



SCHOOL OF PHARMACY

BACKGROUND

- Outside of law programs, few reports appear in the literature on the utility of mock trials as a teaching-learning tool.¹⁻⁹
- The described mock trial project is a previously tested model for teaching-learning and assessment of student debate on controversial issues in health care.¹⁰⁻¹²
- The deliberate design of this specific activity reinforces cognitive skills, while affording opportunities for developing and measuring affective domain competencies.¹⁰⁻¹²
- The mock trial project was originally developed at West Coast University School of Pharmacy (WCU) in 2015 and repeated in 2016.¹⁰⁻¹²
- The mock trial project exposes students to self-directed learning and research, opportunities to apply evidence-based decision making; and immerses students in civic processes, argument and advocacy, courtroom decorum.
- Essential elements of the mock trial project include students' self-awareness, leadership, and collaboration within a group learning environment.¹⁰⁻¹²
- In 2017, an educational research collaboration between WCU and University of Maryland Eastern Shore (UMES) School of Pharmacy and Health Professions allowed its implementation in both institutions in two parallel tracks, data from which is reported here.

OBJECTIVE

- To evaluate implementation of a mock-trial used as a learning and assessment activity in a first-professional year (P1) required course at two pharmacy programs (WCU & UMES).

METHODS

- After two iterations in a P1 course at one institution (WCU: 2015, 2016), a semester-long mock-trial project was expanded to incorporate another institution (WCU and UMES: 2017).¹³⁻¹⁵
- Faculty from both institutions collaborated on topic selection, standardization of procedures, and assessment tools.
- Each cohort of students (at WCU and UMES) was divided into teams that researched, prepared, and debated the evidence-based merits "for" and "against" two distinct controversial topics in courtroom format in each of two trials:

Primary Care Shortage Trial:

- Petitioner:** Pharmacists are best equipped to address the primary care shortage.
- Respondent:** Other health professionals are best equipped to address the primary care shortage.

Manufacturer Discount Coupon Trial:

- Petitioner:** Manufacturer discount coupon programs should be maintained.
- Respondent:** Manufacturer discount coupon programs should be eliminated.

Collaborative Use of a Mock Trial as a Learning and Assessment Activity in Two Pharmacy Programs

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METHODS (continued)

- A panel of 6 faculty-judges assessed students' trial performance in each trial based on eight criteria (Figure 1).
- A panel of 10-12 student-jurors evaluated classmates in the alternate trial using the identical eight criteria; the number of jurors served in the trial varied slightly in each institution due to difference in class size.
- Students also evaluated each of their teammates' engagement in the project throughout the semester (peer evaluation) using a different checklist of seven criteria (Figure 2).
- Descriptive analyses were conducted for faculty-judge scores, student-juror scores, student-peer evaluations for each of two mock trials at both programs. Independent T-Tests were performed to compare faculty-judge scores and student-juror scores.
- Students from one program also completed a survey evaluating the overall mock trial experience.
- An Institutional Review Board approval was obtained.

ASSESSMENT TOOLS

Figure 1. Faculty-Judges/ Student-Jurors Evaluation Checklist

Evidence	Strong Evidence (10 points)	Good Evidence (2.5 points)	Some Evidence (1.5 points)	No Evidence (0 point)	Points
Learner (Domain 1) Demonstrate Foundational Knowledge/ Content					/3.0
Evidence-Basis (Domain 1) Provide Citations/References/ Applicable literature and/or law					/3.0
Apply/Integrate/Critique (Domain 1) Apply/Interpret/Compare/Contrast (applicable literature and/or law)					/3.0
Educate Audience (Domain 3) Visual Aids: (poster, diagrams, charts from literature, expert, or created by group)					/3.0
Communicate/Advocate (Domain 3) (Delivery Style, Volume, Clarity, Articulate, Pace, Tone, Eye Contact)					/3.0
Communicate/ Listening (Domain 3) Active Listening and Response					/3.0
Problem-Solving/ Critical Thinking (Domain 3) Overall Decision-Making					/3.0
Leader/Self-aware/Teamwork (Domain 4) (Optimize human, financial, time, and physical resources)					/3.0
Professionalism (Domain 4)					/3.0
Overall Performance (Domain 4)					/3.0
Total Points					/24

