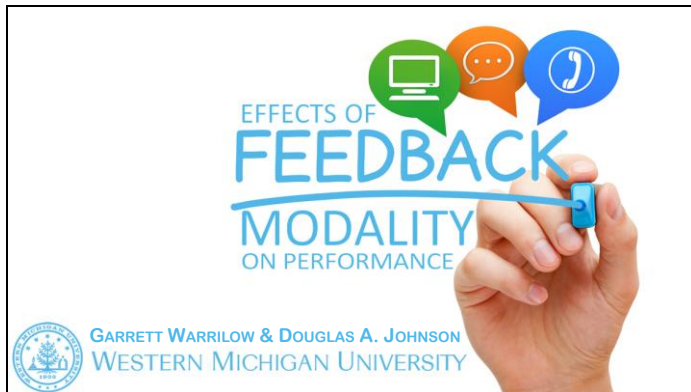


Slide 1

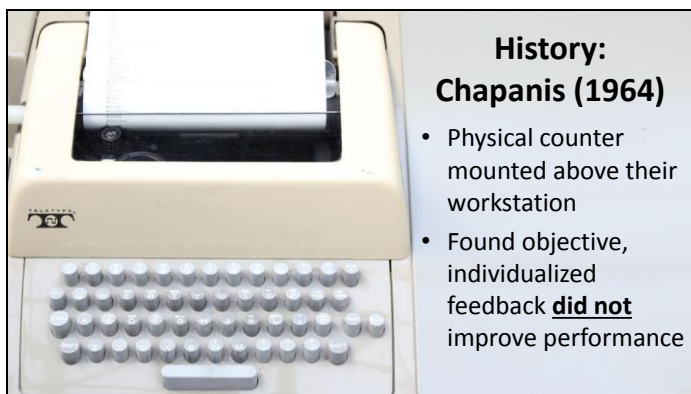


Slide 2



- Feedback has been the most frequently used independent variable in the Journal of Organizational Behavior Management across the first three decades of its publication
- Despite the volume of studies examining the effect of feedback, there is little consensus as to what variables are necessary for it to be effective (Alvero, Bucklin, & Austin 2001).
- Part of the issue may be that many previous studies have not differentiated the type and format of feedback used in the experiment.

Slide 3



- Chapanis (1964), participants spent hour-long sessions typing random digits into a teletype
- Participants in three conditions received objective and individualized feedback from a physical counter mounted above their workstation
- Chapanis found objective, individualized feedback **did not** improve performance in comparison to no feedback

Slide 4

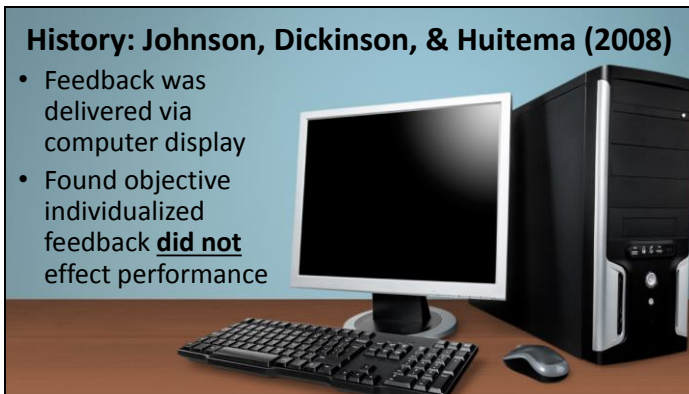


**History: Crowell et al. (1988)**

- Anonymous individualized charts of mean scores in a room accessible to employees only
- Found that objective feedback **did** improve performance

- Crowell, Anderson, Abel and Sergio (1988) posted anonymous individualized charts of mean scores for the tellers' transaction-interactions
- At the conclusion of the experiment Crowell et al. found a gradual increase in teller-customer interactions scores when objective feedback was used
- Crowell et al. found that objective feedback **did** improve performance in comparison to no feedback.

Slide 5

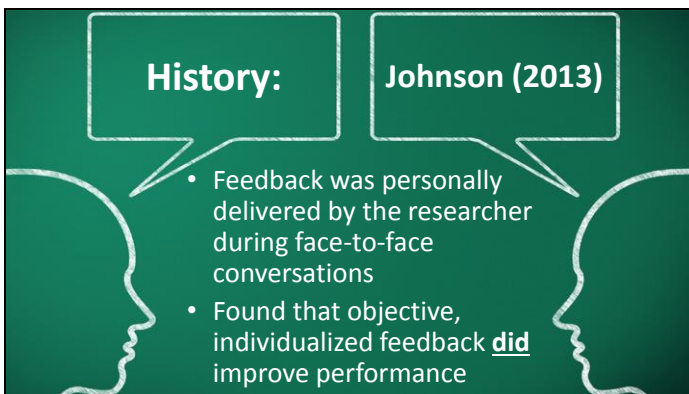


**History: Johnson, Dickinson, & Huitema (2008)**

- Feedback was delivered via computer display
- Found objective individualized feedback **did not** effect performance

