



# Technology in Coaching



# Defining ECoaching



- Online connection between a classroom teacher and a coach through a Voice over Internet Protocol (VoIP) (e.g., Skype) before, during, or after instruction
- Teacher being coached (during instruction)
  - wears a Bluetooth enabled earpiece
  - points a webcam toward the area of instruction
- Coach
  - Talks to the teacher while instruction is occurring
  - Provides instruction through instructional, positive, and corrective feedback

(Rock et al., 2009)

# Use of technology to provide instructional coaching to promote research-based strategies in classrooms...



While at the University of Alabama, Dr. Marcia Rock **explicitly taught** selected research-based practices through

**(a) modeling,**

**(b) providing concrete examples, and**

**(c) having teachers practice the strategies** while being supported with *online real-time coaching*

(i.e., Project TEEACH, OSEP Personnel Preparation Grant).



# Do the Features Look Different?

## Features (2011)

- Teachers need
  - A wide-angle webcam
  - USB extension cable
  - A Bluetooth adapter
  - A Bluetooth Headset
- Coaches need
  - An external hard drive (if recording)
  - A headset with microphone
  - A webcam and microphone (if not built into the coach's computer)

(Rock et. al., 2011)

## Features (2018)

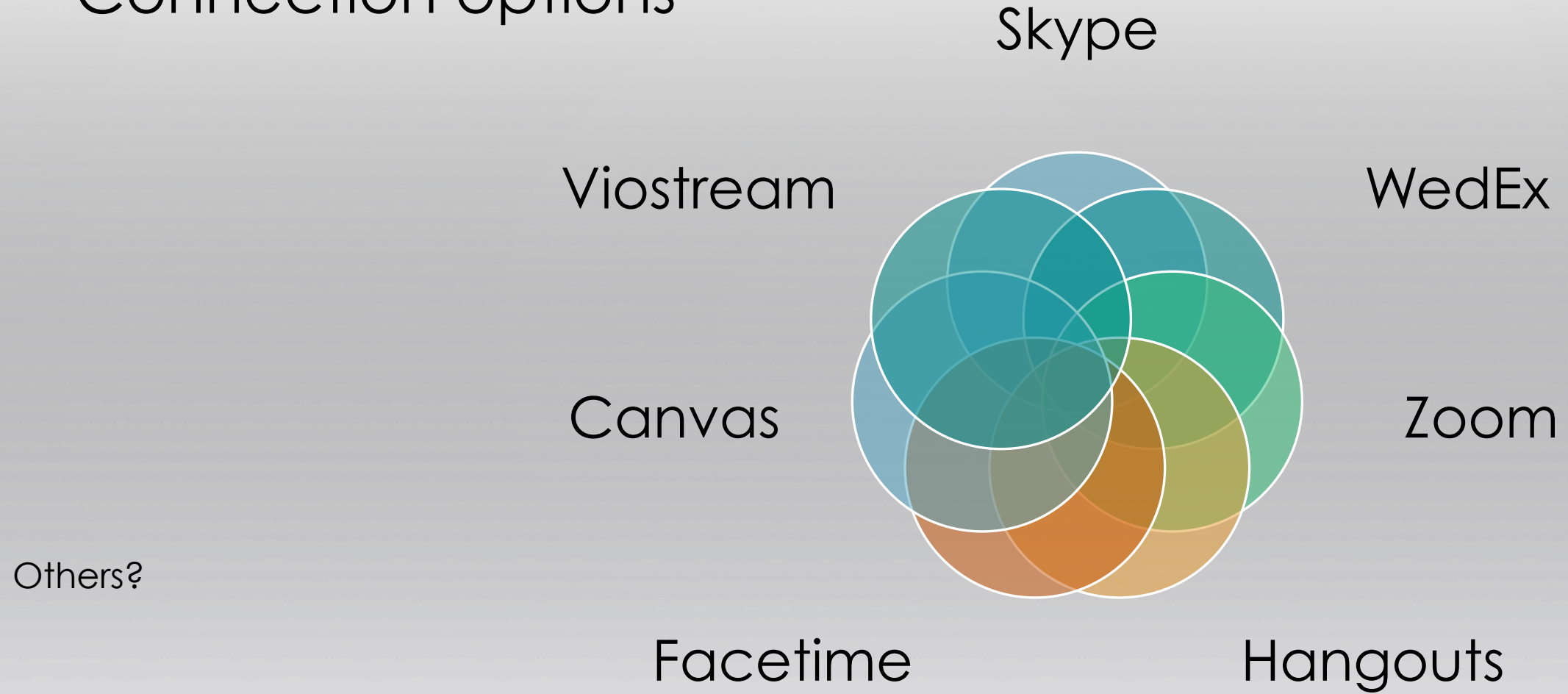
- Teachers need
  - A wide-angle webcam
  - USB extension cable
  - A Bluetooth Headset
- Coaches need
  - An external hard drive (if recording)
  - A headset with microphone (optional)

