Appendix A: List of articles included in final analysis

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11. Smith, C. N., & Seitz, H. H. (2019). Correcting misinformation about neuroscience via social media. *Science Communication, 41*(6), 790-819. https://doi-org/10.1177/1075547019890073
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Appendix B: Demographic information reported about the audiences or samples in the articles analyzed. Information labeled "NA" was not available in the publication

	Paper	*Social Media Platform*	*Age (Years)*	*Gender*	*Country*	*Topic*	*Experimental Design (Y/N)*	*Data Collection*	*Data Analysis*	*Formal/Free Choice*
1	James et al., 2013	Twitter, Facebook, & YouTube	19-40	F (92%), M (8%)	U.S.	Health	Y	Online engagement, oral questionnaire, control group	Mixed methods	Free choice
2	Mou & Lin, 2014	Weibo	Mean 28.71	F (54%), M (46%)	China	Health	Y	Self-report online questionnaire	Quantitative	Free choice
3	Greenhow & Lewin, 2016	Facebook	16-25	NA	U.S.	Environment	N	Self-report online questionnaire, focus group, individual interview, online statistics and engagement	None	Free choice
4	Rap & Blonder, 2016	Facebook	16-18	NA	Israel	Chemistry	N	Observation	QCA	Free choice
5	Dohn & Dohn, 2017	Facebook	16-18	F (83%), M (17%)	Denmark	Biology	Y	Observation, individual interview, group interview, written questionnaire, case study	Mixed methods	Formal
6	Lessard et al., 2017	Twitter, Instagram, Facebook, & YouTube	NA	NA	Australia and Scotland	Entomology	N	Online engagement, case study		Free choice
7	Hargittai et al., 2018	Twitter & Facebook	Mean 25.3	F (60%), M (40%)	U.S.	General science	N	Written questionnaire	QCA	Free choice
8	Xu et al., 2018	Weibo	NA	NA	NA	Health	N	Online engagement	QCA	Free choice
9	Ali et al., 2019	Facebook	NA	NA	NA	Health	N	Online engagement	Quantitative	Free choice
10	Finkler et al., 2019	Facebook, Twitter	12% aged 18-25	F (70%), M (30%)	United States, New Zealand, Australia, Canada, U.K.	Biology	Y	Self-report online questionnaire, control group	Quantitative	Free choice

11	Smith & Seitz, 2019	Facebook	Mean 37	F (48%), M (52%)	U.S.	Neuroscience	Y	Self-report online questionnaire, control group, pre/post	Quantitative	Free choice
12	Michalovich & Hershkovitz, 2020	YouTube	18-82	F (37% in control group, 27% in experimental group), M (63%, 73%)	NA	Health	Y	Self-report online questionnaire	Quantitative	Free choice
13	Yeo et al., 2020	Twitter	Quota sample matching the 2013 US Census American Community Survey	Quota sample matching the 2013 US Census American Community Survey	U.S.	Physics	Y	Self-report online questionnaire	Quantitative	Free choice
14	Bode et al., 2021	Twitter	Mean 36	F (50%), M (50%)	U.S.	Health	Y	Self-report online questionnaire, pre/post	Quantitative	Free choice
15	Gopalkrishnan & Galande, 2021	Referred to social media use in general	18-22	F (69%)	India	General science	N	Written questionnaire	Quantitative	Formal
16	König & Breves, 2021	Twitter	Mean 26	F (62%), M (37%), other (1%)	Germany	Health	Y	Self-report online questionnaire	Quantitative	Free choice
17	Ruzi et al., 2021	YouTube	18-87	F (65%), M (35%)	U.S.	Entomology	Y	Self-report online questionnaire	Quantitative	Free choice
18	Serpagli & Mensah, 2021	Instagram	13-17	F (100%)	U.S.	Biology	Y	Observation, self-report online questionnaire, focus group, individual interview, online engagement	Thematic analysis	Free choice
19	Stamer et al., 2021	Studied videos featuring scientists in a classroom context	15-19	F (53%), M (47%)	Germany	General science	Y	Self-report online questionnaire, control group, pre/post	Quantitative	Formal

