



# The Incorporation of a TikTok Activity into an Informatics Integrated Lab Sequence for Student Pharmacists.



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## BACKGROUND

- The early acquisition of technology for student learners likely changes how these students learn, and educators are challenged with creating engaging content.
- Social media plays a large role in the social and educational development of young adults.
- Currently, there is no research that uses TikTok®, a social media platform, to engage student pharmacists in the topic of informatics and medication safety.

## OBJECTIVES

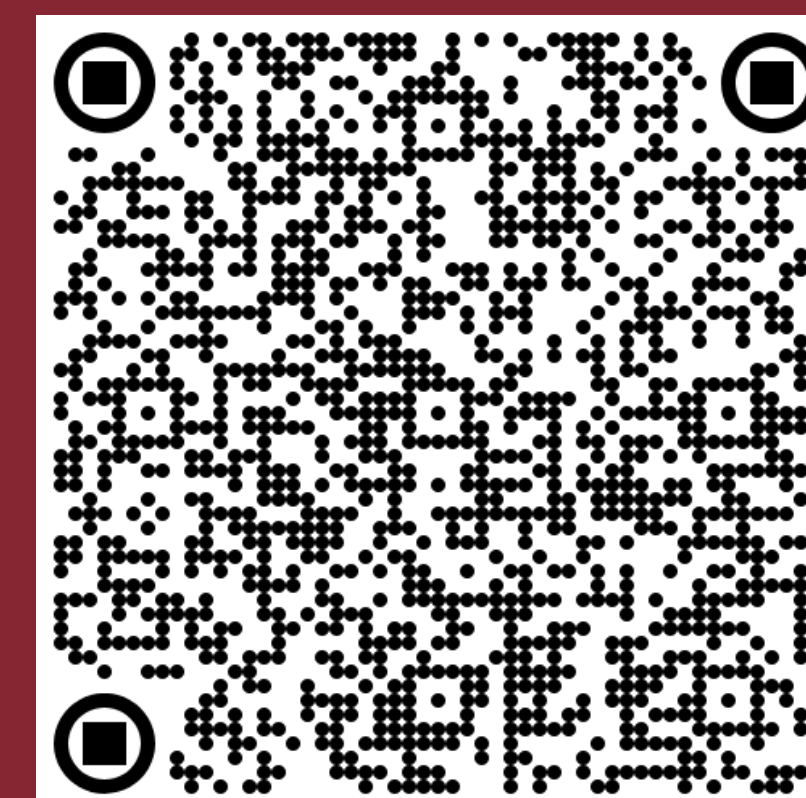
- To assess an informatics lab (ILS6) activity using a social media platform, TikTok, and to gather student perceptions on the execution of the activity.
- Assess students' growth in knowledge using TikTok as an educational tool.

## METHODS

- This study was conducted between January 2024 – March 2024 in an integrated lab setting that is 3 hours long.
- Individual students were randomized to two groups:
  - Students who have access to the TikTok videos to study for the post-class quiz (Group A).
  - Students who do not have access to the videos (Group B).
  - Both sets of students had access to the pre-class study materials.
- On class day, the students were assigned unique codes and were provided a pre-activity quiz. Demographic data included age, race, year in pharmacy school, and prior TikTok use.
- Detailed instructions for the activity can be found on our QR-code.
  - Groups of students were challenged to make an emerging technology commercial using TikTok to influence their peers.
  - The students were encouraged to use creativity, innovation, and entrepreneurship in their design and execution.
- TikTok videos from the activity were downloaded in a password-protected one-drive account shared with group A students for 1 week.
- Faculty graded the TikTok videos using a rubric.
- Students from both groups, A & B, took a post-activity quiz survey 1 week after the informatics lab.
- Data were analyzed and compared using descriptive statistics.

Student pharmacists enjoyed using creativity and innovation in the making of TikTok videos about emerging informatics technologies.

