

A Pilot Activity of Providing an Academic APPE Elective Conducted Via Videoconferencing



AUBURN UNIVERSITY
HARRISON SCHOOL OF PHARMACY

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Background

- Schools of pharmacy have an opportunity to educate students regarding faculty roles and responsibilities and encourage students to pursue careers in academia.
- Our pharmacy practice department includes 38 full-time faculty located throughout the state and in two locations in surrounding states.
- Student pharmacists are assigned to one of the five geographical regions for their fourth professional year of advanced pharmacy practice experiences (APPEs).
- A videoconferenced, academic APPE elective was designed in 2015 when a full-time faculty preceptor relocated to an area outside of the school's established regions.

Objectives

- To describe an APPE provided via videoconference between an off-campus faculty member and students and assess students' experiences and learning outcomes of the APPE.
- To describe the faculty preceptor and experiential administration's perspectives of this APPE.

Methods

- A 5-week APPE was developed using backwards design and delivered via videoconferencing with the preceptor and students physically located in different experiential regions.
- All 150 third year students were offered the opportunity to select this APPE elective for the 2015-2016 and 2016-2017 academic P4 years. For the 2017-2018 academic year, students had to specifically request to experiential administration for this APPE.
- Students participated in teaching, scholarship/research and service activities.
 - Students attended approximately three class sessions (1-3 hours per class) each week and one or two skills labs (8-16 hours) in each APPE.
 - Each week, students had approximately 5 hours of assigned pre-readings and activities to complete prior to topic discussions.
 - The students and faculty preceptor met for approximately 1.5 hours on average four times weekly via videoconference to discuss the weekly topic.
 - On average, the student spent five hours a day on videoconference with the faculty preceptor in the various APPE activities.
- Polycom RealPresence Desktop®, Polycom, Inc., Skype™ for Business (Microsoft®) or Zoom, Zoom Video Communications®, Inc. were software used for videoconferencing.
- After the APPE, students completed an electronic survey in Qualtrics® comparing their perspectives and learning outcomes pre- and post-APPE and provided qualitative feedback in addition to the standard APPE feedback evaluation through PharmAcademic™.
- The preceptor's and experiential administration's perspectives were documented.
- The university institutional review board approved this project.

APPE Activities

APPE Topics	APPE Objectives	Potential Activities
Introduction to Academia	Describe the role and responsibilities of a faculty member	<ul style="list-style-type: none"> Complete a questionnaire pre and post rotation of your knowledge of faculty positions Read articles on topics Meet with preceptor and other faculty members (research or admin focused) for discussion Write reflection after discussion on topic
	Differentiate between pathways of a faculty position and academic career options	<ul style="list-style-type: none"> Complete a questionnaire pre and post rotation of your knowledge of faculty positions Review the qualifications necessary to obtain a faculty appointment and types of appointments Discuss the annual evaluation process and promotion and tenure process at the school Discuss the faculty mentoring/faculty college process at the school Meet with preceptor and other faculty members (research or admin focused) for discussion Write reflection after discussion on topic
Learning Styles	Describe learner styles	<ul style="list-style-type: none"> Read articles on different learning styles Take learner style tests Write a reflection on your learner style Discuss with preceptor on topic
Course Development	Given course materials, the students will be able to evaluate teaching objectives and analyze a course syllabus	<ul style="list-style-type: none"> Read articles on taxonomy of educational objectives Read articles on content/development of objectives Analyze current course or topic objectives from teacher and student viewpoints Analyze syllabi of course(s) for content and communication of information to students Critique quiz questions with a focus on the lecture objectives and the expected level of cognition Identify a research question related to teaching or academic practice; Present a journal club regarding teaching/ educational topic
	Compare and contrast a variety of instructional methodologies used by faculty members in current courses	<ul style="list-style-type: none"> Read articles on different teaching methods Discussion with preceptor on topics Participate in/observe various courses (IP, PPE, CAPP, electives, etc.) Write reflections after observation of each class Identify a research question related to teaching or academic practice; Present a journal club regarding teaching/ educational topic
Assessments	Analyze a variety of assessments used by faculty members in current courses	<ul style="list-style-type: none"> Discuss test question writing and assessment with preceptor Participate in developing and analyzing test questions for assessment Write 2-4 assessment questions for an elective course Analyze answers statistics of test questions, if possible Review the item analysis of a graded quiz with preceptor Write reflection on writing test questions Identify a research question related to teaching or academic practice; Present a journal club regarding teaching/ educational topic
Educational Research/Scholarship of Teaching and Learning	Describe the research process	<ul style="list-style-type: none"> Discussion on IRB process and project overall timelines with preceptor Assist a faculty member in a research project (if applicable) Complete and submit an IRB application Data gather and analyses Develop/edit abstract for poster Develop/edit poster for meeting Write manuscript draft
Service	Describe service activities of a faculty member's position	<ul style="list-style-type: none"> Discussion with preceptor on topic of service activities Attend department/faculty meetings Attend a school committee meetings Attend faculty college session(s) Participate in faculty recruitment Attend any local, state or national pharmacy organizational activities/meetings with preceptor Write a reflection on committee/meeting attendance or service activities as a whole during the rotation

