#Vaping and #Nicotine Content on TikTok: A Comparative Analysis of Themes and User Interaction

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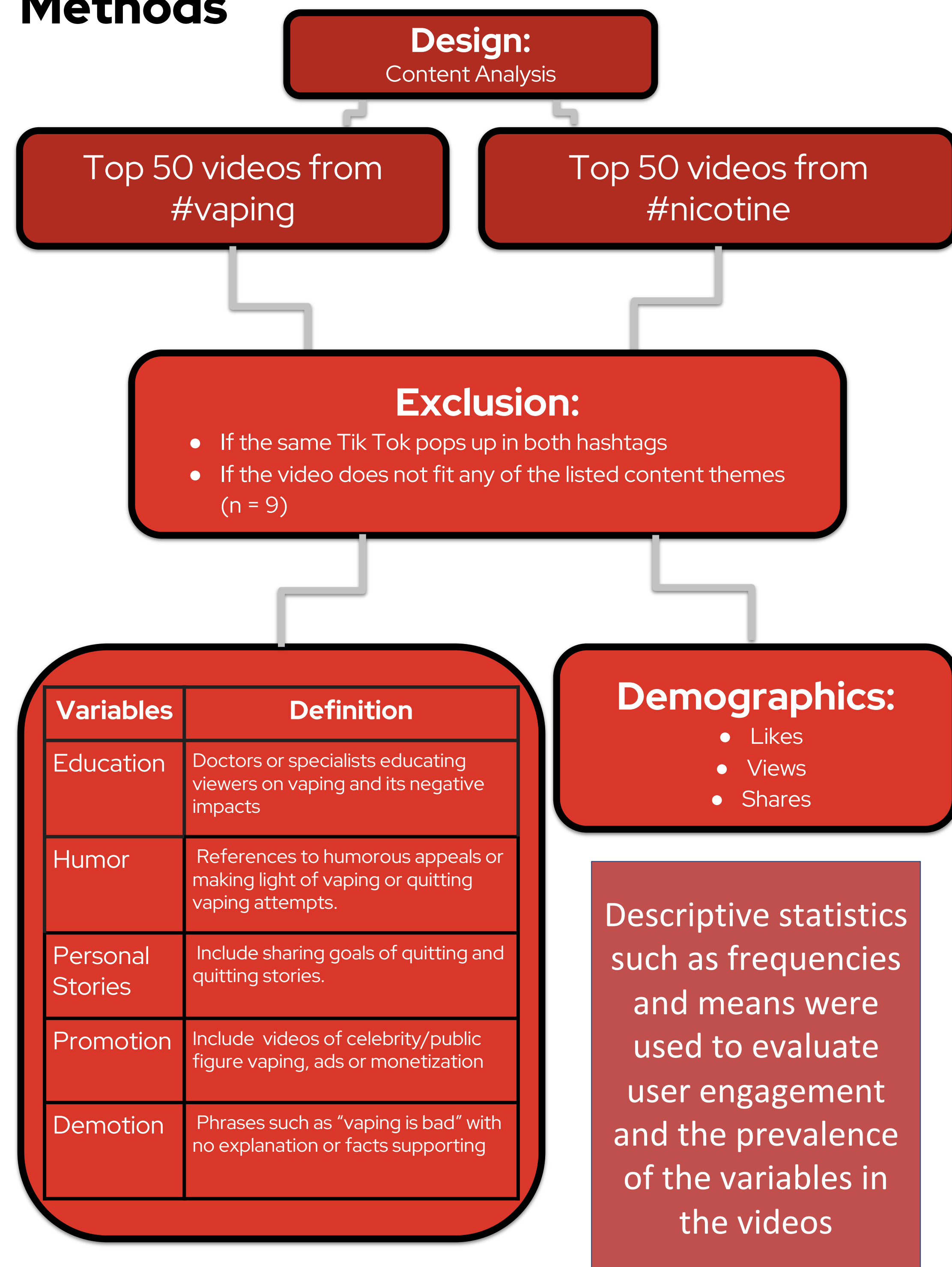
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Introduction

