

Leveraging AI-Powered Videos to Bridge Health Literacy Gaps in Diverse K-5 Communities

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Background

Early childhood health education is critical for long-term health, yet disparities in Georgia curriculum delivery contribute to health literacy gaps. The Elementary Pediatric Health Curriculum (EPHC) delivers 11 structured K-5 health lessons each year at Burgess Peterson Academy (BPA), an Atlanta Title 1 school with 65% minority enrollment and 31% economically disadvantaged students. **Objective:** Expand accessibility of the EPHC curriculum via development of AI-powered educational videos featuring diverse characters and engaging storytelling to reinforce classroom learning at home.

Intervention

- Leverage AI-powered video creation software (Powtoon) to translate 30-min EPHC-developed lesson plans into 4-6 minute bite-sized videos.
- Begin pilot distribution of videos to faculty and parents during PTA meetings, with broader distribution by end of June.
- Track metrics related to video completion rates, survey responses, and behavior adoption.

Outcomes

- Developed high-production videos with average **development time <3hrs**, significantly reduced from >10hrs from manual creation and animation.
- Received positive PTA feedback regarding **age-appropriate, doctor-developed** health content, with desire to market and share videos and resources beyond BPA families.
- To date, EPHC in partnership with BPA has delivered over **1200 classes** in-person since 2018, with **>580 Health Professionals** volunteering an estimated time value of **>\$350,000**.
- **Spaced repetition** across multiple modalities help messages “stick” for kids and parents.

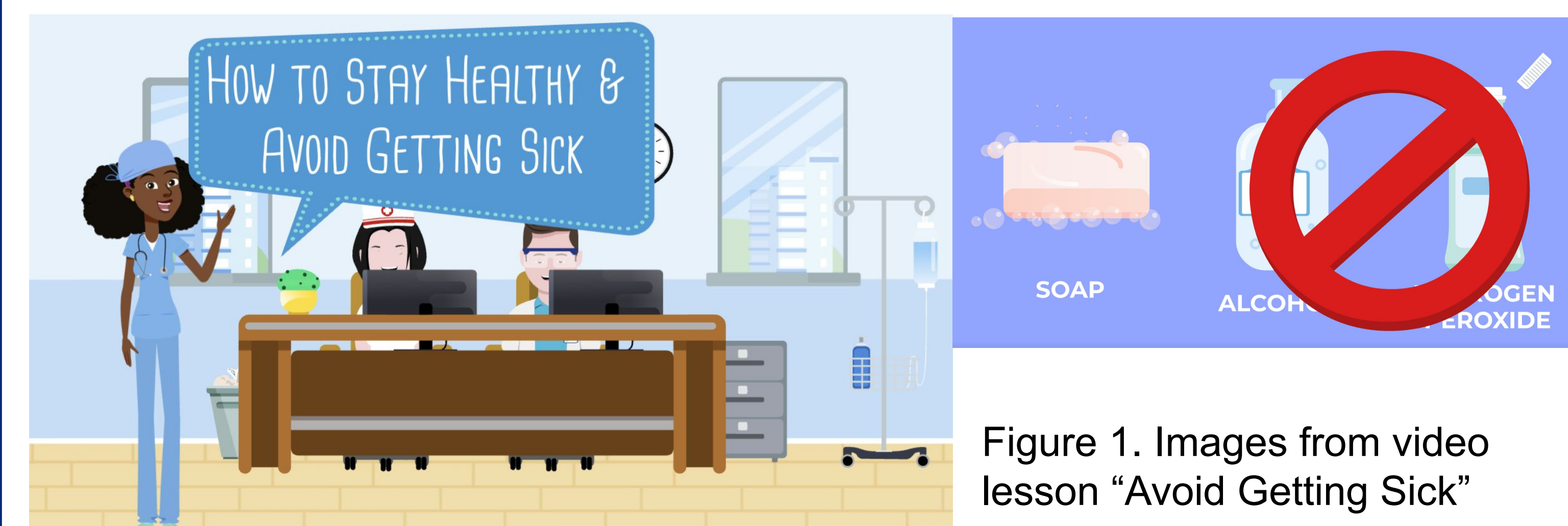


Figure 1. Images from video lesson “Avoid Getting Sick”

Videos	
1. Hydration	7. Healthy Sleep
2. Healthy Eating	8. Taking Care of Your Teeth
3. Exercise in Medicine	9. Avoiding Injury
4. Avoid Getting Sick	10. Listening to Your Body
5. Emotional Health	11. Consequences of Health
6. Maintaining Healthy Relationships	

Table 1. The 11 health education lesson topics

Conclusions

- Powtoon is a **low-cost** tool that significantly reduces the time-to-creation, providing a **scalable model** for expanding EPHC reach.
- Videos effectively extend classroom learning to school families, ensuring **consistent messaging** for students at home and school.
- There is a large appetite from parents and faculty to **expand lessons** to include healthy social media habits, positive body image, and supporting mental health.
- Collaboration with the PTA is paramount to **parental engagement** and adoption at home.
- Offering multiple engaging modalities reinforce learning while **modeling ideal conversations** between parents and kids.

Future Directions

In the next year, members of EPHC intend to:

- Expand EPHC curriculum (e.g., social media habits, positive body image).
- Broaden digital reach to families at other Title 1 schools (currently limited by volunteer hrs).
- Evaluate the long-term efficacy of the health curriculum on students that have received lessons over multiple years.