Do Sound Bites Impact Students' Perceptions of Credibility of Podcasts?
An Experimental Analysis

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Abstract
Due to their relatively low price and appeal, podcasts are commonly used in educational contexts (e.g., Cho et al., 2017). A common structural element of podcasts is the use of *sound bites*, which are excerpts of longer pieces of outside media (e.g., interviews). A main indicator of quality upon which students judge podcast material is *credibility*, or the degree to which the content is trustworthy (Lin et al., 2014). One potential pathway to credibility is through including multiple perspectives, which may be accomplished through the use of podcast soundbites. Thus, the question arises: *Do podcast sound bites impact students' perceptions of credibility?* This paper explores this question using an experimental design. Participants first listened to a podcast and were randomly assigned to one of three groups: (1) Long sound bites, (2) Short soundbites, and (3) No sound bites. Immediately following the podcast, participants responded to survey items pertaining to credibility. Results revealed no differences in credibility perception. We discuss these results in light of their implications for research and application in educational contexts.

Keywords: Podcasts, Sound Bites, Credibility

Introduction

Podcasts are a popular form of media among young adults (Bratcher, 2022), and due to their relatively low price and appeal, podcasts are commonly used in educational contexts (e.g., Cho et al., 2017). These pieces of media can "turbocharge" unit areas across disciplines (Williams, 2007, p. 45). While the effects of podcasts in educational contexts has been examined, little-to-no research examines the effects of a common structural element of podcasts: s*ound bites*, which are excerpts of longer pieces of outside media (e.g., interviews).

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Because podcasts are an increasingly popular tool used in teaching and learning (Newman et al., 2021), it becomes important to examine how they may impact students' perceptions of credibility, which may ultimately lead to a host of positive educational outcomes. In the current study, we examine how the use of a less examined element of podcasts, sound bites, influence students' perceptions of credibility.

This paper explores this question using a between-groups experimental design centered around the following question: *Do podcast sound bites impact students' perceptions of credibility?* Participants first listened to a podcast and were randomly assigned to one of three groups: (1) Long sound bites, (2) Short soundbites, and (3) No sound bites. Immediately following the podcast, participants responded to survey items pertaining to credibility. The following sections provide a brief explication of our key constructs: Credibility and sound bites.

Credibility of Podcasts

Credibility is a term used to describe the perception of a receiver regarding the believability of an information source (O'Keefe, 2016). Two dimensions of credibility exist: Expertise and trustworthiness. While the expertise dimension captures whether or not a receiver believes the source to understand the truth, the trustworthy dimension focuses on whether a receiver believes that a source will in fact be truthful (O'Keefe, 2016).

While perceptions of credibility lie in the mind of the receiver, sources may modify messages in specific ways that may enhance (or diminish) credibility. Various messages, including those that mention one's expertise in an area (e.g., education level) and conveyance of specific nonverbal behaviors (e.g., eye contact) are examples of how a source may attempt to influence their credibility perceptions (O'Keefe, 2016). Often overlooked, however, is how the sources that one uses in a message may go on to influence perceptions of credibility.

Within this area, evidence does suggest that including multiple sources may be a means to enhance perceptions of credibility, which some have labeled a "reliability approach" (Lankes, 2008, p. 678). Thus, by presenting evidence from a multitude of sources, individuals may perceive a piece of media to be more credible compared to a piece of media that features fewer sources.

In light of the aforementioned evidence, it stands to reason, then, that podcast soundbites may have the ability to impact the perceived credibility of the overall podcast. By including multiple sources through interview excepts that take the form of sound bites, audiences may perceive the information to be more credible. In an educational context, then, the question arises: How might podcast sound bites influence students' credibility perceptions of the overall podcast? The current study explores this question. To better understand this question, and to frame the current study, we now turn our attention to research on sound bites.

The Use of Sound Bites in News Media

To date, there is little-to-no research regarding the use of sound bites in podcasts in educational contexts. However, research on traditional forms of media, such as television, provides us with a general framework for understanding the use of sound bites, and how their use may differentially impact perceptual-level variables.

A sound bite is an excerpt of a longer piece of outside media that is contained within a media product. Often, sound bites take the form of interview excerpts, but may include other pieces of media including, but not limited to, excerpts from speeches or television shows. Regardless of type, however, the purpose of the soundbite is to convey information directly from sources.

The television news industry, driven by competition and the desire to create a well-informed public, strives to provide audiences with the most amount of information in a short time frame. One common way to do this is by incorporating sound bites into a media product.