- E-cigarettes include a diverse group of devices that allow users to inhale an aerosol, which typically contains nicotine, flavorings, and other additives
- 78% of adolescents have been exposed to at least one e-cigarette advertisement
- National Institute on Drug Abuse (NIDA) found that the prevalence of vaping among adolescents has tripled in the span of two years
- The TikTok vaping community has over 1.1 billion views collectively
- According to the U.S. Department of Health and Human Services, adolescents can feel dependent on nicotine sooner than adults
- TikTok's algorithm-driven platform keeps individuals engaged by offering highly personalized and diverse content, which can influence trends, self-expression, and social interactions especially among adolescents as two-thirds of adolescents have TikTok

Gap: Few studies have analyzed #vaping and #nicotine content on TikTok to compare and assess their most prominent themes

*The **purpose of this study** is to* address the gap in comparing vaping and nicotine content on TikTok in order to better understand the prevalence of content such as humor, education, personal stories, promotion, and demotion.

Methods

Design:
Content Analysis

Top 50 videos from #vaping

Top 50 videos from #nicotine

Exclusion:
- If the same Tik Tok pops up in both hashtags
- If the video does not fit any of the listed content themes (n = 9)

Variables	Definition
Education	Doctors or specialists educating viewers on vaping and its negative impacts
Humor	References to humorous appeals or making light of vaping or quitting vaping attempts.
Personal Stories	Include sharing goals of quitting and quitting stories.
Promotion	Include videos of celebrity/public figure vaping, ads or monetization
Demotion	Phrases such as "vaping is bad" with no explanation or facts supporting

Demographics:
- Likes
- Views
- Shares

Descriptive statistics such as frequencies and means were used to evaluate user engagement and the prevalence of the variables in the videos

Results

−In total, **91** TikToks were analyzed, #nicotine n = 45, #vaping n = 46

| Mean			
Column 1	# #Vaping	# #Nicotine	
Views	2,901,442	2,076,892	
Shares	35,905	15,832	
Likes	290,799	275,183	

