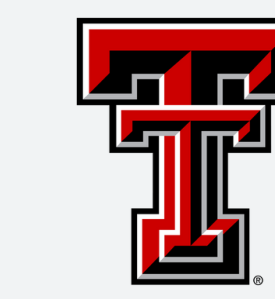
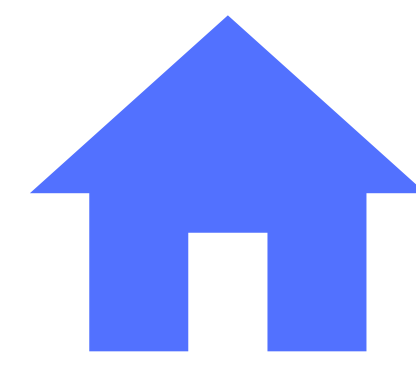




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Texas Tech University

Introduction

- Trust in the news media has fallen significantly, and the spread of misinformation online has become a major problem (Gallup & Knight Foundation, 2020).
- To date, there has been little to no research done on the implications of fake news in the agricultural industry.
- The purpose of this study was to determine how adept college students are at identifying fake news when asked to select the fake and real news stories out of a series of mock social media posts.

Research Question

- (RQ1) How well do college students perform at identifying fake news on agricultural topics?

Framework

- This study utilized critical thinking as a foundation for understanding how respondents classify information as real or fake.
- Critical thinking is “the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action” (What is critical thinking?, 2010, p. 70).
- Critical thinking is the basis for students’ evaluations of news articles online (Pilgrim et al., 2019), and it has been previously linked to people’s ability to identify fake news (Machete & Turpin, 2020).

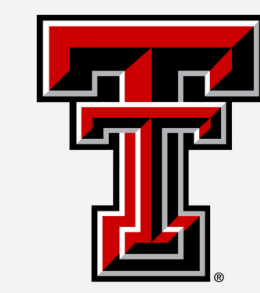
References

Gallup & Knight Foundation. (2020). American News 2020: Trust, Media and Democracy. <https://knightfoundation.org/wp-content/uploads/2020/09/American-News-2020-Trust-Media-and-Democracy.pdf>

Machete P., Turpin M. (2020). The use of critical thinking to identify fake news: A systematic literature review. In: Hastings M., Mattheo M., Smuts H., Pappas I., Davani M., Marjanska M. (Eds.), *Responsible design, implementation and use of information and communication technology*. vol. 12067. pp. 235-244. Cham: Springer International Publishing. doi: 10.1007/978-3-030-45002-1_20

Pilgrim J., Norris S., Blodgett C. & Marinet, E. (2019). Critical thinking is critical: Outposts, online sources, and reliability reasoning. *The Reading Teacher*, 72(1), 85-93. doi: 10.1002/rt.1800

What is critical thinking? (2010). *NACADA Journal*, 5(4), 70. <https://www.proquest.com/ib-e270/ttu-edu/scholarly-journals/teaching-cps-ncsp/overview/5232144page/2?accountid=1098>



Can You Believe This?