20	Yeo et al., 2021	Twitter	Quota sample matching the 2013 US Census American Community Survey	Quota sample matching the 2013 US Census American Community Survey	U.S.	NA	Y	Self-report online questionnaire	Quantitative	Free choice
21	Belova et al., 2022	Instagram	14-19	NA	Germany	Health	Y	Online group interview and think-aloud protocol	Mixed methods	Free choice
22	Bermúdez-García, 2022	Twitter & Instagram	18-44	NA	NA	Thermal Imaging	N	Online engagement, self-report online questionnaire, feedback session, open-ended observation forms	None	Free choice
23	Fortner et al., 2022	Twitter	Millennial	NA	U.S.	Environment	Y	Online engagement, observation	Quantitative	Free choice
24	Kulgemeyer et al., 2022	Compared videos to text in a classroom context	University students	F (88%), M (12%)	Germany	Physics	Y	Observation, self-report online questionnaire, exam grade, pre/post	Quantitative	Formal
25	Lundgren et al., 2022	Twitter & Facebook	18-65	F (50%), M (50%)	U.S.	Paleontology	N	Online engagement	Mixed methods	Free choice
26	Shriver-Rice et al., 2022	YouTube	18 - 10%, 19 - 38%, 20 - 10%, 21 - 21%, 21+ - 13%	F (72%), M (28%)	U.S.	Environment	Y	Self-report online questionnaire, focus group	Mixed methods	Free choice
27	Wang et al., 2022	YouTube	4% under 24	F (20%), M (80%)	Mostly U.S., Mexico, Indonesia, Turkey, and Greece	Geology	Y	Online engagement	Quantitative	Free choice
28	Yuan & Lu, 2022	YouTube	Part 1: mean 38; Part 2: mean 35	F (50%), M (48%)	U.S.	Health & Environment	Y	Self-report online questionnaire, control group	Quantitative	Free choice

29	Zhang & Lu, 2022	Twitter	Mean 37.6	F (42%), M (55%)	U.S.	Health	Y	Self-report online questionnaire, control group, pre/post	Quantitative	Free choice
30	Agley et al., 2023	Referred to an unbranded social media sample	Representative sample	F (52%), M (48%)	U.S.	Health	Y	Self-report online questionnaire, control group	Quantitative	Free choice
31	Belova & Krause, 2023	Instagram	16-18	NA	Germany	Chemistry	Y	Observation, control group, feedback session	QCA	Formal
32	Fischer et al., 2023	Twitter & YouTube	Mean 24	F (47%), M (53%)	U.S.	Environment	N	Self-report online questionnaire	Mixed methods	Free choice
33	Oh et al., 2023	TikTok	17-29	F (71%), M (28%)	U.S.	Health	N	Self-report online questionnaire, pre/post	Quantitative	Free choice
34	Yeo et al., 2023	Twitter	Mean 46	F (46%), M (54%)	U.S.	Environment, Biology, & Technology	Y	Self-report online questionnaire, pre/post	Quantitative	Free choice
35	Kresin et al., 2024	Twitter, Instagram, YouTube, TikTok, & Snapchat	14-16	F (57%), M (38%), nonbinary (5%)	Germany	Environment	Y	Focus group, individual interview	Mixed methods	Free choice

Appendix C: Summary of the results. Impacts desired, measured, and observed are colored according to the colors assigned in Table 1. Observed outcomes are further noted as increase (+), decrease (-), or not significant (n.s.)