−On average, #Vaping has more than twice the amount of shares on videos than shares in #Nicotine
−In #Nicotine, **promotional content** received the fewest average shares with 1,007 shares
−**Educational** content received the fewest average shares in #Vaping with 6,899 shares
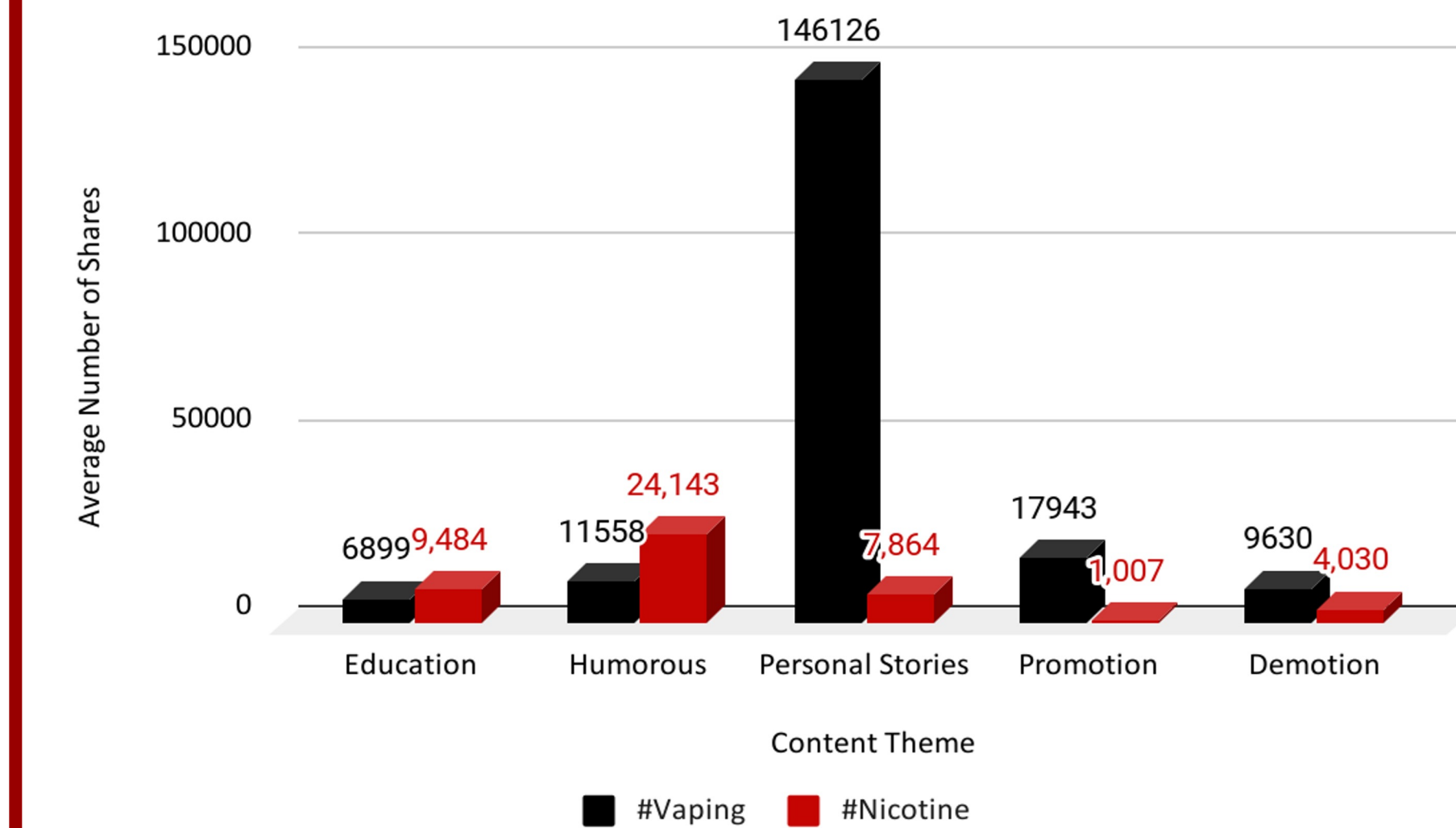