Figure 2. Student Peer Evaluation Checklist

	Competent (3 points)	Partially Competent (2.5 points)	Not Competent (1.5 point)	Unsatisfactory (0.5 points)	Points
Preparation Completed responses to decision making/strategy of group Able to identify problems, strategies and position possible strategies, design, implement, evaluate viable solutions Comments:	Reasonable learning skills (demonstrates strong awareness of verbal and non-verbal cues). Exhibits respectful judgment. Often some unelicited opinions and does not appear to be responsive to thoughts/opinions of fellow team members.	Reasonable learning skills (demonstrates moderate awareness of verbal and non-verbal cues). Exhibits respectful judgment. Often some unelicited opinions and does not appear to be responsive to thoughts/opinions of fellow team members.	Reasonable learning skills (demonstrates minimal awareness of verbal and non-verbal cues). Exhibits respectful judgment. Often some unelicited opinions and does not appear to be responsive to thoughts/opinions of fellow team members.	Non learning skills (demonstrates no awareness of verbal and non-verbal cues). Exhibits disrespectful judgment. Often some unelicited opinions and does not appear to be responsive to thoughts/opinions of fellow team members.	
Communication/Teamwork Effective in communicating, including effective in active listening, interviewing, and interpersonal skills. Comments:	Active listening (demonstrates strong awareness of verbal and non-verbal cues). Exhibits respectful judgment. Often some unelicited opinions and does not appear to be responsive to thoughts/opinions of fellow team members.	Active listening (demonstrates moderate awareness of verbal and non-verbal cues). Exhibits respectful judgment. Often some unelicited opinions and does not appear to be responsive to thoughts/opinions of fellow team members.	Active listening (demonstrates minimal awareness of verbal and non-verbal cues). Exhibits respectful judgment. Often some unelicited opinions and does not appear to be responsive to thoughts/opinions of fellow team members.	Non learning skills (demonstrates no awareness of verbal and non-verbal cues). Exhibits disrespectful judgment. Often some unelicited opinions and does not appear to be responsive to thoughts/opinions of fellow team members.	
Engage Facilitates thought very clearly, logically and accurately exhibits a solid command of the language. Able to educate all audiences, use effective ways to relay information, and is consistent group's position. Comments:	Clearly and logic of thought processes communicated in reasonable, some difficulty understanding	Clearly and logic of thought processes communicated in reasonable, some difficulty understanding	Clearly and logic of thought processes communicated in reasonable, some difficulty understanding	Clearly and logic of thought processes communicated in reasonable, some difficulty understanding	
Participation Interacted regularly with the group. Respected and encouraged views of others. Responded positively to others' comments. Comments:	Interacted with the group but not consistently. Respected the views of others. Responded positively to others' comments.	Interacted on a limited basis with the group. The student was not engaged in the group's comments.	The student did not interact with the group. The student was not engaged in the group's comments.		
Contribution Consistently contributed to a positive way to the group process. Accountable to team values/goal. Values team-based decision making. Promotes shared goal-directed problem solving. Shows respect for others' contributions. Promotes highly functioning team that is cohesive. Comments:	Inconsistently contributed to a positive way to the group process.	Little positive contribution to the group process. Some contributions were seen as negative.	Negative contribution to the group process.		
Leadership and Teamwork Functioned well as a member of the group. Consistently enhanced the group process. Comments:	Functioned well as a member of the group. Consistently enhanced the group process.	Functioned as a member of the group. Consistently enhanced the group process.	Functioned poorly as a member of the group. Consistently enhanced the group process.		
Professionalism (Domain 4)					
Overall Performance (Domain 4)					
Total Score _____ /18					

- Course faculty developed grading checklists to be used for evaluating students' trial performance. (Figures 1 and 2) Grading criteria included:
 - Content/Knowledge
 - Critical Thinking
 - Application/Discussion Of Federal/State Law
 - Citations/References
 - Use Of Visual Aids
 - Delivery/Style
 - Active Listening
- A separate peer evaluation checklist was used for students to evaluate their respective teammates.