- Johnson, Dickinson, and Huitema (2008) examined four conditions which included incentive pay with and without objective feedback, and fixed pay with and without objective feedback
- Feedback was delivered via computer display
- While the monetary incentives proved to be effective in increasing performance, the conditions in which objective feedback was given showed no significant difference to those conditions without.
- They found objective individualized feedback **did not** effect performance

Slide 6



**History:**

- Feedback was personally delivered by the researcher during face-to-face conversations
- Found that objective, individualized feedback **did** improve performance

**Johnson (2013)**

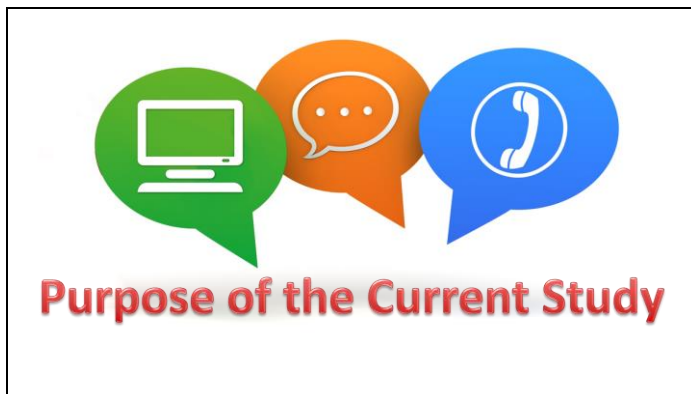
- Johnson (2013) examined the effects of objective feedback alone, evaluative feedback alone, combined evaluative and objective feedback, and a no feedback condition
- The feedback about performance was personally delivered by the researcher during face-to-face conversations in a small private room.
- While participants in the no feedback condition saw a decline in performance, the other objective feedback conditions each saw increases in performance
- Johnson found that objective, individualized feedback **did** improve performance in comparison to no feedback.

Slide 7



- Although objective and individualized feedback was used in all of the previous studies, the effects were not uniform.
- Such inconsistency suggests that a source of uncontrolled variance is operating in these different studies.
- Across the studies noted, a variety of methods such as visible counters, displays on computer screens, public wall postings, and personal interactions were used to deliver feedback.

Slide 8



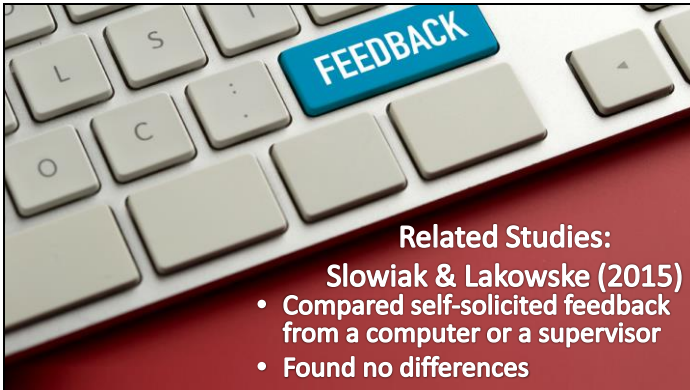
- This study looks to explore and evaluate the relationship between the modality used for the delivery of feedback and the effects it has on behavior.

Slide 9



- Earley (1988) examined the behavior of employees processing magazine subscriptions and compared the effects of daily feedback from a computer system to daily feedback delivered by a supervisor (using the computer system)
- Performance was higher when the feedback was self-collected directly from the computer source rather than delivered by a supervisor.

Slide 10

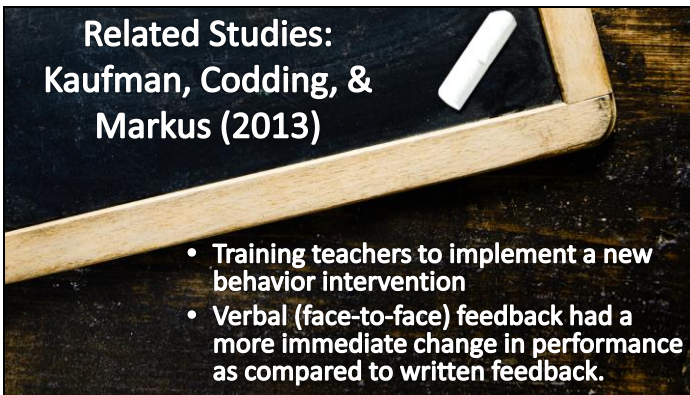


**Related Studies:**  
**Slowiak & Lakowske (2015)**

- Compared self-solicited feedback from a computer or a supervisor
- Found no differences

- Slowiak and Lakowske (2015) also compared feedback from a computer against feedback from a supervisor, although participants in their study could choose whether or not to solicit feedback from these sources.
- They found no differences between computer and face-to-face feedback sources.