Proportion of Theme Present Among Sample

Average Views on #Vaping and #Nicotine Comparing Differences Across Themes
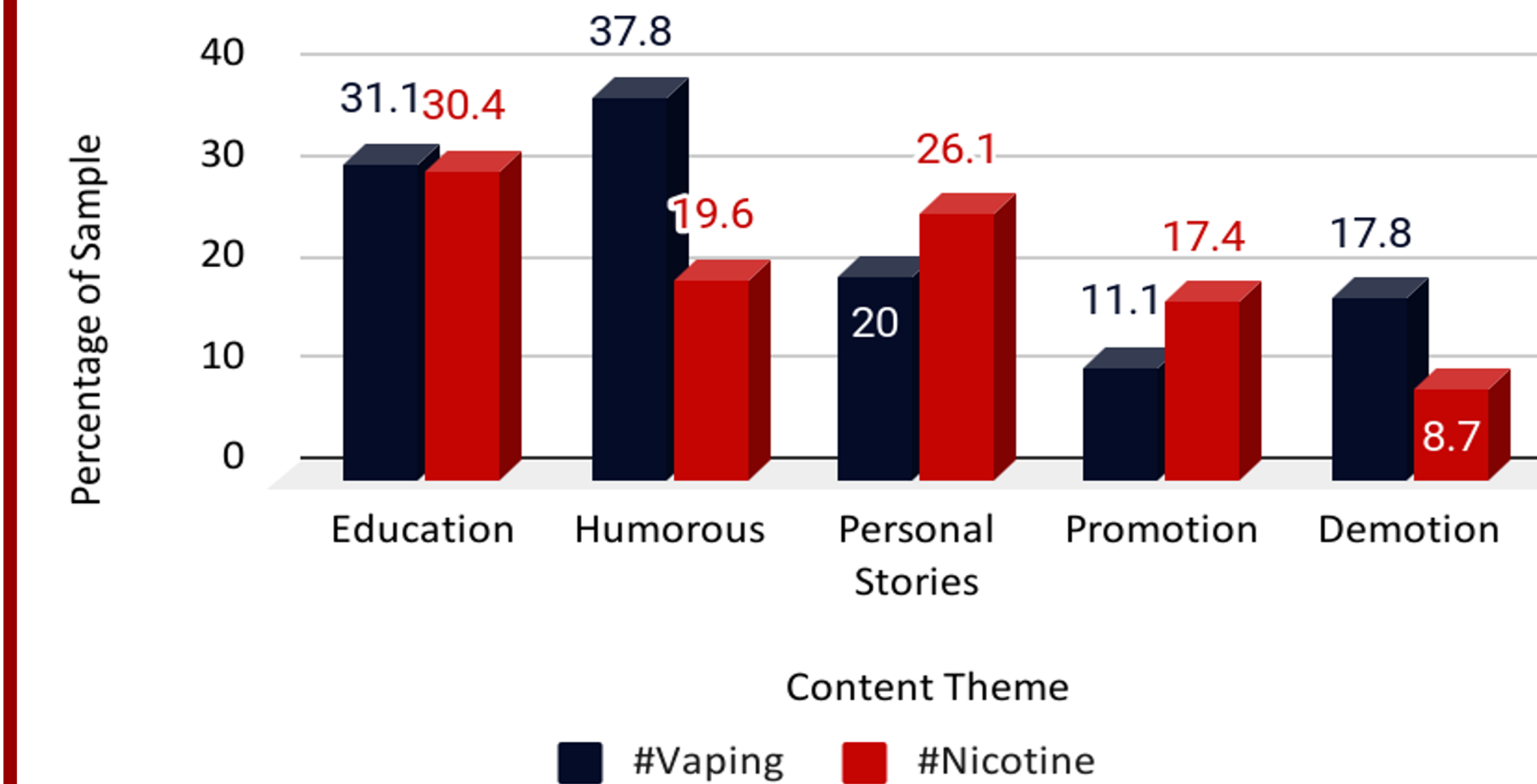
−**Educational Content** had similar prevalence in both both hashtags with 31.1% in #Vaping and 30.4% in #Nicotine