	Paper	*Research Questions or Objectives*	*Desired Impact*	*Measured Impact*	*Observed Impact (+, -, n.s.)*	*Observed outcome*
1	James et al., 2013	Examine whether a food safety campaign reached the intended audience and initiated behavior change for appropriate food safety practices related to leftovers.	Action	Action	Action (+)	After exposure to the social media campaign, more people implemented food safety behaviors
			Valuing science	Not reported	Not reported	
			Knowledge	Knowledge	Not reported	
			Awareness	Awareness	Awareness (+)	Community was "significantly more aware" of a food safety campaign when it was advertised on social media
2	Mou & Lin, 2014	1. Is Weibo use positively related to food safety preventive action? 2. Are demographic characteristics, media use, Weibo use frequency, and food safety cognition factors positively interrelated?	Action	Action	Action (+)	"Weibo use frequency also had a significant albeit weak impact on food safety prevention action"
			Not reported	Emotional	Emotional (+)	"Weibo users who were more aware of food safety incidents and had greater factual awareness also reported stronger negative food safety–related emotions"
			Knowledge	Knowledge	Knowledge (+)	"More frequent Weibo users who were younger, more affluent, and better educated were also more aware of the food safety incidents and perceived themselves as having greater factual awareness of food safety knowledge"
			Awareness	Awareness	Awareness (+)	""
3	Greenhow & Lewin, 2016	Explore young people's voluntary use of a Facebook (FB) application for knowledge sharing about environmental science issues and engagement in related civic actions	Action	Action	Action (+)	"Increase in…pro environmental behaviours during involvement with Facebook"
			Interaction	Interaction	Interaction (+)	"Young people were intentional in seeking to interact with like-minded people and contribute, as well as consider, others' ideas about a shared interest"
			Not reported	Not reported	Interest (+)	"Seeing, in their news feed, how others were making a difference…catalysed their latent interest in also making a difference"
			Knowledge	Knowledge	Not reported	
			Not reported	Not reported	Awareness (+)	"Seeing others…perform civic actions sparked people's intention and awareness of how they, too, could contribute"

4	Rap & Blonder, 2016	1. What type of interactions occur in a chemistry learning Facebook group (CLFG)? 2. How can the learning that takes place in a CLFG be characterized?	Interaction	Interaction	Interaction (+)	Social discourse observed in 20.5% of posts in a Facebook group; learning discourse between students or with teacher in 22.3%
			Knowledge	Knowledge	Knowledge (+)	Learning interactions observed in 22% of the posts
5	Dohn & Dohn, 2017	1. How are the situational interests of upper secondary students maintained by collaborating on Facebook in a biology course? 2. What are the affordances and constraints for students' participation in learning communication on Facebook?	Interaction	Interaction	Interaction (+)	"Students posted voluntarily after school in addition to the mandatory postings made in class..."
			Not reported	Valuing social media	Valuing social media (+/-)	"The affordances of Facebook as a platform for learning are high, both technologically and in terms of familiarity of use, but distractions are many"
			Interest	Interest	Interest (n.s.)	"Many of the students found the idea of using Facebook in biology stimulating"
6	Lessard et al., 2017	Provide insight into the use of various social media platforms to promote engagement of research or museum collections	Interaction	Not reported	Interaction (+)	"Research collections, museums or their staff can positively influence online conversations...using social media"
			Valuing science	Not reported	Valuing science (+)	"Social media can be a useful means for engaging a wider online audience to promote the importance of entomological collections and natural history museums"
			Valuing social media	Not reported	Valuing social media (+)	""
			Interest	Not reported	Interest (+)	Entertainment type posts were more engaging than promotional or educational posts
			Not reported	Not reported	Knowledge (+)	The staff "could make immediate public statements on social media to correct public misconceptions about insects"
			Awareness	Not reported	Awareness (+)	Video campaign considered "successful in promoting collections and their research outcomes"
7	Hargittai et al., 2018	1. To what extent do young adults use the Internet for science and research content as compared to other content? 2. How does online engagement through clicking and commenting on content about science and research compare to engaging similarly with other types of content? 3. How does sharing science and research content on social media compare to similar engagement with other topics?	Interaction	Interaction	Interaction (+)	"The group of young adults we studied widely uses the features provided by social media to engage with such content"
			Knowledge	Not reported	Knowledge (+)	"Social media are an important site for engagement with science and research among young adults rivaling such content as health and fitness but also entertainment and celebrity news"