While sound bites may provide audiences with multiple perspectives on an issue, they may also hinder the audiences' ability to fully comprehend public issues. Research demonstrates that at least within the context of television news, interview sound bites prevent a full summary of given issues. The result is that the information presented becomes fragmented (Rinke, 2016; Bennett, 2009; Lichter, 2001). These conflicting possibilities raise questions regarding perceived credibility of podcasts. Thus, the following question arises:

> RQ1: Does the inclusion of sound bites in podcasts impact students' perceived credibility of the podcast?

Methodology

One hundred thirty-two undergraduate students completed this between-groups experiment. Participants came from a mid-size public university in the northeast and were on average years of an age (*SD* = 1.30). The majority of our sample was female (*N* = 84), and White (*N* = 117).

A between-groups experimental design tested the effects of sound bites on perceptions of credibility. Participants brought headphones and a lap top or tablet to the lab. They then were provided with a link to a survey. Upon entering the survey, participants were randomly assigned to condition: (1) No soundbites, (2) Short soundbites (i.e., 10 seconds), and (3) Long soundbites (i.e., 30 seconds). We used varying lengths of interview excerpts for each condition. After random assignment, participants listened to a podcast consistent with their condition.

Our experimental stimuli were a recording of an eight-minute news broadcast from an Iowa public news station. Covered in the podcast were a host of issues including issues pertaining to COVID-19, politics, and economics.

After listening to the podcast, participants completed Appleman and Sundar's (2016) credibility scale, which used ten items to measure credibility. These items used a series of adjectives (e.g., objective, well-presented) rated on seven-point Likert type response scales ranging from *describes very poorly* to *describes very well*. These items were then averaged for each participant such that each participant had a single score ranging from one to seven that represented their perceived credibility of the podcast ($\alpha = .92$).

Results

Our research question asked if there would be differences participants' perceptions of credibility based on experimental condition. To examine this question, we first looked at the condition means. Participants in the no sound bites condition had an average credibility perception 4.91 (*SD* = 1.02, *N* = 42), while those in the short sound bites condition had an average of 4.75 (*SD* = 0.93, *N* = 45). The average scores for those in the long sound bite condition was 5.05 (*SD* = 1.13, *N* = 45).

We then conducted an Analysis of Variance (ANOVA) to determine if any meaningful differences existed between groups. The ANOVA did not detect a statistically significant difference among conditions, $F(2, 132) = 0.97$, $p = .38$. Thus, results indicated that participants did not perceive the podcast to be more or less credible based on sound bite condition.

Discussion and Conclusions

In the current study, we examined the effects of an often-overlooked feature of podcasts: Sound bites. We specifically examined how the length of sound bites in a podcast may influence students' overall perceptions of the credibility of that podcast. Our study was guided by the following research question: *Does the inclusion of sound bites in podcasts impact students' perceived credibility of the podcast?*

Informed by research on sound bites in news media and credibility, we examined whether the length and number of sources in a podcast influenced credibility perceptions. We randomly assigned participants to one of three conditions that featured different levels of sound bites (i.e., no sound bites, short sound bites, long sound bites). After listening to a podcast that matched their assigned condition, participants completed Appleman and Sundar's (2016) credibility scale. Higher scores on this scale represented more favorable perceptions of credibility.

Results of an ANOVA revealed that perceptions of credibility did not differ based on experimental condition. Therefore, our results indicated that sound bites did not have an impact on perceptions of credibility. While previous research (e.g., Lankes, 2008) would suggest that sound bite conditions, and specifically, the inclusion of multiple perspectives, would impact how credible students rated the information, we failed to find evidence for that possibility.

Our study was guided by a research question, as opposed to hypothesis, because conflicting research exists regarding the effects of sound bites on perceptions of credibility. As previously mentioned, work by Lankes (2008) suggests that the more sound bites in a podcast, the more credible audiences would perceive that podcast to be. On the other hand, Rinke (2016), Bennett (2009), and Lichter (2001) suggest that sound bites cause the overall message to become fragmented and as a result, they prohibit a full presentation of the issue at hand. Results of the current study suggest that findings from the later group of scholars holds true. These results also build on the work of others to demonstrate the effects that this may have on credibility.

Our findings may also be the result of methodological weaknesses. Our experimental stimuli, which featured news and information in Iowa, may have caused our sample (who was located in the Northeast section of the United States) to feel that the information was less relevant to them, which in turn biased the results. Future research should utilize podcasts that students view more consistent with their own goals and interests. Finally, of course it is possible that the effect size is smaller than anticipated and that we would need a larger sample size to detect an effect, should there be one present. We are currently in the process of collecting data from a separate sample to see if that is the case.

Research on sound bites in general, and the effects of sound bites on perceptions of credibility specifically, are quite limited. While there is still much work to do in this area, the present study does start to build a foundation for work examining the effects of podcasts and sound bites in educational contexts.

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