



Seeing through a student-pharmacist lens: Longitudinal student focus-groups to evaluate a new curriculum implementation

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10/02/20 update

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Objectives

- Discuss focus group as a qualitative method of assessment to improve learning in a higher education setting.
- Describe how focus groups can be implemented at the program level, longitudinally, to assess curriculum effectiveness and for program quality improvement using limited resources.
- Creatively engage students and their feedback on learning experience for assessment and other data driven decision-making processes for improving curricular performance and program effectiveness.

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How are focus groups defined?

The common idea represented in all definitions describe Focus Groups as (Stalmeijer, McNaughton & Van Mook, 2014):

- The discussion occurs in **small groups**
- The carefully planned discussion within the group is focused on a certain **topic/area** under consideration
- The discussion is led by a **researcher/moderator/facilitator** who stimulates active engagements of participants within the focus group
- The interaction between the participants is used to **explore the topic** of discussion

Stalmeijer, R. E., McNaughton, N., & Van Mook, W. (2014). Using focus group in medical education research: AMEE guide no. 91. *Medical teacher*, 36(11), 1-17, DOI: 10.3109/01442459.2014.917365.

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What are critical steps in focus group methodologies?



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Polling

Question 1: Have you ever used a focus group at your institution?

- Yes-it was a great success
- Yes-but I feel like I have more to learn
- No, I'm here to learn

Question 2: If so, what types of problem did you try to address:

- Existing curricular problem
- student organizational problem
- admission problem
- other

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Background for our focus group: Renewed Pharm. D. Curriculum

Departments of Pharmacy Practice and Pharmaceutical Sciences designed and implemented a renewed curriculum during Fall 2016, to educate and prepare students for the evolving demands of the profession (EACPHS, 2018).

The curriculum is being implemented as follows:

- 2016-17: First professional year (P1)
- 2017-18: P1 + Second professional year (P2)
- 2018-19: P1 + P2 + Third professional year (P3) – current year
- 2019-20: P1 + P2 + P3 + Fourth professional year (P4)

EACPHS (2020). Renewed curriculum. Eugene Applebaum College of Pharmacy and Health Sciences, Retrieved from <http://cpbs.wayne.edu/pharmd/curriculum/>

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Goal/Objective of Focus Groups

There were two main objectives driving this evaluation:

1. Response to ACPE Accreditation Action and Recommendation report from Accreditation Council for Pharmacy Education requested monitoring of the renewed curriculum implementation.
2. Research-based, data-driven, continuous quality improvement initiative for student success and teaching excellence - which are Goals 1 & 2 for WSU Strategic Plan



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Methodology / Research Design

Key features of this study:

This study assessed *student's perspectives on learning experiences* with the renewed curriculum longitudinally after each semester of implementation

Learner experiences with various components of the renewed curriculum were explored, using non-directive moderator style exploratory focus groups (Stalmeijer, McNaughton & Van Mook, 2014) as the research methodology.



Stalmeijer, R. L., McNaughton, N. & Van Mook, W. (2014). Using focus group in medical education research: AMEE guide no. 91. Medical teacher, 36(11): 1- 17. DOI: 10.3109/0142219X.2014.937365

Stakeholders and resources involved

STAKEHOLDERS	RESOURCES
Administrators – College and University	Space
Faculty - Pharmacy	Refreshments/Food for participants
Staff – Pharmacy	Audio recording equipment
Pharm.D. Students	Facilitators

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Research Questions

Research Questions

Questions were carefully pre-designed, validated and thematically organized into categories. The questions were designed in three segments

- (i) introductory or warm up questions: ex. How are you doing today? Are you comfortable? Etc.
- (ii) exploratory questions: ex. How was your learning experience with PPS? How do you think it improved/didn't improve your problem-solving abilities?
- (iii) closing or exit questions: ex. Is there anything you want to communicate that we did not cover? Would you like to provide additional anonymous feedback in our form?

Sampling strategy

Participant selection

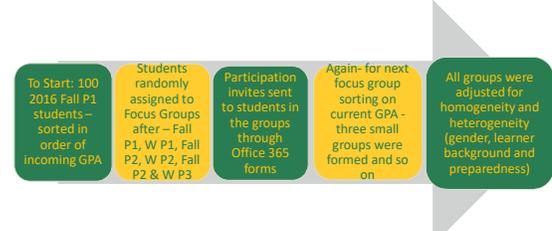
Purposive sampling (Oliver, 2011) was done to recruit participants for the curriculum Focus groups.

Group allocation

The participants were assigned to three groups. The group composition and assignment was done to accommodate homogeneous group composition with respect to shared experiences and heterogeneous with respect to factors like gender, learner background and preparedness.