8	Xu et al., 2018	1. How do opinion leaders' source attributes, including account type, account verification, and media type, influence user engagement (i.e., like, comment, and repost) in the discourse of GMO on Weibo? 2. How do message frames, including fact/opinion, risk/opportunity, valence of attitude, and geographic focus, adopted by opinion leaders influence user engagement (i.e., like, comment, and repost) in the discourse of GMO on Weibo?	Interaction	Interaction	Interaction (+/-)	"Users were more likely to comment on GMO posts if they mentioned science opportunities and health opportunities. But when GMO posts mentioned health risks or food-quality opportunities, users were less likely to comment"
			Not reported	Not reported	Trust in science (+)	"Users were more likely to repost the GMO posts from opinion leaders if they contained only fact(s)"
			Trust in scientists	Not reported	Trust in scientists (+/-)	"The perceived authority and credibility of the source influenced credibility perception of message"
			Interest	Interest	Interest (+)	"Users were more inclined to like a post if it mentioned health opportunities or the risks associated with lack of management. They were less inclined to like a post if it referred to health risks or national security risks associated with GMO"
9	Ali et al., 2019	Will there be a difference between nonnews sources in terms of the level of fear-arousing sensationalism in their Zika-related Facebook posts?	Interaction	Interaction	Interaction (+/n.s.)	"Increasing levels of fear-arousing sensationalism increases engagement in terms of reactions, comments, and shares, but only to an extent—when the level of fear-arousing sensationalism was high, there was no significant difference in these engagement behaviors compared with the moderate level"
			Interest	Interest	Interest (+)	"Increasing levels of fear-arousing sensationalism increases engagement in terms of reactions, comments, and shares, but only to an extent—when the level of fear-arousing sensationalism was high, there was no significant difference in these engagement behaviors compared with the moderate level"
10	Finkler et al., 2019	The research is used to: (I) produce an original visual research element, the *Good Whale Watching SciCommerical* video, and (ii) evaluate the video as a potential educational management tool for the whale watching industry.	Not reported	Interest	Interest (n.s.)	"The video did not deter people from wanting to go whale watching and had successfully framed good whale watching rather than portraying whale watching as a negative activity that should be stopped"
			Knowledge	Knowledge	Knowledge (+)	"These findings highlight the potential of well-developed science communication videos to engage and influence an audience…and move them towards responsible whale watching consumer choice behaviors by managing visitor expectations in regard to satisfaction and proximity to whales"
			Awareness	Not reported	Awareness (+)	""

11	Smith & Seitz, 2019	Aims to assess how exposure to correcting related articles vs confirming, mixed, or unrelated articles about a neuromyth changes neuroscience beliefs.	Not reported	Trust in science	Not reported	
			Not reported	Interest	Not reported	
			Knowledge	Knowledge	Knowledge (+)	"Presenting myth-correcting related articles immediately after exposure to misinformation (neuromyths) can reduce belief in the myth"
12	Michalovich & Hershkovitz, 2020	1. What is the role of perceived video quality, video popularity, perceived source and user background in the credibility assessment of a science news video? 2. How does searching for further information during the task impact that role?	Trust in science	Trust in science	Trust in science (+)	Younger participants, higher perceived video quality, and higher participant YouTube activity correlated with higher perceived credibility
13	Yeo et al., 2020	Do different types of humor (anthropomorphism, wordplay, and combined) present in a science message on Twitter influence perceived humor, or mirth, among viewers?	Interest	Interest	Interest (+)	"Significant, positive relationship between mirth and intentions to engage"
			Emotional	Emotional	Emotional (+)	"Humor types, relative to no humor, caused respondents to experience greater mirth"
14	Bode et al., 2021	1. How do all hypothesized relationships depend on the level of initial misperceptions? 2. How will the act of correcting misinformation affect perceptions of the organization's credibility? 3. How will the presence of a social media engagement cue ("likes") affect (a) perceptions of the scientific consensus, (b) GMF misperceptions, (c) GMF avoidance behaviors, and (d) credibility perceptions of the organization?	Action	Action	Action (+)	"Updating perceptions of scientific consensus on the issue has gateway effects on misperceptions about GMF in general, as well as behaviors related to buying and consuming them"
			Trust in scientists	Trust in scientists	Trust in scientists (+)	"Those with low misperceptions to start (for whom the correction is congruent) increase their opinions of the organization, without a backfire effect among those with higher misperceptions (for whom the correction runs opposite their beliefs)"
			Knowledge	Knowledge	Knowledge (+)	"A correction from Pew Research Center, which highlighted the scientific consensus on the issue of GMF for human consumption, was effective at reducing misperceptions regarding the scientific consensus surrounding the safety of consuming GMF"
15	Gopalkrishnan & Galande, 2021	1. Understand the level of scientific temper among the millennials (Gen Z). 2. Find the difference between students with science and non-science background in school with respect to scientific temper. 3. Study the contextual understanding toward scientific temper and the consumption of peer oriented social media and instant messenger apps	Action	Action	Not reported	
			Not reported	Not reported	Trust in science (n.s.)	"Millennials...have high scientific temper irrespective of their...consumption of news, social media or instant messenger apps"
			Emotional	Emotional	Not reported	
			Knowledge	Knowledge	Not reported	