Slide 11

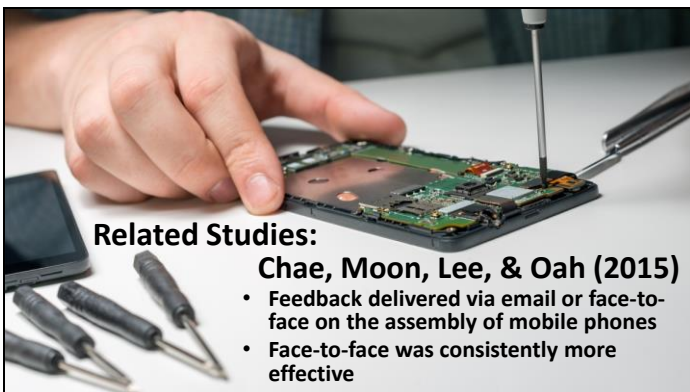


**Related Studies:**  
**Kaufman, Coddling, & Markus (2013)**

- Training teachers to implement a new behavior intervention
- Verbal (face-to-face) feedback had a more immediate change in performance as compared to written feedback.

- Kaufman, Coddling, and Markus (2013) found when training teachers to implement a new behavior intervention, teachers who received verbal (face-to-face) feedback had a more immediate change in performance as compared with when they received written feedback.
- However, both were found to be relatively effective and received high acceptability ratings by the teachers.

Slide 12

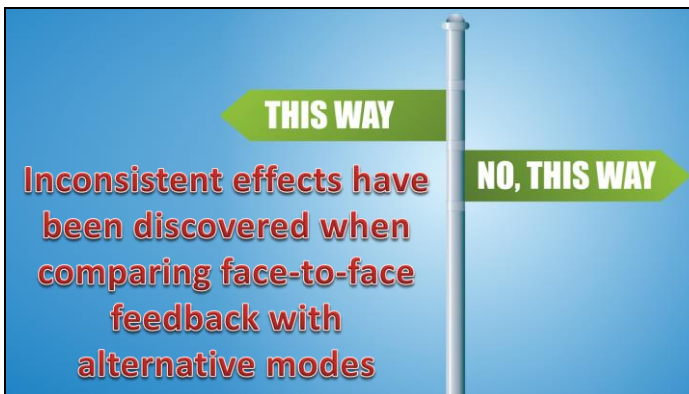


**Related Studies:**  
**Chae, Moon, Lee, & Oah (2015)**

- Feedback delivered via email or face-to-face on the assembly of mobile phones
- Face-to-face was consistently more effective

- Chae, Moon, Lee, and Oah (2015) compared the effects of feedback delivered via an email with the effects of feedback delivered face-to-face on the assembly of mobile phones.
- Face-to-face feedback was found to be consistently more effective than email feedback.
- For both email and face-to-face feedback, the same professor delivered the feedback and many of the participants had a history with this professor (i.e., former students of his).

Slide 13

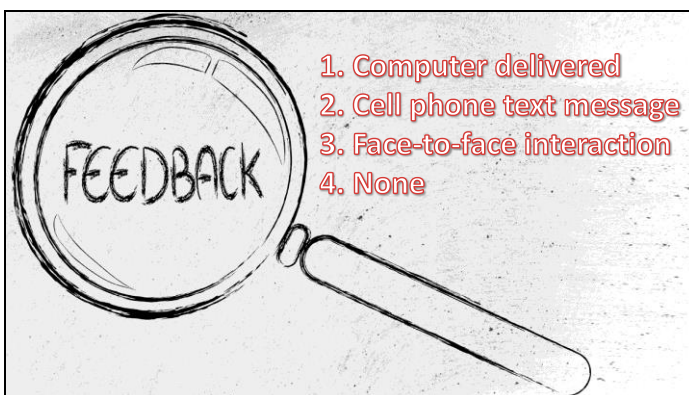


- Overall, the studies to date illustrate the need for further research. Inconsistent effects have been discovered when comparing face-to-face feedback with alternatives.
- In addition, little has been done to compare various alternative modes for delivering feedback against each other.
- The current study will contribute to the literature by comparing variety of delivery methods for feedback.

