

Faculty and Student Perspectives on Collaborative Design and Teaching in an Integrated Curriculum

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Background

- In Fall 2017, the Auburn University Harrison School of Pharmacy (AUHSOP) implemented the first semester of a new curriculum known as the **Practice Ready Curriculum (PRC)**.
- The curriculum is characterized as **integrated** and **spiraled** and was developed using the backward design approach starting with a vision of a practice ready and team ready graduate.
 - There are no discipline specific courses, all learning experiences integrate knowledge from two or more of the foundational sciences (i.e., biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences).¹
- The curriculum is built around competencies that the practice-ready graduate should be able to do.
- These competencies are mapped to learning experiences across the curriculum from an introductory level, to repeated/reinforced to benchmark.
- This mapping allows for the focus on competencies rather than mere content coverage and allows for meaningful assessments to be integrated across the curriculum.
- To achieve curriculum integration, interdisciplinary collaboration between the 3 academic departments (**Drug Discovery and Development [DDD]**, **Health Outcomes Research and Policy [HORP]**, and **Pharmacy Practice [PP]**) in both course design and teaching is necessary.
- The **Office of Teaching, Learning, and Assessment (OTLA)** offers extensive support, and allows for centralization of the implementation process.

Objective

To describe the process used to engage interdisciplinary teams of faculty to design and teach integrated learning experiences, as well as faculty and student perceptions of this integration.

Methods

- The curriculum development and implementation process involved two main overlapping groups: a **Learning Community (LC)** and a **Teaching Team**.
 - Learning Community (LC):**
 - Consisted of **9 members** from **all three academic departments**, and **3 education support staff members** from the OTLA.
 - A formally assigned group with responsibilities that count toward faculty workload in teaching.
 - Tasked with the planning and implementation of **1 semester** of the curriculum (**see Figure 1**) and ensuring alignment of the semester vision with the overall vision of the curriculum.
 - Led by a **faculty chair** who worked closely with OTLA to orchestrate all the activities needed to plan and implement a semester's worth of teaching experiences. The LC chair was also a member of the School's curriculum committee, the Professional Education Committee (PEC).
 - The LC chair also receives guidance from a small steering committee known as **the Practice Ready Curriculum Team (PRCT)**, who focuses on steering development of the PRC.
 - Developed course syllabi, unit objectives and assessments using backwards design method.
 - Teaching Team (TT)**
 - Consisted of 2- 4 faculty members at least one of whom was also a member of the LC.
 - At least two of the three academic departments were represented in each teaching team.
 - Responsible for planning and teaching a unit in one of the experiences in the semester, which includes development of assessments, learning materials, and activities for their assigned units in alignment with the LC's vision which is in alignment with the bigger curriculum vision. The LC member acted as a liaison and was responsible for ensuring this.
 - The first semester consisted of approximately **19 teaching teams**.
- At the end of each teaching teams' unit, faculty completed a **faculty perception Qualtrics survey**, divided into 7 areas (alignment with vision for the curriculum, curriculum integration, critical thinking, active learning, assessment, unit planning and implementation) and included both open and closed questions.
- At the end of each experience **students were asked to self report** at least 3 understandings or core principles they learned and to give an example of an activity or assessment that helped to solidify the understandings.
- Student feedback was also obtained through anonymous course and instructor evaluations.
- Data from both faculty and students were deidentified, aggregated and analyzed for the purpose of using information during course review.

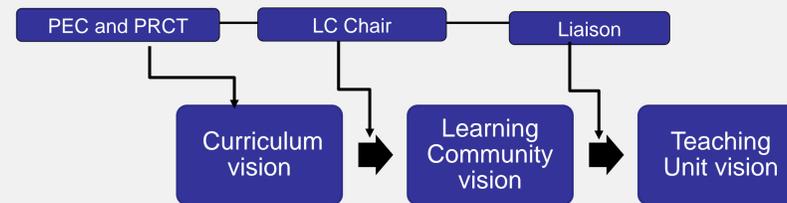
Figure 1: Organization of the 4 learning experiences across the semester

FALL SEMESTER														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PYPD 9200 / 9206			Assessment			PYPD 9400 / 9406			PYPD 9210 / 9216			Assessment		
Integrated Learning Experience I (6 hrs)			Assessment			Workshop I (1 hr)			Integrated Learning Experience II (6 hrs)			Assessment		
PYPD 9320 / 9326														
Longitudinal Experience I (3 hrs)														

The semester included 2, six-week experiences known as Integrated Learning Experiences, one (1), intensive one week workshop and one (1) longitudinal experience that spanned the entire semester, making it a total of **4 experiences for the semester**.