16	König & Breves, 2021	Investigate whether an information source's professional background (being a politician vs. being a scientist) and message style (tweeting in capital letters vs. tweeting in lower-case letters) influence the effectiveness of communicating COVID-19 health information via Twitter.	Action	Action	Action (n.s.)	"Professional background [scientist vs. politician] did not influence…participants' intention to read his health information and share it via social media"
			Trust in science	Trust in science	Trust in science (+)	"Health information was perceived as being more credible"
			Trust in scientists	Trust in scientists	Trust in scientists (n.s.)	"Professional background did not influence [the scientist's] likability [or] the credibility of health information", "Scientists were perceived as possessing more expertise [but less integrity and benevolence] than politicians"
17	Ruzi et al., 2021	How does viewing a video in which the scientist presents their own research material influence audience perception of the trustworthiness of the spokesperson and video content? Is there a difference in perception of the competence of scientists in general across treatments?	Trust in science	Trust in science	Not reported	
			Trust in scientists	Trust in scientists	Trust in scientists (+)	"Scientists presenting their own work on-screen can positively influence short-term objectives related to spokesperson trust and expertise"
			Valuing science	Valuing science	Valuing science (n.s.)	"Treatment did not have a significant effect on attitudes towards natural history and museum collections research or funding"
			Emotional	Emotional	Emotional (n.s.)	"Treatment did not have a significant effect on stimulus enjoyment"
18	Serpagli & Mensah, 2021	How does the implementation of Instagram as a social media tool engage student learning in an all-female, secondary biology classroom?	Interaction	Interaction	Interaction (+)	"The girls were communicating with their teacher outside of school through the social media platform"
			Valuing social media	Valuing social media	Valuing social media (+)	"Positive response to the use of Instagram in the science classroom"
			Interest	Interest	Interest (+)	"Instagram was a useful way for students…to connect to classroom content"
			Knowledge	Knowledge	Knowledge (+)	"Instagram engaged students in the learning process more easily"
19	Stamer et al., 2021	1. To what extent do the videos influence students' perceptions of authenticity? 2. To what extent does insight into science via videos change the students' perceptions of scientists' activities?	Trust in scientists	Trust in scientists	Trust in scientists (+)	"Stereotypical notions could be…diversified using videos"
			Knowledge	Knowledge	Knowledge (+)	"We verified the use of authentic video clips as an appealing alternative to other forms of instructions…to teach scientific aspects and to give insights into the regular work of scientists"