## Optional Features (2018)

- Teachers
  - Swivl
  - Tripods
  - Location microphones
- Coaches
  - Cloud storage

Others?

Connection options





# What are some models of coaching using technology ?

## Facilitative

- Coach does not share expertise
- Player does most of the thinking
- Player-focused goal

## Directive

- Coach's expertise is the focus of the coaching session
- Coach does most of the thinking
- Strategy-focused goal

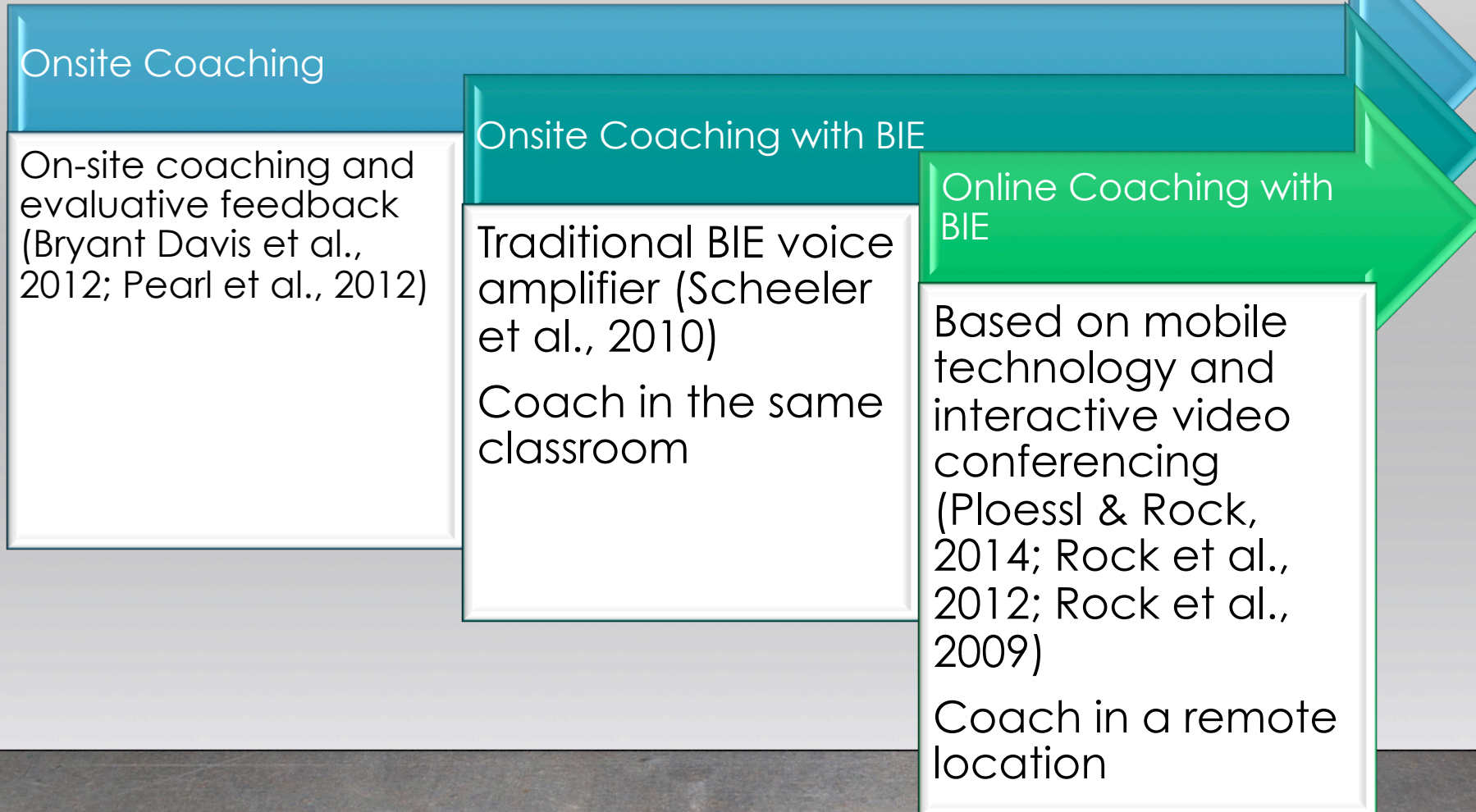
## Dialogical

- Coach Shares expertise dialogically when appropriate
- Coach and player think together
- Outcome or student-focused goal

Knight, Knight, & Carlson, 2017

# The Evolution of Coaching with

## Bug-in-ear Technologies







## Rationale for eCoaching Model

Oliver and Reschly (2010) assert there is **little evidence that special education teacher educators provide teachers with sufficient training** in effective use of evidence-based classroom management practices.

Recent efforts to improve teacher's use of evidence-based practices have focused, in part, on **web-based coaching and mentoring**, (Sindelar, Brownell, & Billingsley, 2010).



## Foundation for eCoaching Model

The conceptual framework for eCoaching is well established:

- Knight's (2007) work in instructional coaching
- Research regarding bug-in-ear technology (Gallant & Thyer, 1989; Scheeler et al., 2006, Rock et al., 2009)



# Coaching Models

- Strategic Coaching with Technology
  - Preparation Tactics
    - Frequent, regularly scheduled coaching sessions
    - Use positive more than corrective feedback
    - Focus on enhancing P-12 student learning
  - Retention Tactics
    - Coach less frequently, but still offer regular sessions
    - Provide booster coaching sessions when needed
    - Offer opportunities for peer-to-peer support and coaching

## **Rock's Initial Preparation Routine:**

1. Obtain, assemble, and test the tools- on both ends for functionality (e.g., checklist)
2. Conduct a few (2-3) practice sessions- no students; (15+ minutes) (e.g., provide chit chat, adjust to headset, demonstrate where instruction will happen)
3. Acclimate the students- to teacher wearing a Wireless Bluetooth before online coaching sessions begin
4. Predetermine the day and time (coaching session) the online session will occur (e.g., appointment\*)

(Rock, et. al., 2009)