RESULTS

Table 1. Summary of Scores from Four Mock Trials

Primary Care Shortage Trial					
Institution 1 (n=28)					
Judges Average	Jurors Average		Difference between Judges and Jurors Average Scores		
Mean (SD)	27.46 (0.47)	Mean (SD)	28.75 (1.27)	p < 0.01	
Median	27.46	Median	28.75		
Minimum	27.00	Minimum	27.50		
Maximum	27.92	Maximum	30.00		

Institution 2 (n=30)					
Judges Average	Jurors Average		Difference between Judges and Jurors Average Scores		
Mean (SD)	26.79 (0.55)	Mean (SD)	27.70 (0.46)	p < 0.01	
Median	26.79	Median	27.70		
Minimum	26.25	Minimum	27.25		
Maximum	27.33	Maximum	28.15		

Manufacturer Discount Coupon Trial					
Institution 1 (n=29)					
Judges Average	Jurors Average		Difference between Judges and Jurors Average Scores		
Mean (SD)	27.00 (0.00)	Mean (SD)	28.71 (1.27)	p < 0.01	
Median	27.00	Median	27.50		
Minimum	27.00	Minimum	27.50		
Maximum	27.00	Maximum	30.00		

Institution 2 (n=30)					
Judges Average	Jurors Average		Difference between Judges and Jurors Average Scores		
Mean (SD)	27.63 (0.97)	Mean (SD)	27.33 (1.32)	p > 0.05	
Median	27.63	Median	27.37		
Minimum	26.67	Minimum	26.02		
Maximum	28.58	Maximum	28.64		

Table 2. Student Evaluation of Peer Engagement in Mock Trial Project

	Primary Care Shortage Trial		Manufacturer Discount Coupon Trial	
	Institution 1	Institution 2	Institution 1	Institution 2
Mean (SD)	56.60 (4.96)	58.86 (4.13)	58.37 (3.31)	55.36 (6.65)
Median	58.59	60.00	60.00	59.17
Minimum	42.08	37.50	44.00	37.50
Maximum	60.00	60.00	60.00	60.00

Table 3. Student Evaluation of Mock Trials Experience (Institution 1)

	Total	Primary Care Shortage	Manufacturer Discount Coupon
	% agree/ strongly agree	% agree/ strongly agree	% agree/ strongly agree
1. The mock trial project provided a valuable learning experience.	86.0	78.5	93.1
2. Knowledge and skills learned in the course were used in preparing for the mock trial.	78.5	75.0	82.1
3. Participation in the mock trial challenged and further developed team members' communication skills.	87.7	78.6	93.6
4. Participation in the mock trial assessed student's ability to demonstrate professional attitude and behavior.	89.5	78.6	100
5. Participation in the mock trial provided opportunity to demonstrate responsibility and accountability to achieve team goals.	89.3	78.6	100
6. I recommend continuing with the mock trial project in the future.	82.2	75.0	89.3



SCHOOL of PHARMACY and HEALTH PROFESSIONS

DISCUSSION

- Results suggest that the mock trial project previously implemented in an Evidence-Based Practice course at Institution 1 was successfully replicated in a Public Health for Pharmacists course at Institution 2.
- Results reveal the difference between judges' and jurors' average scores was statistically significant in 3 out of the 4 mock trials. (Table 1)
- Both faculty-judges and student-jurors scores in the mock trials at Institution 1 were similar to those at Institution 2. Overall, students at both institutions met expected competencies. (Table 1)
- Student evaluations of peer engagement were also similar among the four different mock trials across two institutions. (Table 2)
- The overall mock trial experience was perceived positively by students at Institution 1. Interestingly, students who participated in the Manufacturer Discount Coupon Trial evaluated the mock trial experience more favorably than those participated in the Primary Care Shortage Trial. (Table 3)

CONCLUSION

- This study provides preliminary evidence to support that the mock trial as a learning and assessment strategy can be generalized to other programs and courses.



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