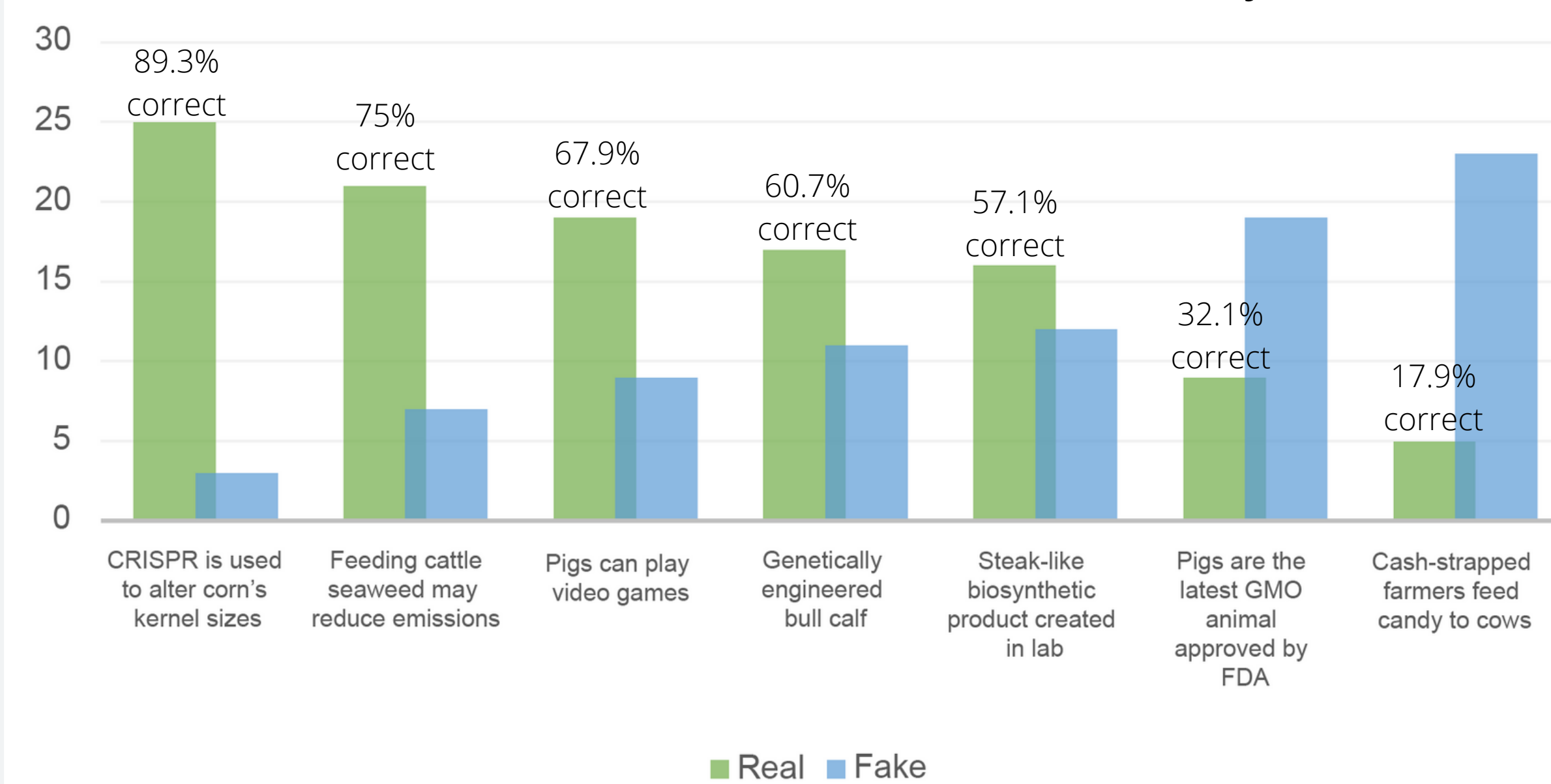
College Students' Ability to Identify Fake News on Agricultural Topics