Curriculum Vision Alignment

Figure 2: Illustration of How the Vision of the Curriculum was Maintained Through Overlapping Team Members



Teaching Teams

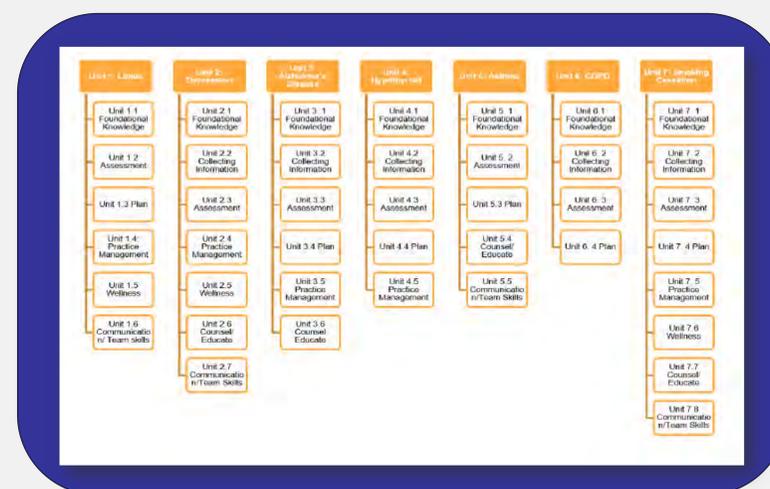
Figure 3: Number of Faculty by Department



30 Faculty members participated with representation from all 3 academic departments. **Representation from leadership:** 1 associate dean, 2 assistant deans, 3 department heads, and 2 associate department heads.

Integrated Learning Experience

Figure 4: Example of the Organization of one of the Integrated Learning Experiences (ILE)



Integrated Learning experiences are broken into units designed around disease states. Categories of competencies are clustered and assigned to each unit. Through the backward design process, the learning community and teaching teams designed objectives, assessments and content based on the assigned competencies within the disease state context.

Successes

- Both students (N= 152 participants on self reported understandings and N= 154 on course evaluations) and faculty (N= 28 responses) reported harnessing the benefits of collaborative teaching and the integrated structure of the curriculum.
- Students self reported understandings revealed that they had grasped the designed integrated principles.
- Students were also able to highlight the intended value of some of the learning activities and assessments used.

Student Quote: "In order to help treat a patient, we must look at the whole patient. Many disease states are connected and we need to be knowledgeable about them in order to properly treat the patient. The concepts from ILE1 were brought into ILE2 and I'm sure we will continue to build on those concepts throughout my time in school. This was shown by the many cases we did throughout these weeks. I enjoy the cases so much because they make what we learn in class applicable to a real patient. This is how it is going to be presented in the workplace and I am glad we are getting to look at these cases early on."

Student Quote: "A strength of the course was the one unit/disease state a week setup. It felt like it flowed nicely and aided in my learning process...I enjoyed having different professors that seemed like they had an expertise, or even a slight expertise in the subject. A couple of teachers expressed their passion for the unit and it made it so much more encouraging to learn."

Faculty Quote: "It was great working so closely with faculty members from the other departments in planning and delivery of content. I was able to get input from them that hasn't been so readily available in the past. I think this creates a more real-world experience for students."

Faculty Quote: "Several faculty on my teaching teams commented to me how impressed they were with the students' depth of thinking and questions they asked while doing cases. They seem to really be thinking hard about how all of these things fit together and I think that is a function of the level of integration they are experiencing in the curriculum.."

Challenges

- Time for collaborative design was the most common challenge identified by faculty. To team design and teach successfully requires a lot of planning and takes time for faculty members to transition mentally from teaching and planning on their own to doing so collaboratively.
- Due to time constraints some of the planned integration did not make it to the classroom and though several faculty members were teaching in the same unit it appeared siloed. This was evident to faculty and students.
- Consistency within and between units was identified by students and faculty.

Lessons Learned and Future Plans

- The learning community has systematically examined the aggregated data to determine how well implementation aligned with the intended outcomes and identified areas of strengths and areas for improvement. This is highly recommended for any collaborative teaching initiative.
- A "standards for consistency" document has been created to ensure consistency of terminology and approach in addressing certain topics.
- A shared repository of resources that may be used across units and experiences was created. For example, a SOAP note rubric and SOAP note student template.
- The learning community has come to shared understanding that teaching teams should be consistent in most areas, but students should be made aware of differing perspectives in pharmacy practice.
- The success of the integration and team teaching can be attributed to the systematic structure that was put in place to coordinate this process. In the same way that we have to support students in achieving true collaborative learning, faculty need support in order to team teach effectively.
- Having a shared goal built around competencies helped faculty to find a common ground for planning and implementing team teaching.
- Having a shared vision and macro and micro levels of that vision helped to ensure alignment.
- Leadership support is a necessity, especially for resources and facilitation of culture shift to a collaborative and integrated mental model.
- Have fun, celebrate the small wins and don't give up if the first try does not go according to plan.

References

1. Accreditation Council for Pharmacy Education. (2015). Accreditation Standards and Key Elements for the Professional Program in Pharmacy leading to the Doctor of Pharmacy Degree ("Standards 2016"). Chicago: Accreditation Council for Pharmacy Education.