

Background

- PHM301 Oncology, Hematology and Immunotherapy is a required third year pharmacotherapy course in the pharmacy curriculum.
- Traditionally an in-person course, it was pivoted to fully online in fall 2020 for 234 students.

Objectives

1. Determine correlation between level of engagement with course content (overall) and course outcome (final grade).
2. Determine correlation between engagement with course design for Workshop topics and course outcome.

Methods

- Retrieved Quercus data
 - Course grade (final)
 - Page views
 - Participation
- Analyzed data using simple Excel functionalities to observe trends
 - Query individual student engagement and course outcome.
 - Statistical analysis to determine correlation between engagement and course design

Design Strategy

Figure 1: Wiggin's Backward Design

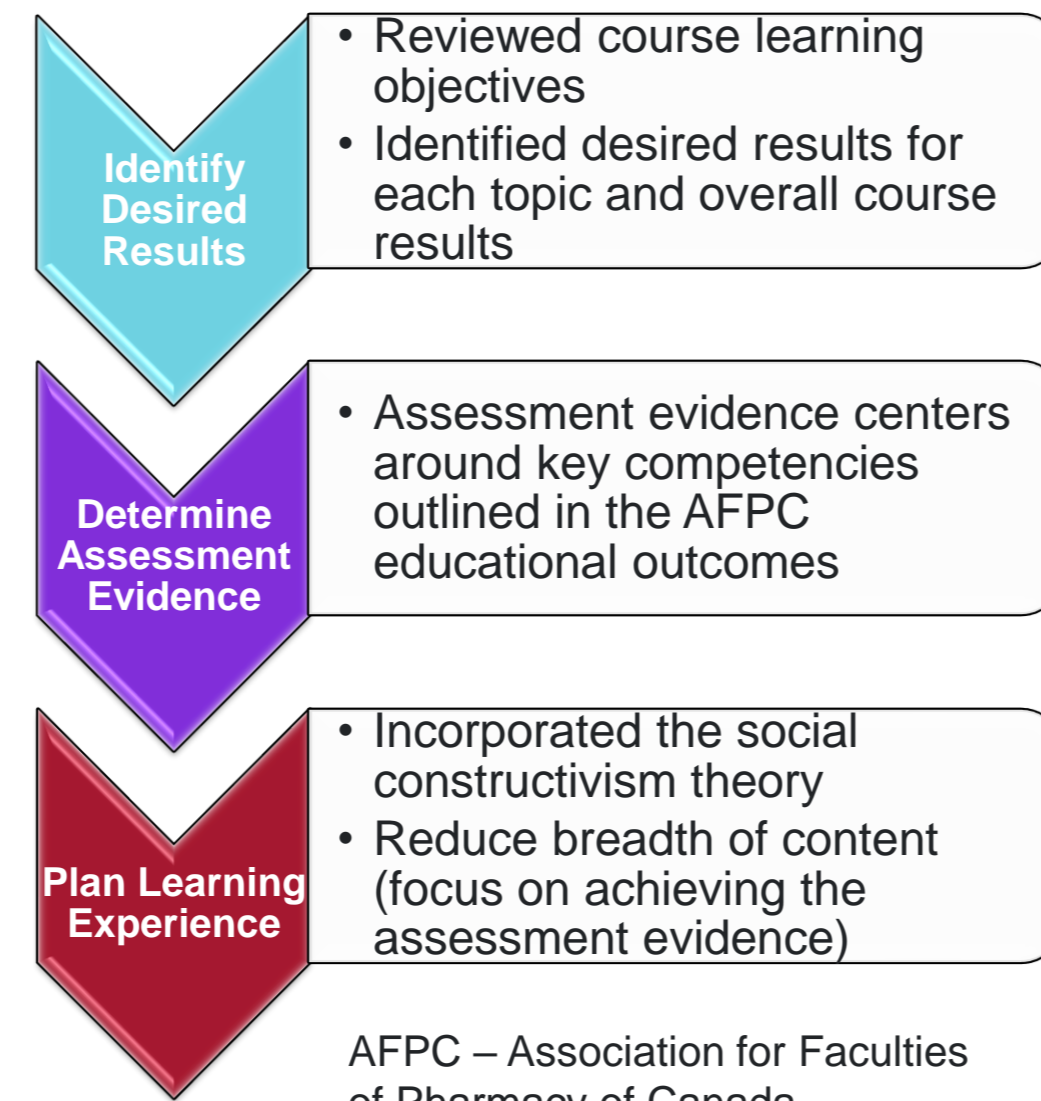
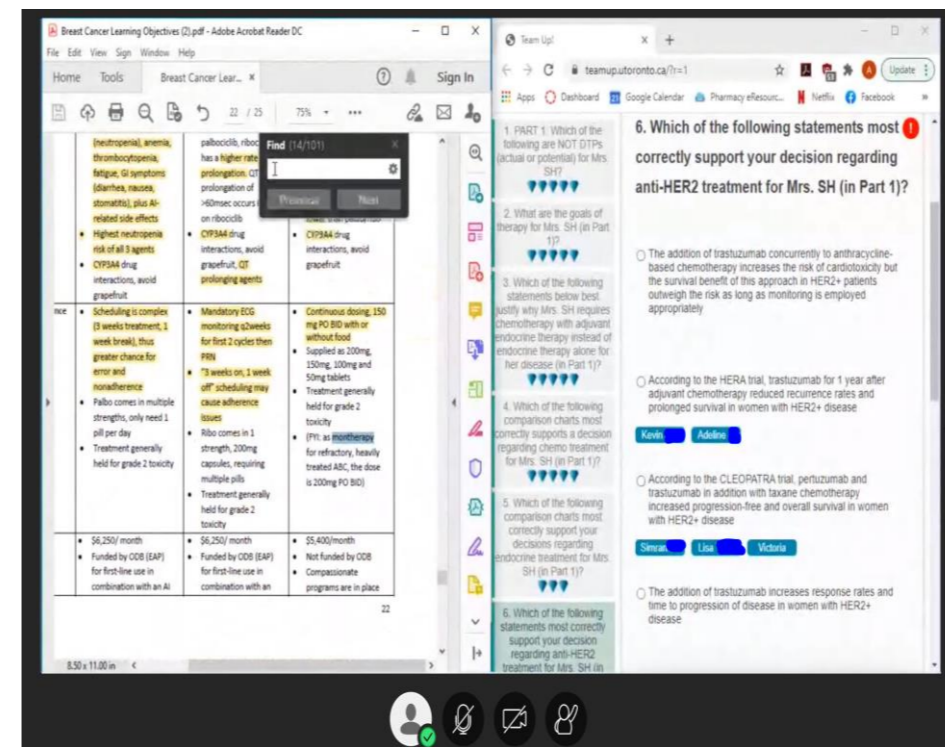


Figure 2: Example of Social Constructivism Theory and Community of Inquiry Model



Instructor-developed study guide TeamUp activity

Discussion

- Positive trend noted in level of engagement (page views and participation) and course outcome.
- Page Views appear to be better correlated with course outcome than Participation
- Students who achieved a grade of $\geq 90\%$ had the most page views and participation averages.
- Limitations include small sample size, reliability of “Page Views” and “Participation” as indicators for engagement; quality of the data as all course content is included in this Quercus analysis (e.g. announcements)

Conclusions and Next Steps

- Highly engaged students, on average, appear to outperform those less engaged.
- Does not identify individual students at risk of academic struggle.
- Next steps will look deeper into the data
 - Target data to reflect course design (e.g. lectures, knowledge check questions, workshop structure, etc)
 - Conduct statistical analysis to determine correlation between engagement and course design

Results

Table 1: Course Outcome and Level of Engagement

Course Grade (N)	Page Views Average	Participation Average
<60% (3)	855	66
60 - 69% (15)	788	55
70 - 79% (94)	883	68
80 - 89% (115)	931	74
$\geq 90\%$ (7)	1130	93

Figure 3: Level of Engagement and Course Outcome