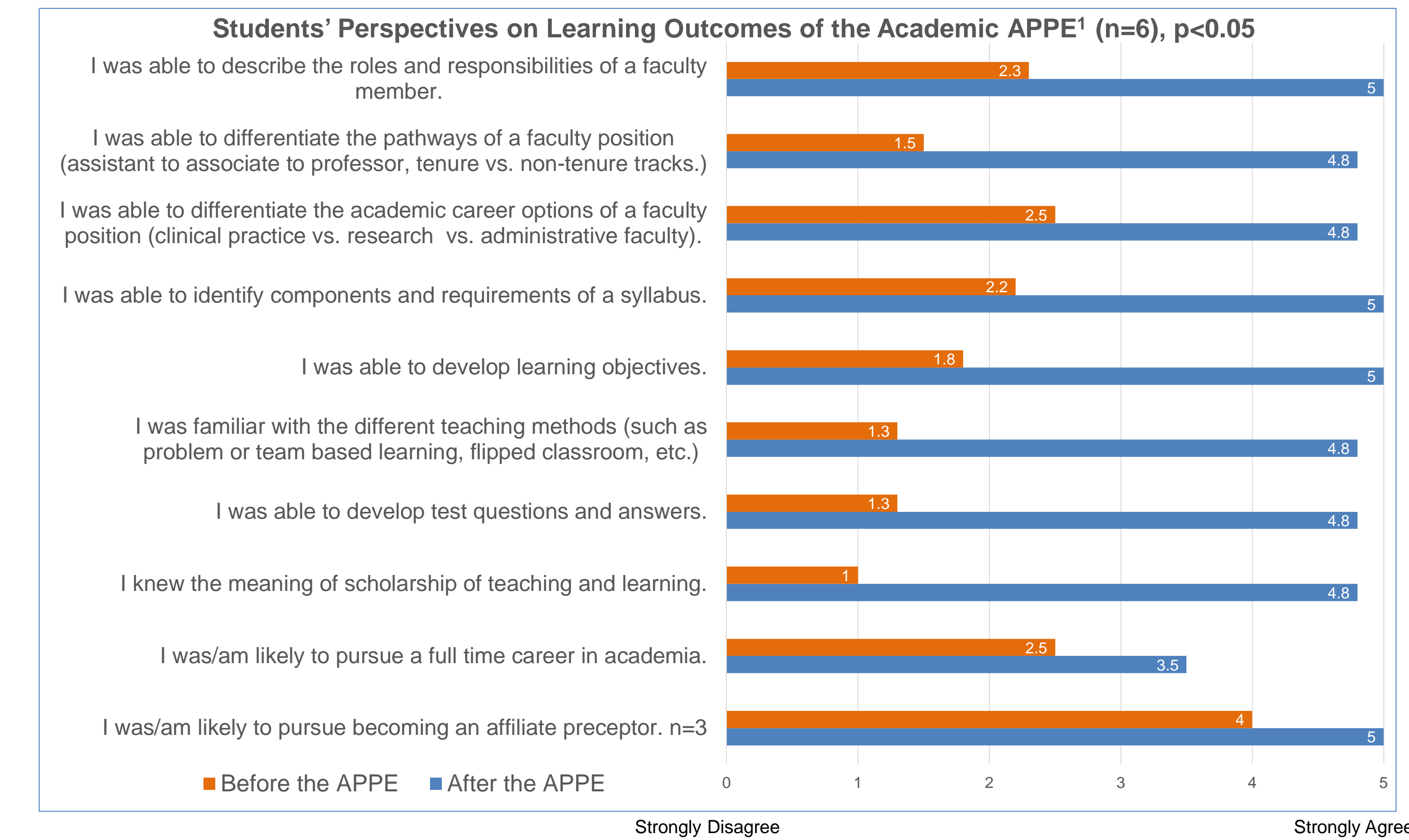
Results

- Six students completed this APPE over three academic years.
- The faculty preceptor was located at a distant site, 4 hours from campus. Four students were located on campus and two students were located in a region approximately 2 hours from the faculty preceptor.
- Students reported selecting the APPE because they wanted to learn about academia (100%), considered it an important rotation for a future career as a full-time faculty member (33%) or affiliate faculty member/preceptor (83%), sought teaching opportunities (83%), or because it offered a flexible rotation (33%).
- All students stated there was 'no hindrance' with this rotation being conducted via videoconference or with the geographical distance between preceptor and students.
- All students stated the APPE helped prepare them for residency application/interview process and working with schools of pharmacy in the future.
- After the APPE, five students (83%) stated their interest in a full-time academic career increased; one student's interest remained the same.
- All students stated they would recommend this APPE to other students.

