CHEM CLASS IN A GLASS: INFORMAL SCIENCE EDUCATION MEETS SOCIOCULTURAL ENGAGEMENT

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AIMS

This presentation discusses the conceptualisation and execution of an innovative science outreach event, "Chem Class in a Glass" (CCG), a hands-on workshop for adults that blends chemistry with cocktails/mocktails. CCG is integrated within SciFest 2024, a UNSW event for the Sydney Science Festival. The event aims to raise funds to support regional and rural high school students to participate in research-integrated learning opportunities.

THEORETICAL BACKGROUND

Our approach is informed by research on public engagement with science festivals. Davies et al., (2019), frame the role of science communication as part of the broader sociocultural landscape, highlighting the impact of narrative and emotion in events that encompass collective meaning-making. Science events held in familiar community settings, such as bars, are thought to reduce barriers to engagement and widen the accessibility of science communication (Sardo & Grand, 2016). Studies by Ramsey & Boyette (2019) highlight the importance of interaction with researchers and diverse science engagement activities, suggesting that such events can significantly heighten participants' interest and curiosity in scientific knowledge.

APPLICATION TO PRACTICE

While creating cocktails/mocktails in a social setting, akin to a recreational "cocktail class", CCG participants engage with chemical principles such as pH, molecular structure, and density. UNSW scientists will connect these concepts to current research. This event creates a "high fun, low stakes" environment for engaging with science, as described by West (2022). Differing from traditional science outreach events, CCG targets an audience with a strong social connection to science as part of popular culture, aiming to attract those who may support fundraising for student research-integrated learning opportunities. By bringing a fun and familiar setting to a university campus, CCG capitalises on science engagement to celebrate the importance of hands-on science.

CONCLUSIONS

CCG's design and theoretical underpinnings invite discussion on the effectiveness of integrating scientific education within culturally resonant, informal settings. This presentation will outline the design of CCG, discuss its implications for broader science communication strategies, and explore the potential for similar approaches to enhance public engagement and support equitable science education activities.

REFERENCES

Davies, S. R., Kirby, D., Horst, M., Halpern, M., & Lewenstein, B. (2019). Science stories as culture: experience, identity, narrative and emotion in public communication of science. *Journal of Science Communication*, 18(05). https://doi.org/10.22323/2.18050201

Ramsey, J., & Boyette, T. (2019). Does the messenger matter? Studying the impacts of scientists and engineers interacting with public audiences at science festival events. *Journal of Science Communication*, 18(02). https://doi.org/10.22323/2.18020202

Sardo, A. M., & Grand, A. (2016). Science in Culture. *Science Communication*, 38(2), 251-260. https://doi.org/10.1177/1075547016632537

West, C. P. (2022). Low Stakes, High Fun? Genre, Gender, and Identity at Adult Science Entertainment Events. Thesis. The University of Wisconsin-Madison.

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