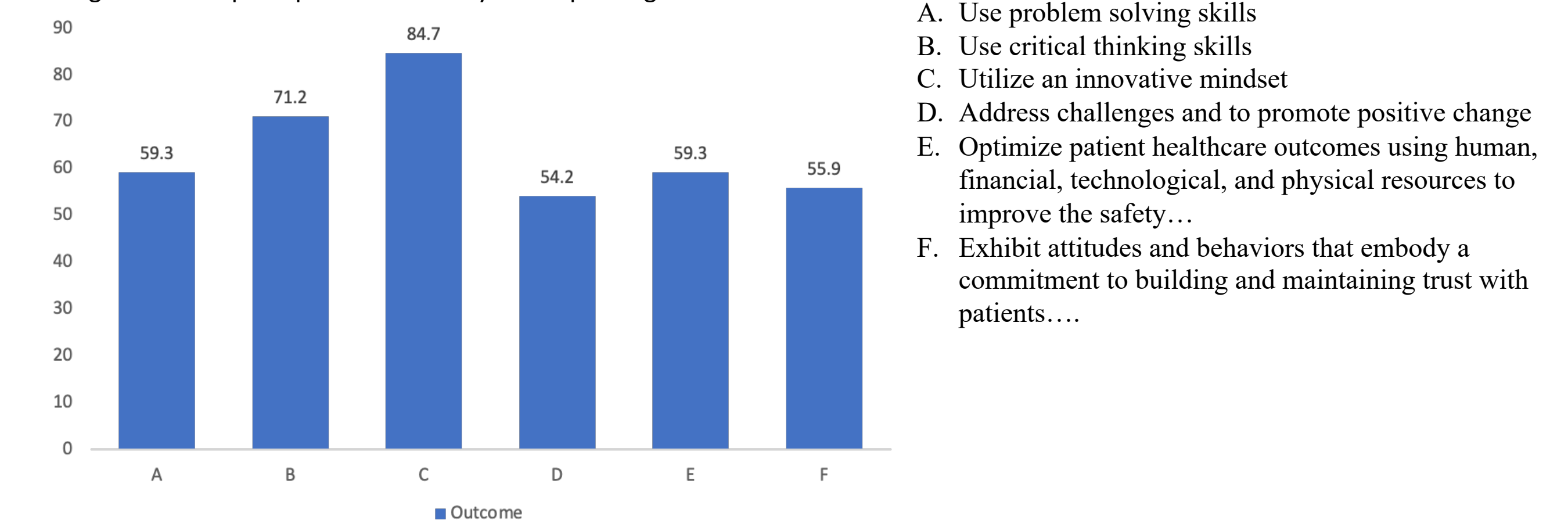
Further research is needed on the use of TikTok as a study-aid for informatics assessments.



## RESULTS

Groups	Group A (n=30)	Group B (n=29)	Feedback	
			<b>Positive</b>	
Gender			<ul style="list-style-type: none"> <li>It helped keep us engaged because it was enjoyable.</li> <li>I like that it was a different approach to learning that we haven't seen before, and I was fun watching all of the videos at the end.</li> <li>These activities promote learning, communication skills, group work and inclusiveness. Everyone has a role in the video, and no one is left not doing anything.</li> <li>We had so much fun I did not even realize I was learning.</li> <li>It taught us ways to think quickly and fill in the gaps of our peers, a parallel to an informatics team and healthcare in general.</li> <li>I thoroughly enjoyed this lab and wouldn't mind doing it again. I think it allowed everyone to develop a design that they felt would benefit the type of patient population we will serve as healthcare professionals.</li> <li>Got us up and moving instead of sitting in a lecture.</li> </ul>	
Male	12	7		
Female	18	22		
				<b>Improvement</b>
Race				<ul style="list-style-type: none"> <li>I found that not that many people knew how to make TikTok's so there was a significant learning curve there.</li> <li>Having prior knowledge on how to make a TikTok video would definitely help.</li> <li>Making the actual TikTok is actually very hard if you don't know what you are doing. Honestly, all I know how to do is record a straight video without breaks. Maybe make sure each group has somebody that knows how to create and edit videos.</li> <li>It's difficult to come up with an idea quickly enough to create a TikTok. The idea needs to either be given to us or we need to have an easier prompt.</li> </ul>
White	21	18		
Black	4	9		
Hispanic	2	0		
Middle Eastern	1	0		
Asian	1	2		
Other	1	0		
			<b>Modified Progression</b>	
No	28	28		
Yes	2	1		
			<b>Familiarity with TikTok</b>	
Very frequently	10	6		
Frequently	9	7		
Occasionally	5	3		
Rarely	0	2		
Very rarely	2	5		
Never	4	6		

Fig 1. Student perceptions on activity accomplishing outcomes



Question	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
TikTok is an effective means to share informatics knowledge	11 (18.6%)	26 (44.1%)	8 (13.6%)	12 (20.3%)	2 (3.4%)
I would like to do more labs in this format	8 (13.6%)	16 (27.1%)	17 (28.8%)	7 (11.9%)	11 (18.6%)
I found using the TikTok helped expand my knowledge about informatics	5 (8.5%)	30 (50.8%)	6 (10.2%)	13 (22.0%)	5 (8.5%)

- Of the group A students, 66.7% agreed or strongly agreed that the TikTok videos enhanced their knowledge on informatics, however only 50% reviewed the videos outside of class.
- Eleven (37.9%) of group B students passed the post-assessment compared to 8 (26.7%) of group A students.
  - However, students in group A performed better on 3 of the questions than group B on the 8-question post-assessment.

## DISCUSSION

- ACPE 2016 Standard 4.3 requires student pharmacist graduates engage in innovative activities by using creative thinking. This TikTok lab activity provided an opportunity to develop these skills.
- While many students reported frequent or very frequent familiarity with TikTok, feedback suggest that lack of technical knowledge of the app was a barrier.
- Underutilization of the TikTok videos outside of lab time by group A may have contributed to the lower passing rate on the post-assessment compared to group B.
- Most students found TikTok to be an effective means to share informatics knowledge and helped to expand their knowledge about informatics.