

Creative Learning Activities for Use in Community Outreach & Their Impacts on Medical Student Engagement

BACKGROUND

- In addition to medical knowledge, medical students must develop skills in **communication, teaching, adaptability, and empathy.**
- Engaging in teaching activities through community service offers **practical, effective ways** to cultivate these skills compared to traditional studying by providing hands-on experience.

OBJECTIVE

- To foster **additional skills** and reinforce the **importance of community involvement** in practice, we **advocate for medical student volunteering** in teaching-related community outreach projects.

METHODS

- Thirty medical students volunteered for **two outreach programs** at the Virginia Tech Carilion School of Medicine (VTC SOM): Kids' Tech University (KTU) (twenty students) and Medical Discovery of Careers (MedDOCs) (ten students).
- Through **innovative teaching methods**, these programs provided an interactive platform to explore complex topics related to the **physiological functions of our special senses** while engaging in socially stimulating activities.
- We adapted a **survey to assess engagement**, and compared participants' perceptions of engagement in studying versus teaching

RESULTS

- Survey results indicated that **students felt more engaged while teaching** (average score of 5.8 ± 0.1) **compared to studying** (average score of 4.4 ± 0.1) ($P < 0.01$) on a seven-point scale, where one is the lowest and seven is the highest.
- Positive comments from students further revealed a **shared desire for greater involvement**, driven by increased feelings of fulfillment following outreach activities.

Comparison of Medical Students' Self-Perceived Engagement in Studying Versus Teaching

Engagement Scale 7 points scale	Studying Avg (St. Dev.)	Teaching Avg (St. Dev.)	P
When I am doing my work as a student/teacher, I feel bursting with energy	4.33 (0.5)	5.78 (0.67)	P=0.001
I feel happy when I am studying/teaching	4.44 (1.25)	6.00 (0.5)	P=0.01
I am immersed in my studies/teaching	4.56 (1.42)	5.78 (0.44)	P=0.05
I get carried away when I am studying/teaching	4.33 (1.12)	5.56 (0.88)	P=0.01



CONCLUSION & FUTURE DIRECTIONS

- In this study, we highlighted the value of **community outreach programs** as they provide more than just opportunities for medical students to give back to society; they are **catalysts for personal and professional development.**
- Active participation in such initiatives enriches **students' educational experiences** and **cultivates essential skills and values** that better prepare them for real-world complexities.
- We intend to **continue data collection** over four years to track engagement of medical students in teaching roles as they progress from preclinical to clinical years.
- Through rigorous evaluation of the impact of community teaching initiatives, we aim to **adapt and enhance our programs** to better serve both medical students and the communities in which they engage.

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Check out Kids' Tech University activities here!

<https://ktu.fralinlifesci.vt.edu/>



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