# 4 Types of Coaching Statements (Rock et al., 2009)

<b>Encouraging</b> ★★	<b>Questioning</b>	<b>Instructive</b> ★	<b>Corrective</b>
<p>“Terrific! Nice job using a partnering strategy.”</p> <p>“Yes, good use of specific praise.”</p>	<p>“Is that a worksheet or a graphic organizer the students are using?”</p> <p>“Good job what?”</p>	<p>“Pay more attention to the student when she is cooperative and less when she is not.”</p> <p>“Give them a choice.”</p> <p>“Now is a good time to partner.” of “Have them turn and talk.”</p>	<p>“Round Robin reading is a low access practice. Please try cloze reading with a choral response.”</p>



# Traditional Coaching

- Delayed Video feedback
- Conferencing
- others?
- Can we do this using technology?



# Coaching skills

# Instructional Coaching

When taught a new strategy during an after-school workshop, teachers more likely to...

- implement new strategy when supported by an instructional coach compared to only attending the after-school workshop.
- self-selected to use the new strategy at a higher quality when supported by instructional coaching as opposed to only attending the workshop.

(Cornett & Knight, 2009)



# eCoaching with immediate feedback:

"A virtual coach is a supportive companion who inspires and builds up teachers." (Rock, 2011)

- Encouraging ★★ and Instructive ★

statements were offered more often than corrective or questioning.

- Coaching statements were delivered most often while the classroom teacher was
  - (a) delivering instruction during a pause in teacher talk,
  - (b) before the lesson began, and
  - (c) after the lesson had ended.

(Rock, Gregg, Thead, Acker, Gable, & Zigmond, 2009)

# eCoaching with immediate feedback:

- Goal set by the teacher with support of the coach
- Predetermined statements agreed upon by teacher and coach
- Coaching statements made with the targeted behavior in mind

Blended with Knight's coaching cycle:  
Identify, Learn, Improve

# Coaching with video delayed feedback:

- On a scale of 1-10, how close is the lesson to your ideal?
- What pleased you about the lesson?
- What would you have to change to make it closer to a 10?
- What would you see your students doing differently?
- Describe what that would look like?
- How could we measure that?
- Should that be your goal?
- If you could reach that goal would it really matter to you?
- What teaching strategy would you like to try to achieve your goals?