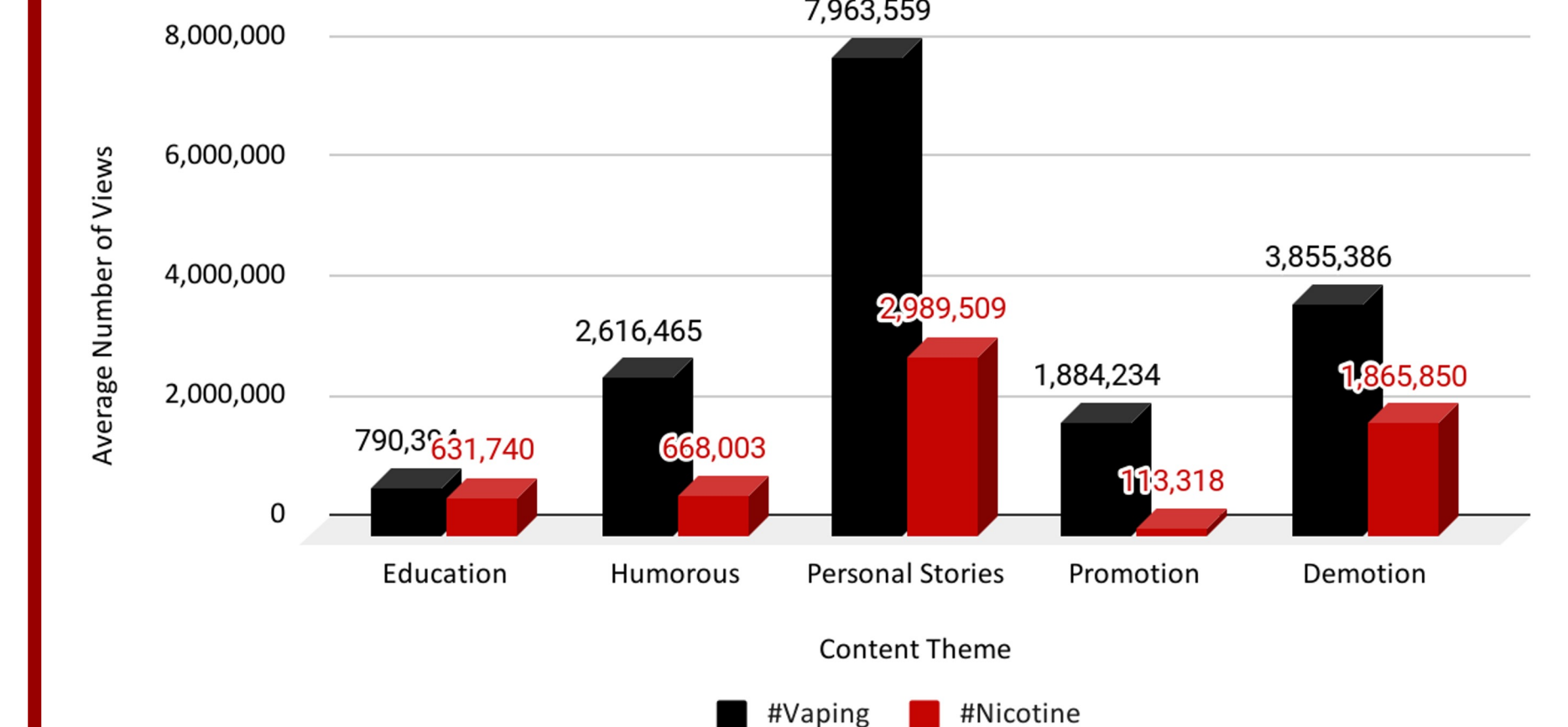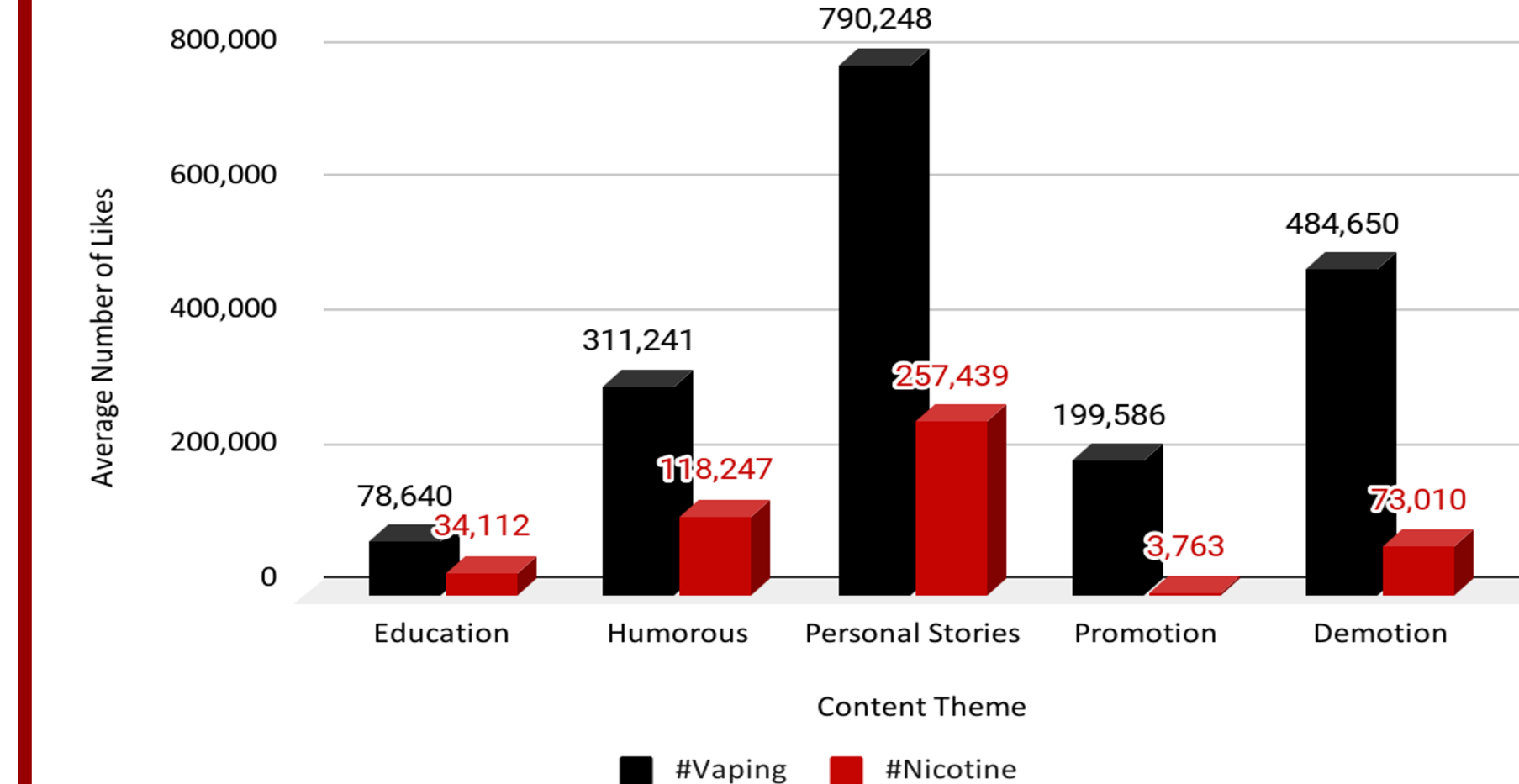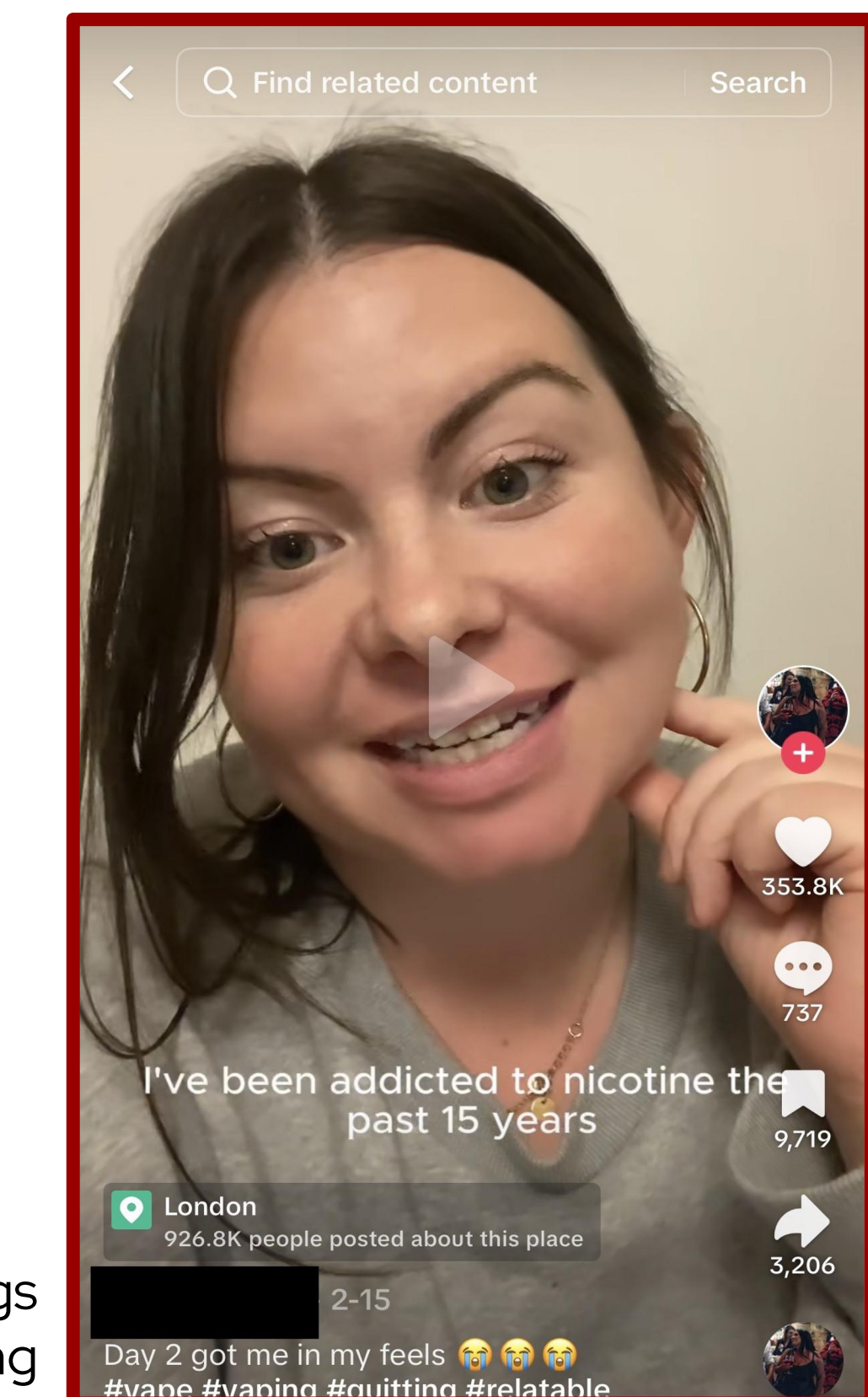