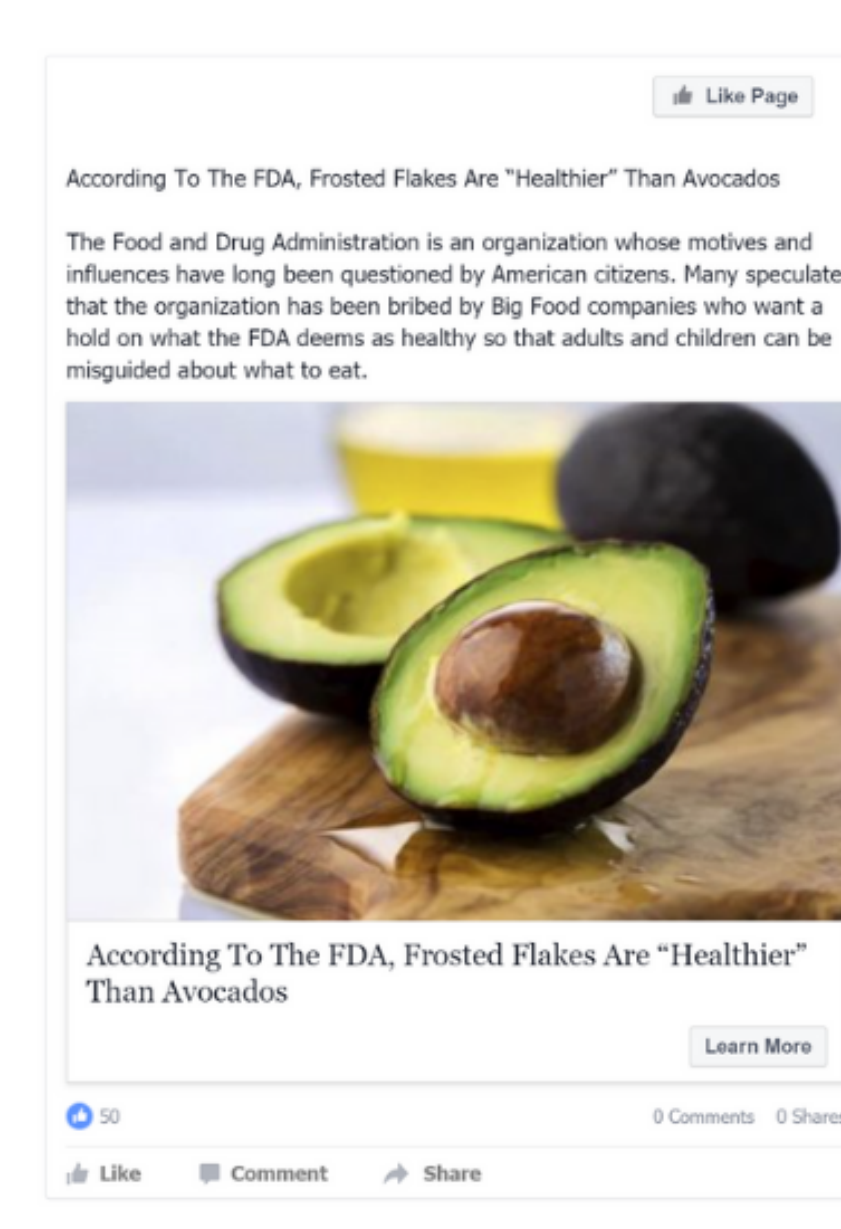
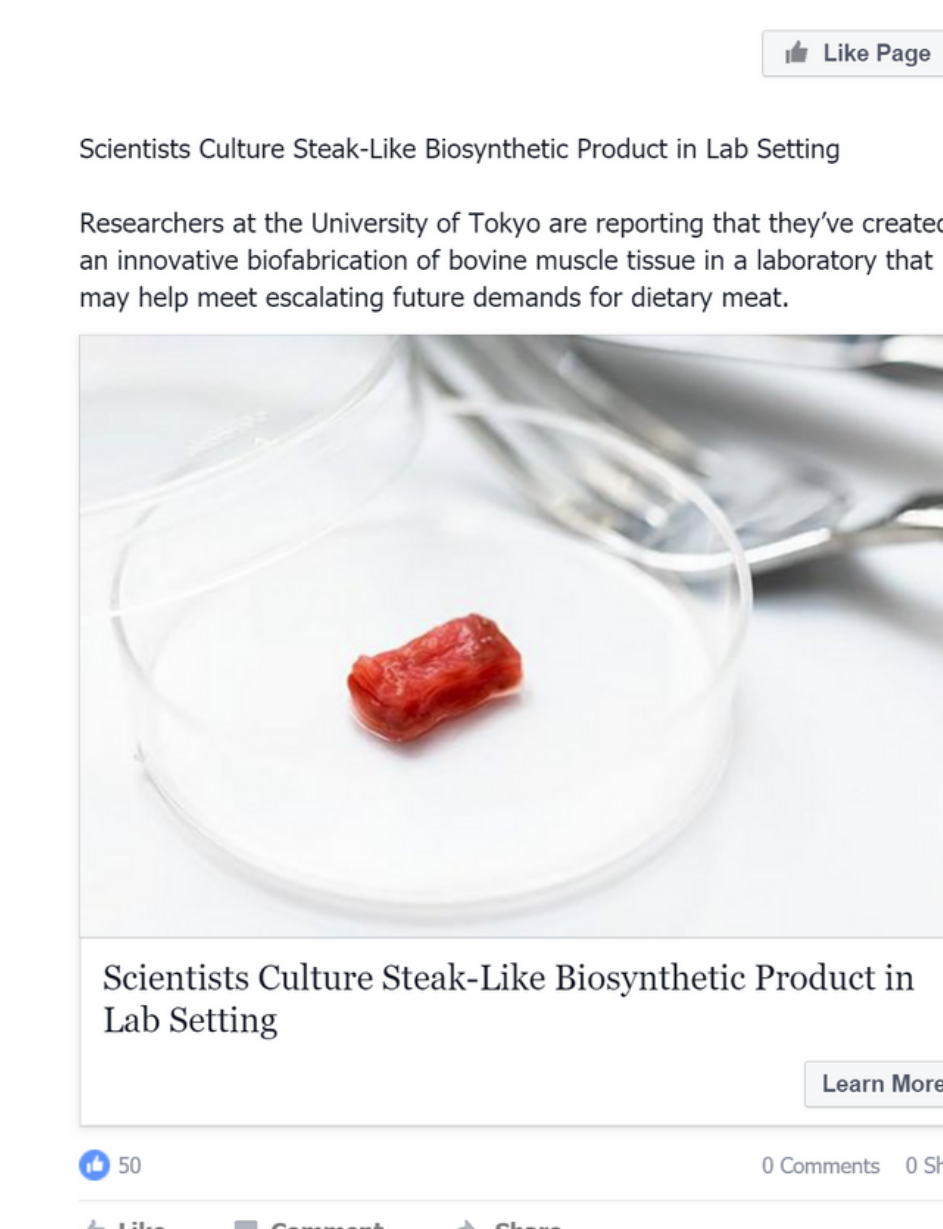
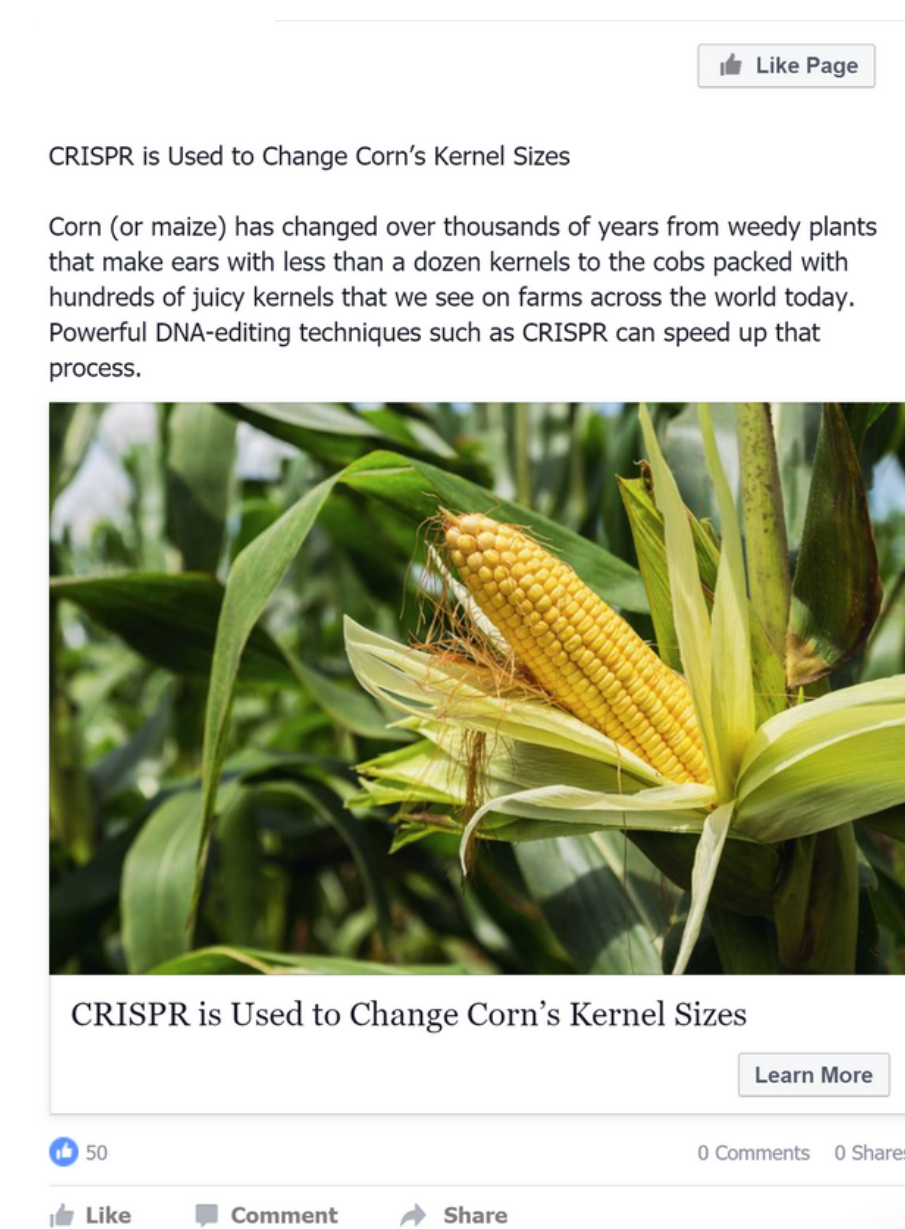
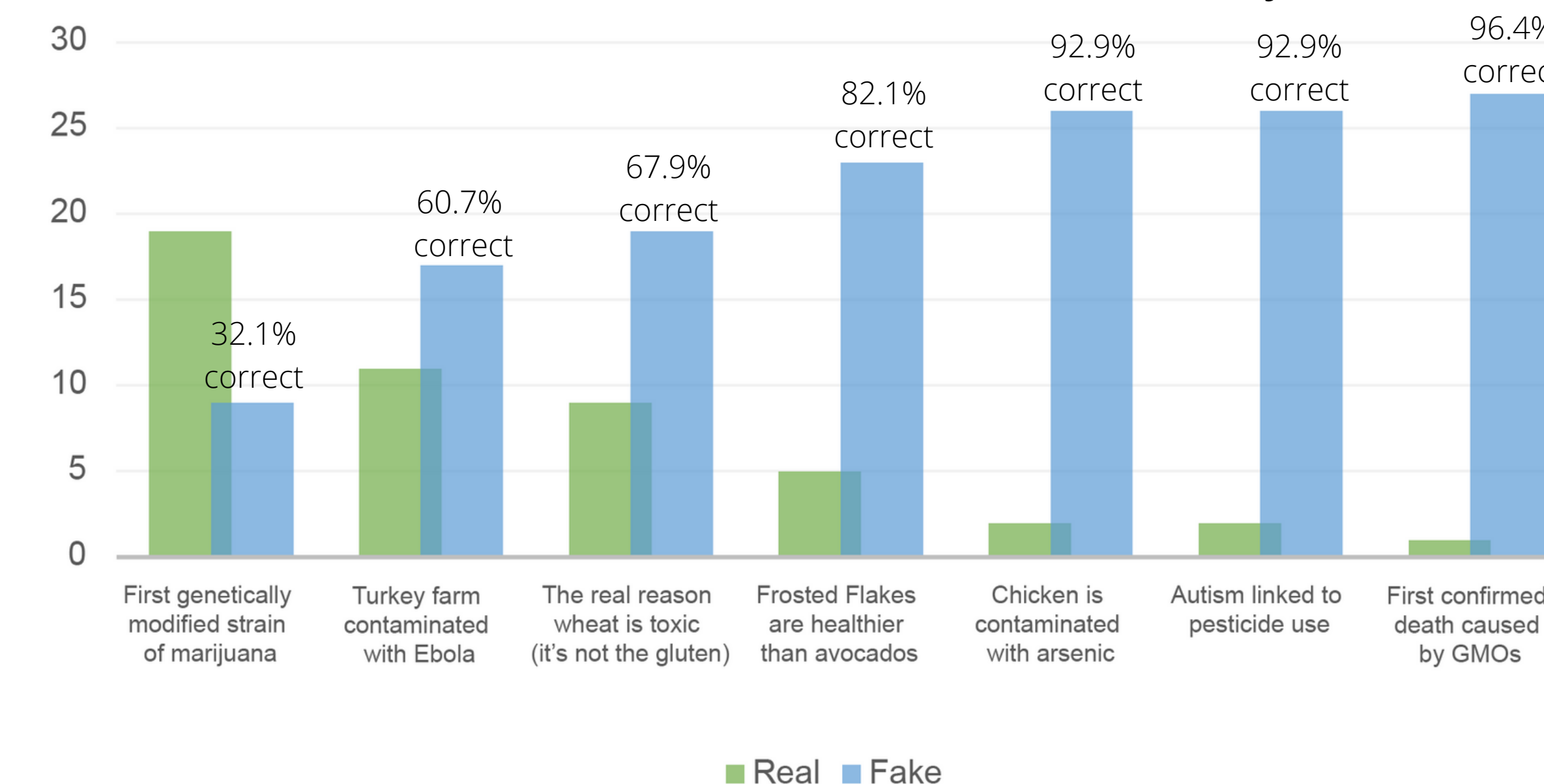
Results

Real news posts were correctly identified by participants an average of 57.1% of the time, and fake news posts were correctly identified an average of 75% of the time.

Identification of Real News Posts (f)



Identification of Fake News Posts (f)



Methodology

- We evaluated college students’ abilities to correctly identify fake news stories using Qualtrics.
- 28 graduate students in the Department of Agricultural Education and Communications at Texas Tech University served as our sample.
- 14 mock Facebook posts with a picture, headline, and brief story were created.
- Participants were shown all 14 mock social media posts and were asked to identify if the post contained real or fake news.
- Data were analyzed via descriptive statistics including frequencies and percentages using SPSS 26.

Conclusions and Recommendations

- None of the posts were 100% correctly identified.
- If participants with an agricultural background are unable to identify fake news, how can we expect people without experience in agriculture to do so?
- Because critical thinking plays such an important role in identifying fake news (Pilgrim et al., 2019), it may be worth considering how it can be better taught in the classroom.
- Future research may find it beneficial to compare the respondents’ involvement with agriculture to their proficiency in identification of agricultural fake news.
- Recommendations for educators include placing more emphasis on evaluating news and media in the classroom and teaching students best practices for fact checking information.