20	Yeo et al., 2021	Is the effect of the (a) anthropomorphism, (b) wordplay, and (c) combined conditions, relative to that of no humor, on individuals' motivation to follow more science on social media moderated by factual knowledge and mediated, serially, by mirth and likability?	Interest	Interest	Interest (+)	"Respondents who experienced more mirth had higher motivation to follow more science on social media"
			Emotional	Emotional	Emotional (+)	"Mirth also positively predicted perceived likability"
21	Belova et al., 2022	1. Which strategies do adolescents use when dealing with science-based claims in social media, namely Instagram? 2. To which extent do they recognize specific manipulation techniques which can also be related to science?	Trust in science	Trust in science	Trust in science (+)	"Younger students…assessed [posts] more positively and uncritically than the other older participants"
			Not reported	Valuing social media	Valuing social media (+)	Students mostly agreed that "social media should play a greater role in science class"
			Not reported	Knowledge	Knowledge (+)	"Students were more successful in applying general media literacy and IT literacy-related strategies"
22	Bermúdez-García, 2022	Assess how a social media account about thermal imaging impacts general public education and introduce to the scientific community an innovative method of communicating science using thermal imaging on social media.	Not reported	Valuing science	Valuing science (+)	"Most participants agreed that thermal cameras are important in our society"
			Valuing social media	Not reported	Valuing social media (+)	"This…demonstrate[s] the usefulness of this channel…for science communicators, educators and learners"
			Not reported	Not reported	Interest (+)	"The majority is interested in the combination of thermal imaging with scientific explanations"
23	Fortner et al., 2022	1. Describe public level of engagement with agricultural science communication on Twitter. 2. Describe the differences in engagement when perceived gender, race, and age of the researcher are emphasized in agricultural science communication.	Interaction	Interaction	Interaction (+/-)	Tweets about or from females and younger scientists had higher engagement rates; Tweets from White researchers had higher engagement rates but fewer likes and URL clicks
24	Kulgemeyer et al., 2022	1. Do explainer videos foster declarative knowledge when compared to textbook-like written explanations? 2. Do explainer videos foster an illusion of understanding when compared to textbook-like written explanations?	Knowledge	Knowledge	Knowledge (n.s.)	"Video was explicitly not the superior medium in terms of achievement"
25	Lundgren et al., 2022	1. Which elements, when included as part of a social media message, led to interaction within an informal science education community? 2. Which forms of paleontological practice, when illustrated via social media messages, led to interaction within an informal science education community? 3. How are the message-specific interactions of an informal science education community influenced by the social media environment?	Interaction	Interaction	Interaction (+)	"Facebook [users] interacted with posts that were of general usage to them"
			Not reported	Not reported	Interest (+)	"Increased interaction with information posts…indicates that…members were interested in posts that highlight paleontological constructs with which they have familiarity"
			Awareness	Not reported	Not reported	

26	Shriver-Rice et al., 2022	Understand how college students respond to the four generic types of short-form environmental video identified above and explore how different stylistic practices, such as mode of address and musical score, influence viewer reception	Trust in science	Trust in science	Trust in science (+)	"The direct and hopeful genres were rated as the most truthful"
			Not reported	Not reported	Trust in scientists (+)	"Videos from known scientific sources…increase credibility"
			Not reported	Not reported	Interest (+)	"The two types that were found to be the most effective (compelling, truthful, persuasive) were the hopeful and fearful modes of engagement"
			Emotional	Emotional	Emotional (+)	"More emotionally engaging forms of messaging are more persuasive compared to more cognitive modes"
			Knowledge	Knowledge	Not reported	
27	Wang et al., 2022	1. Would videos posted on YouTube about Earth events and processes also stimulate the public to be more interested in these? 2. Are YouTube users more interested in timely event-based geoscience educational videos (herein referred to as "GeoEd videos") relative to videos that are unrelated to recent events in the news?	Not reported	Interaction	Interaction (+/-)	Meaningful dialogue occurred more often with Geonews videos than with general GeoEd videos
			Not reported	Trust in science	Not reported	
			Interest	Interest	Interest (+)	Geonews videos engage "younger and more diverse" YouTube audiences than general GeoEd videos"
			Not reported	Emotional	Not reported	
28	Yuan & Lu, 2022	Compared to a neutral video, how does an aggressive humor video affect psychological reactance through perceived humorousness and aggressiveness of the video?	Action	Action	Action (+/-)	"Affiliative humor and aggressive humor led to weaker activism intentions when communicating about the childhood vaccine but such differences were not observed in conversations about climate change"
			Trust in science	Not reported	Trust in science (-)	"When individuals perceived the message as funny, they took it less seriously and discounted the message to some extent"
			Emotional	Emotional	Emotional (+, n.s.)	"In both studies, perceived aggressiveness led to greater psychological reactance. However, perceived humorousness was unrelated to psychological reactance"
29	Zhang & Lu, 2022	1. How will superiority moderate the relationship between humor type and (a) expectancy violation, (b) tweet engagement, and (c) attitudes toward mRNA Covid-19 vaccines? 2. Will expectancy violation explain the moderating effects of superiority on the relationship between humor styles and (a) tweet engagement and (b) attitudes toward mRNA Covid-19 vaccines?	Trust in science	Trust in science	Trust in science (+)	"As an individual's superiority levels increased, their perceived expectancy violation decreased. Subsequently, they expressed…more positive attitudes toward the vaccines"
			Interest	Interest	Interest (+)	"Those who were low in superiority did not like to engage with either of the two types of humorous tweets"
			Emotional	Emotional	Emotional (+)	"Satire increased expectancy violation, as individuals may not expect scientists to communicate in such an aggressive and judgmental manner"