Average Shares on #Vaping and #Nicotine Comparing Differences Across Themes

Average Likes on #Vaping and #Nicotine Comparing Differences Across Themes

−On average, **personal stories** received the most likes among both hashtags
−**Promotional content** received the least amount of likes on average among both hashtags

Example post from #Vaping with personal story content

Conclusions

Key Findings
- #Vaping had higher average views, shares, and likes compared to #Nicotine.
- **Educational Content** was most prevalent in #Nicotine whereas **Humorous content** was most prevalent in #Vaping
- **Personal Stories** receiving the highest average views, shares, and likes across both hashtags
- Promotional Content received the least views and likes across both hashtags

Limitations
- A larger or randomized sample size from each hashtag would provide more accurate and reliable data
- Creators may pay to get their content boosted or buy likes

Implications
- Viewers seem have a preference for content with real-life experiences they can sympathize or relate to over generic content with no emotional appeal
- Promotional content received the least engagement suggesting that it is less effective in capturing audience attention.
- Content specific to vaping seems to have a greater appeal which can be useful to educators or marketers promoting health campaigns
- Using educational content for #Nicotine and humorous content for #Vaping seems to align with user preferences and will boost engagement
- Future studies should explore how personal stories and education content impact adolescents who use nicotine

Acknowledgements

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