What data do we have about  
eCoaching?





# Three term contingency trials

- Teachers increased use of Three term contingency trials
  - provides intensity to instruction
  - provides positive and constructive feedback to guide student's learning and behavior
  - Increase in targeted behaviors
  - BIE prompted change of behavior more quickly than delayed feedback
- Scheeler, Bruno, Grubb, & Seavey, 2009
- Scheeler & Lee, 2002
- Scheeler & McAfee, Ruhl, & Lee, 2006
- Scheeler, McKinnon, & Stout, 2012



## Implementation of selected research-based strategies supported by eCoaching.

Teachers increased number of...

- Verbal/Nonverbal Choral Response strategies implemented
- Partner strategies implemented
- Cloze Reading strategies implemented

(Rock et al., 2009)



## Key Findings from Rock's Body of Work

Matched pair t-tests and Bonferroni corrections confirmed:

- Improvements in participants' effective use of evidence-based classroom management practices
- Maintenance after one and three years.
- P-12 students' engagement remained high

Qualitative findings confirmed that participants found the eCoaching vital to increasing their use of evidence-based practices, and they viewed it as a powerful tool for improving positive classroom climate.

# Co-teaching



- Varied Co-teaching Approaches
- 3 Dyads increased use of varied co-teaching approaches
- All three Dyads increased used of student Specific accommodations
- All three dyads Demonstrated 4:1 Positive to Corrective Ratio
- Decreased Number of Redirections



# Foundational Research



**Proof of Concept TESE Study** – See Rock, M. L., Gregg, M., Thead, B. K., Acker, S. E., Gable, R. A., Zigmond, N, (2009). Can you hear me now? Evaluation of an online wireless technology to provide real-time feedback to special education teachers-in-training. *Teacher Education and Special Education*, 32(1), 64-82.

**Replication and Extension JTATE Study** – See Rock, M. Gregg, M., Gable, R., Zigmond, N., Blanks, B., Howard, P., & Bullock, L. (2012). Time after time online: An extended study of virtual coaching during distant clinical practice. *Journal of Technology and Teacher Education*, 20(3), 277-304.

**Follow Along Study** – See Rock, M.L., Shumacker, R., Gregg, M., Howard, P.W., Gable, R. A., & Zigmond, N. P. (2014). How are they now? Longer term effects of eCoaching through online bug-in-ear technology. *Teacher Education and Special Education*, 37(2), 161-181.

# Foundational Research

- Classroom/Behavior Management** –See Rock, M.L., Schoenfeld, N., Zigmond, N., Gable, R.A., Gregg, M., Ploessl, D. M., & Salter, A. (2013). Can you skype me now: Developing teachers' classroom management practices through virtual coaching. *Beyond Behavior*, 22(3), 15-23.
- Shared Leadership** –See Rock, M.L. Zigmond, N.P., Gregg, M., & Gable, R.A. (2011). The power of virtual coaching. *Educational Leadership*, 69(2), 42-47.
- Recruitment, Preparation, & Retention** – See Rock, M.L. Gregg, M., Gable, R.A., & Zigmond, N.P. (2009). Virtual coaching for novice teachers. *Phi Delta Kappan*, 91(2), 36-41.
- Professional Development** –See Rock, M.L., Gregg, M., Howard, P., Ploessl, D.M., Maughn, S., Gable, R.A., & Zigmond, N.P. (2009). See me, hear me, coach me: Virtual bug-in-ear technology brings immediacy to professional development. *Journal of Staff Development*, 30(3), 24-31.
- Co-teaching Extension Study** – See Ploessl, D.M. & Rock, M.L. (2014). eCoaching: The effects on co-teachers' planning and instruction. *Teacher Education and Special Education*, 37(3), 191-215.

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- Scheeler, M. C., Congdon, M., & Stansbery, S. (2010). Providing immediate feedback to co-teachers through bug-in-ear technology: An effective method of peer coaching in inclusion classrooms. *Teacher Education and Special Education*, 33(1), 83-96.