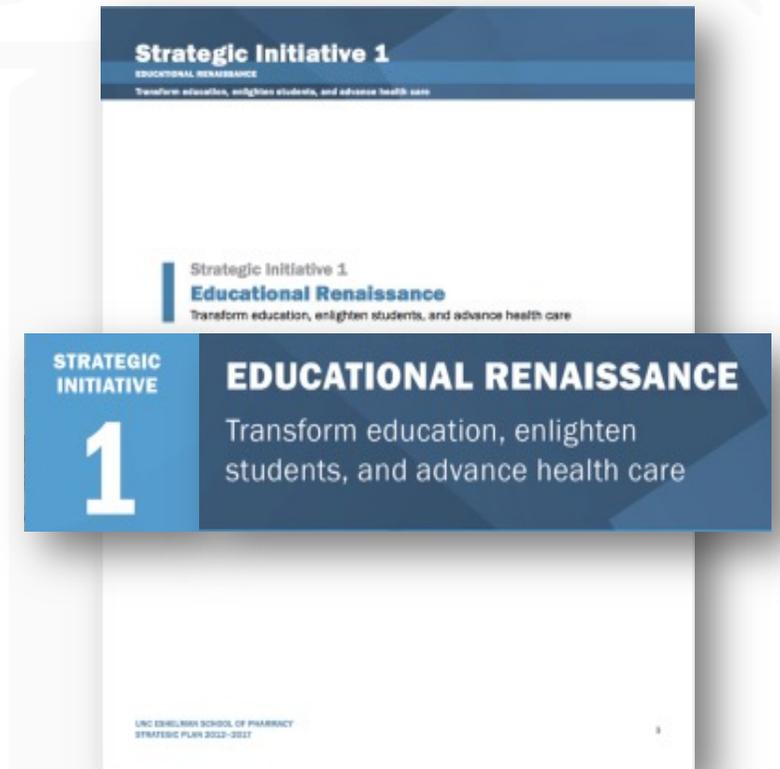
Rationale

UNC Eshelman School of Pharmacy: active pedagogy a key element of transformed Doctor of Pharmacy (PharmD) launched in 2015

1. Pre-class videos from **PharmD-Pharmaceutics** course (*Greene*) utilized in PhD-Advances in Drug Delivery course (*Ainslie, Anselmo, Hingtgen, Jay*).
2. **Evaluate the use** of the PharmD pre-class videos within PhD course

Flipped Classrooms: students learn basic concepts pre-class and use applied, higher order thinking during class (*can enhance student learning, engagement, satisfaction*)

1. **Use within doctoral graduate programs not well understood**
2. **Preparation time: ~6x** longer than traditional course preparation



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Approach

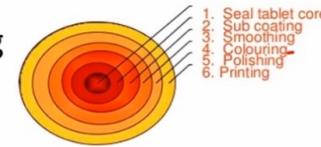
13 videos: PHCY 514 → DPMP 864

Students surveyed about their perceptions of pre-class videos and readings (n=17, 89.5% response rate)

- 3 (17.7%) students = **first experience** with pre-class videos
- 17 (100%) students = **completed readings and watched the videos** before class at least sometimes

Types of tablet coatings

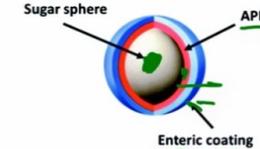
- Sugar coating



- Film coating

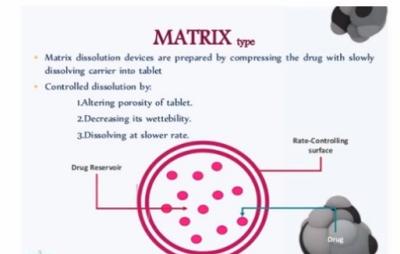
polymer

- Enteric coating



- Controlled release coating

- Other specialized coating
 - Compressed
 - Electrostatic
 - Dip coating
 - Vacuum filled coating



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Student Feedback

Table 1. Graduate student perceptions of pre-class PharmD videos utilized within a graduate course (N=17)

Item	2018 (N=7) SA or A: N(%)	2019 (N=10) SA or A: N(%)	Total (N=17) SA or A: N(%)
Watching pre-recorded lectures before class greatly enhanced my learning	7(100)	7(70.0)	14(82.4)
Learning key foundational content prior to coming to class greatly enhanced my learning of the course material during class	7(100)	7(70.0)	14(82.4)
The pre-recorded lectures prepared me for the content or activities in the corresponding class	7(100)	9(90.0)	16(94.1)
PhD courses that are taught in a classroom should offer pre-recorded lectures	5(71.4)	8(80.0)	13(76.5)

SA = Strongly Agree; A = Agree; 11 students (57.9%) were female. No significant differences found by year or gender.

Student Feedback

Preferred Pre-Class Videos

(n=15, 88.2%)

Focus of the material

Pre-recorded lectures provide a focused and succinct overview

Ease of understanding the information

It's an easy way to consume information

Preference for visual learning

Recorded lectures help with how I learn material...

Preferred Text

(n=2, 11.8%)

Value/quality of articles

...interesting things our peers are doing in our field.



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Advice

Helped students: insight into healthcare for those pursuing positions at health professions schools

Helped instructors: insight into topics addressed within PharmD and related PhD courses

Instructors Consider:

- ✓ **Alignment of videos with the intended learning objectives**
- ✓ **Ability of students to learn independently from video materials**
- ✓ **Degree to which the video content changes over time**
- ✓ **Availability of resources to create and host videos**

Video Creators: *promote sustainability of pre-class videos by:*

- x **NOT referencing current events**
- x **NOT referring to class assignments, and**
- x **NOT using web-links that may expire**



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References and Resources

Akçayır G, Akçayır M. The flipped classroom: A review of its advantages and challenges. *Comp & Educ.* 2018;126:334-45.

Chen F, Lui AM, Martinelli SM. A systematic review of the effectiveness of flipped classrooms in medical education. *Med Educ.* 2017;51(6):585-97.

McLaughlin, J.E., Greene, J., Anselmo, A., Olsen, A., Jay, M., and Hingtgen, S. (Under Review, 2021). Successful use of pre-class videos from a health professions program for pre-class learning in a biomedical graduate course. *BMC Medical Education.*

Norman MK. Twelve tips for reducing production time and increasing long-term usability of instructional video. *Med Teach.* 2017;39(8):808-12.

Roth MT, Mumper RJ, Singleton SF, Lee CR, Rodgers PT, Cox WC, McLaughlin JE, Joyner P, Blouin RA. A renaissance in pharmacy education at the University of North Carolina at Chapel Hill. *NC Med J.* 2014;75(1):48-52.

Schwartz T. Flipping the statistics classroom in nursing education. *J Nurs Educ.* 2014;53(4):199-206.

Spangler J. Costs related to a flipped classroom. *Acad Med.* 2014;89(11):1429.

Wanner T, Palmer E. Personalising learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course. *Comp & Educ.* 2015;88:354–369



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