Slide 14

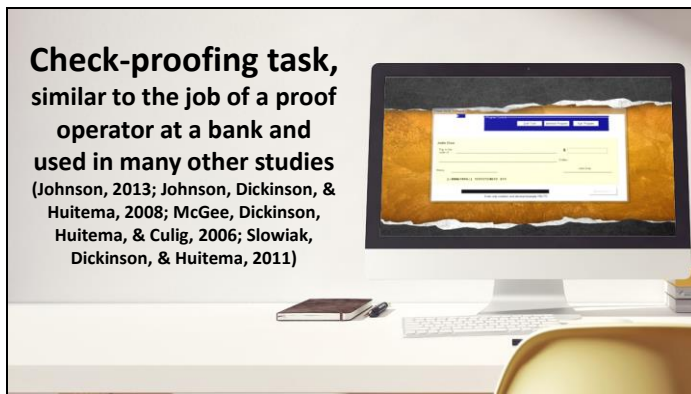


Slide 15



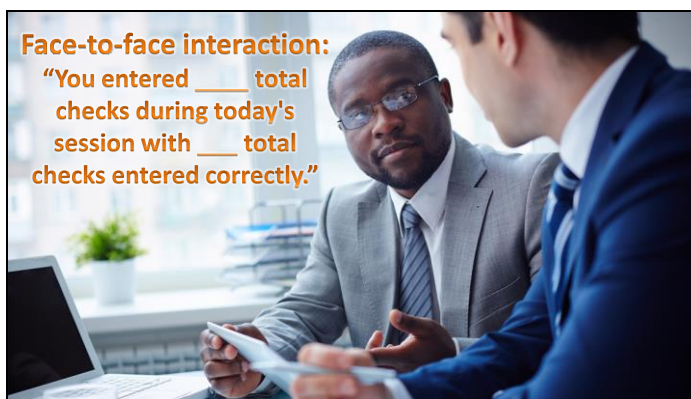
- This study will utilize a between-group repeated measures design with random assignment to the following four experimental conditions:
  - computer delivered feedback
  - feedback via cell phone text message
  - feedback via face-to-face interaction
  - no feedback

Slide 16



- The experimental task will be a check-proofing task, similar to the job of a proof operator at a bank and used in many other studies on feedback

Slide 17



- Feedback via face-to-face interaction
- The experimenter joined the participant in the other room and says, "You entered \_\_\_ total checks during today's session with \_\_\_ total checks entered correctly."
- Every effort made by the experimenter to use an even tone with minimal body language to insure no evaluative components are included in the feedback.

Slide 18



- In the text message feedback condition the same statement will be delivered via a text message 2-5 minutes after the subject has left.

## Effects of Feedback Modality on Performance

GARRETT WARRILOW & Douglas A. Johnson

Western Michigan University

May 29th, 2016

Association for Behavior Analysis International 42nd Annual Convention, Chicago, IL

Correspondence: garrett.d.warrilow@wmich.edu

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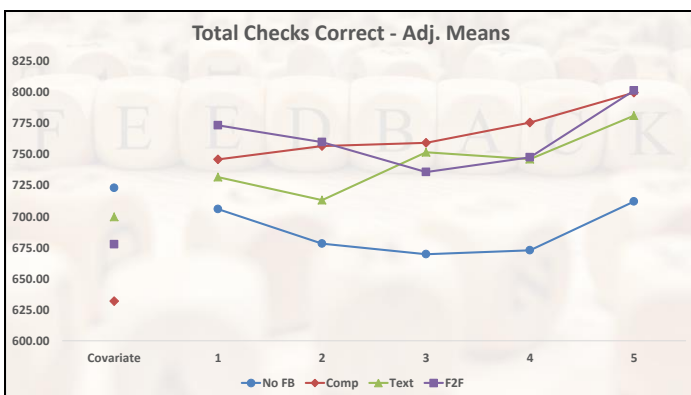


- Computer Delivered Feedback
- Participants receive the same feedback information regarding their total checks entered and the rate of checks completed as the face-to-face condition, however it will be provided via the computer instead of verbally from the experimenter.

Slide 20



Slide 21



**Effects of Feedback Modality on Performance**

GARRETT WARRILOW & Douglas A. Johnson

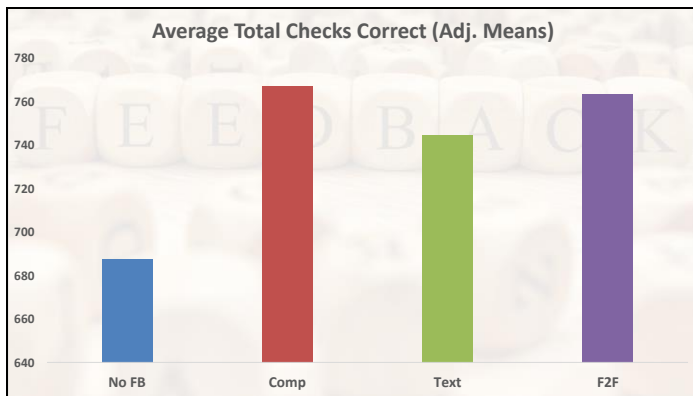
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Slide 23



Slide 24