Oliver, P (2011). Purposive sampling. The SAGE dictionary of social research methods. SAGE Publications. doi: http://dx.doi.org/10.1131/07201532002116

Sampling strategy: Participants and group allocation



To Start: 100 2016 Fall P1 students – sorted in order of incoming GPA

Students randomly assigned to Focus Groups after – Fall P1, W P1, Fall P2, W P2, Fall P2 & W P3

Participation invites sent to students in the groups through Office 365 forms

Again- for next focus group sorting on current GPA - three small groups were formed and so on

All groups were adjusted for homogeneity and heterogeneity (gender, learner background and preparedness)

Facilitators incorporated

Facilitators/Moderators

The facilitators for the focus group were recruited through emails to alumni members

The faculty members were not engaged to eliminate chances of bias or coercion.

The facilitators/moderators were oriented with the focus group procedure prior to the focus group discussions.

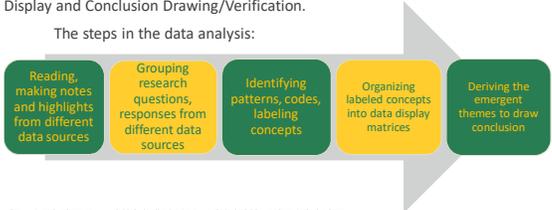


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Data Analysis

Miles & Huberman's qualitative data analysis model (1994): Data Reduction, Data Display and Conclusion Drawing/Verification.

The steps in the data analysis:



Miles, M.B. and Huberman, A.M. (1994). *Qualitative Data Analysis*, 2nd Ed., Newbury Park, CA: Sage.

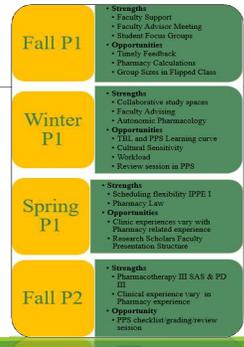


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Themes Identified

One of the most important processes in the qualitative data analysis of this study was **coding**.

Coding involves organizing the rich data in conceptual categories – **Themes** - that are valid, mutually exclusive and exhaustive




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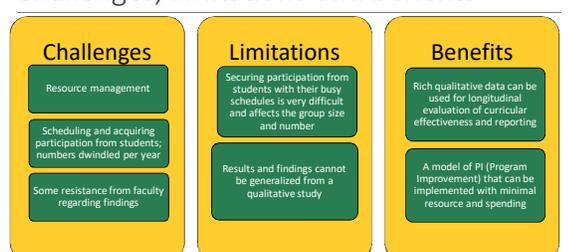
Actions taken on opportunities

FEEDBACK AND CHANGES	
Opportunities identified	Actions taken
Self-study Pharmacy Calculation	BI-weekly session with adjunct faculty for providing additional learning scaffold, since Fall 2017.
Group sizes in flipped classrooms	Group sizes for flipped classroom activity reduced to 3 per group from 6-8 per group, from Fall 2017
PPS & TBL combined learning curve during W - P1	TBL orientation session started from 2017 during Fall P1 to orient students to TBL pedagogy during Fall
Research Scholars course structure	Research Scholars SS P1 course redesigned to provide an earlier mentor match and structured faculty presentation
PPS course series	Faculty engaged in designing upper level PPS courses (Pharmacotherapeutic Problem Solving) for enhanced learning experience (considering student feedback)
Law/Ethics restructure	2 courses, Pharmacy Jurisprudence (P1) and Pharmacy Ethics (P2), were split and merged to include both topics during P1 (foundation) and P3 (advanced) years
Electives Orientation	Opportunities for elective options was instituted and is now an annual requirement for P1s and optional for P2s.



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Challenges, limitations and benefits



Challenges

- Resource management
- Scheduling and acquiring participation from students; numbers dwindled per year
- Some resistance from faculty regarding findings

Limitations

- Securing participation from students with their busy schedules is very difficult and affects the group size and number
- Results and findings cannot be generalized from a qualitative study

Benefits

- Rich qualitative data can be used for longitudinal evaluation of curricular effectiveness and reporting
- A model of PI (Program Improvement) that can be implemented with minimal resource and spending

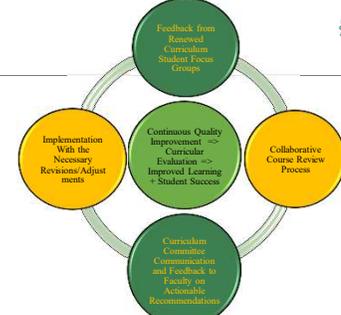


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Conclusion

Key highlights:

- Continuous data driven quality improvement cycle – holds high standards in educational assessment and curriculum evaluation
- Example of Learner centered education - making improvements in teaching/educational program with learner's feedback on learning experiences




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