30	Agley et al., 2023	Understand the degree to which the use of cognitive and normative language by scientists influences perceptions of trust and credibility	Trust in science	Trust in science	Trust in science (n.s.)	No difference in trust in science and scientists between two groups [one shown normative and one shown cognitive claims]
			Trust in scientists	Trust in scientists	Trust in scientists (n.s.)	""
31	Belova & Krause, 2023	Demonstrate the strategies used to assess credibility of science in social media posts and identify misleading content.	Trust in science	Trust in science	Trust in science (+)	Design and graphs increased perceived credibility
			Trust in scientists	Trust in scientists	Not reported	
			Not reported	Interest	Interest (+)	"Class participation was higher than usual"
			Not reported	Not reported	Emotional (+)	Emotionalizing memes made posts seem credible
32	Fischer et al., 2023	1. What role does social media play in Generation Z's awareness of conservation issues? 2. Does social media spur any behavior change related to conservation amongst Generation Z?	Action	Action	Action (+)	"16% said the [conservation] stories led them to pro-environmental behavior"
			Not reported	Not reported	Valuing science (+)	"Most common change due to the [conservation] stories was emotional or a change in values"
			Not reported	Not reported	Emotional (+)	""
			Knowledge	Knowledge	Knowledge (+)	"40% said [the conservation story] increased their knowledge and awareness"
			Awareness	Awareness	Awareness (+)	""
33	Oh et al., 2023	Investigate how serious health messaging on TikTok can violate people's expectation of TikTok as a channel that has fun personality, and how this violation can be associated with their attitudes toward the health issues described in TikTok videos.	Action	Action	Action (+, n.s.)	"Vaccination intentions [for those with higher fun perception on TikTok] were not significantly influenced by video seriousness. In contrast, the effect of video seriousness on vaccine intentions was prominent for those who initially held negative attitudes toward vaccines"
			Trust in science	Trust in science	Trust in science (+)	"Those who had a higher perception of TikTok as a fun channel perceived the serious videos to be more effective"
			Emotional	Emotional	Emotional (+)	"The authentic, serious vaccination messages on TikTok provided a positively valenced surprise to those who haven't thought of the vaccination issues deeply"

34	Yeo et al., 2023	1. How do various types of humor present in a Twitter conversation about (a) global warming, (b) artificial intelligence, and (c) microbiomes affect levels of mirth among respondents? 2. Does experienced mirth mediate the relationship between humor types and intentions to engage with the Twitter conversation about (a) global warming, (b) artificial intelligence, and (c) microbiomes?	Interest	Interest	Interest (+)	"Respondents who reported greater mirth also had higher intentions to engage with the Twitter conversation"
			Emotional	Emotional	Emotional (+/n.s.)	"Humor types resulted in significant differences in experienced mirth in microbiomes and AI posts but not global warming"
35	Kresin et al., 2024	1. Which criteria (who, what, how) do students include in their credibility evaluation of information on climate change on social media? 2. How do these criteria contribute to the heuristic's usability for climate change-related social media contexts and student users?	Trust in science	Trust in science	Trust in science (n/a)	"Content-related credibility criteria were context, coherence, and the inclusion of facts"
			Trust in scientists	Trust in scientists	Trust in scientists (n/a)	"Students pay attention to the...credibility criteria: scientific account, academic title, further content, content consistent account name, verified account, no self-advertisement, and familiarity"