Students' Perspectives of the Value of the Academic APPE Learning Activities¹ (n=6)

Topic	Activity	Extremely Valuable =5 (%)	Valuable =4 (%)	Neutral = 3 (%)	Not Valuable =2 (%)	Extremely Not-Valuable =1 (%)	Item Mean (SD)
Introduction to Academia	Readings and discussions	83	17	0	0	0	4.8 (0.4)
	Faculty position questionnaire	83	17	0	0	0	4.8 (0.4)
	Meetings with faculty members from other areas of the school	100	0	0	0	0	5
	Reflection	17	83	0	0	0	4.2 (0.4)
Learner Styles	Readings and discussions	83	17	0	0	0	4.8 (0.4)
	Learner style quizzes	100	0	0	0	0	5
	Reflection	33	67	0	0	0	4.3 (0.5)
Course Development	Syllabus and objectives readings and discussions	100	0	0	0	0	5
	Peer-review of course syllabus and objectives	100	0	0	0	0	5
	Syllabus & objectives reflection	50	50	0	0	0	4.5 (0.5)
	Course design readings and discussions	100	0	0	0	0	5
	Course design reflection	17	83	0	0	0	4.2 (0.4)
	Participating in therapeutics class, skills labs, electives, and seminar	100	0	0	0	0	5
Assessments (Test Item Writing)	Participating in IPPE (n=5)	50	17	17	0	0	4.4 (0.8)
	Readings and discussion	67	33	0	0	0	4.7 (0.5)
	Writing questions and answers	100	0	0	0	0	5
Educational Research	Peer-reviewing of questions and answers	83	0	17	0	0	4.6 (0.8)
	Reflection	17	83	0	0	0	4.2 (0.4)
	Readings and discussion	67	33	0	0	0	4.7 (0.5)
Service	Reflection	17	83	0	0	0	4.2 (0.4)
	Readings and discussion	67	33	0	0	0	4.7 (0.5)
	Participating in admissions interviews, attending dept/school meetings	83	17	0	0	0	4.8 (0.4)
Other Assignment	Reflections	17	83	0	0	0	4.2 (0.4)
	Journal club	67	33	0	0	0	4.7 (0.5)

Results



Standard Student APPE Evaluations¹, n=6

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
The scheduled activities were designed to meet specified course goals and objectives.	6	0	0	0
The APPE possessed an adequate level of organization and structure.	6	0	0	0
The APPE provided a sufficient degree of challenge.	6	0	0	0
The APPE stimulated my interest in this area of practice.	6	0	0	0
The APPE allowed me to apply what I learned in other pharmacy courses.	5	1	0	0
The APPE has the potential to provide a positive learning experience for future students..	6	0	0	0
Preceptor effectively communicated pertinent concepts to me.	6	0	0	0
Preceptor clearly and logically demonstrated new tasks/information.	6	0	0	0
Preceptor was available to me to constructively answer any questions.	6	0	0	0

Faculty Preceptor Reflection and Experiential Education Feedback

- The faculty preceptor's reflections and experiential administration's feedback of the APPE were positive.
 - The faculty member was very pleased with the design and outcomes of the rotation.
 - Students were engaged throughout the APPE and seemed to enjoy the activities.
 - Distance teaching worked very well and minimal technological issues occurred.

Conclusions

- Students, the preceptor, and experiential administration deemed this videoconferenced academic APPE effective and successful.
- This experience affords students, without regard for physical location, the opportunity to pursue personal interests in academia, adds to the variety of APPEs and allows students to learn about academic pharmacy careers, which is an ongoing area of need in our profession.
- Challenges include occasional technology connectivity issues and limited in-person interactions.
- Changes to the structure for future offerings were based upon the faculty's observations and the student survey responses.

1. Eiland LS, Staton AG, Stevenson TL. A Pilot Demonstration of Providing an Academic APPE Elective via Videoconferencing between Off-Campus Faculty and Students. AJPE, In Press. E-view: <https://www.ajpe.org/doi/pdf/10.5688/ajpe6645>