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Virtual Coaching for Novice Teachers

Technology enables university professors to observe and literally whisper in the ear of a teacher during instruction.

By Marcia L. Rock, Madeleine Gregg, Robert A. Gable, and Naomi P. Zigmond

Meet Katie . . .

The end of the school year was fast approaching. Katie couldn’t wait. As far as she was concerned, it had been a dreadful year. She was beginning to think she wasn’t cut out to be a teacher. She had graduated from her teachers’ college with a 3.9 GPA. She had always wanted to be a teacher. But after three years, in three different classrooms, she still hasn’t found her niche. She had taught 1st grade, 3rd grade, and 6th grade, but her students were always unruly and seemed uninterested in her lessons. Maybe it was the school — her fellow teachers were all experienced, and it seemed as if everything came so easily to them. She didn’t know teaching was going to be so hard.

Across the country, school district personnel are struggling to attract and retain high-quality teachers who can meet the unique academic and behavioral needs of an increasingly diverse student population. Teachers of math, science, English as a second language (ESL), computer science, bilingual education, and special education are particularly hard to find. Although this isn’t a new problem, we’re only beginning to develop effective and innovative approaches to combat it. Mentoring programs, financial incentives, and reward/recognition plans represent a few of the more popular responses to the recruitment and retention dilemma.

In certain content areas, such as ESL or special education, some states experience greater difficulty in attracting, preparing, and retaining high-quality teachers.

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teachers. One such state is Alabama. When compared with national statistics, Alabama public school students are more likely to be poor, a member of a racial minority, and disabled. Alabama has experienced depressed academic performance, increased dropout rates, and heightened suspension and expulsion rates. Despite the many challenges confronting the state’s schools and its students, preservice teachers are often ill prepared for the diversity they face. Elementary and secondary education majors in Alabama are required to take only one course related to exceptional learners (that is, Introduction to Special Education). And the opportunities for and quality of professional development experiences once they enter the profession are very uneven. Yet nationally, and in Alabama as well, the most up-to-date statistics confirm that over 80% of students with disabilities receive all or part of their instruction in the general education classroom (American Institutes for Research 2007). Is it any wonder new teachers like Katie are floundering?

Project TEEACH — which stands for Transforming Elementary Educators into Advocates, Change Agents, and Highly Qualified Special Educators — was developed to address these issues. Project TEEACH enables university-based educators to provide virtual coaching for inservice teachers using bug-in-the-ear technology. We call our technology VBIE.

In our virtual coaching sessions, a professor observes a teacher using a high-definition web cam and Voice over Internet Protocol (VoIP) technology, such as Skype. The teacher being observed wears a Bluetooth-enabled bug in her ear. As the teacher works with students, the professor coaches her. The coach may literally suggest words that the teacher can use with students. The coach may alert the teacher to watch for certain student behaviors. The coach may identify teacher behaviors that are either appropriate or less than ideal in the given instructional situation. Students typically know that someone is observing the instruction, but they are not able to hear what the teacher is hearing.

In her third year, Katie had the motivation to be a high-quality teacher, but something was lacking. She knew what to do; she just couldn’t seem to do it. She was a diamond in the rough, spending her third year of teaching in a university-affiliated Professional Development School. Katie applied to become a Project TEEACH scholar even though she didn’t know anything about the technology and couldn’t imagine what it would be like to have someone talking in her ear as she was trying to teach. But she was excited by the possibilities the technology held for improving her teaching skill. She was even intrigued about the possibility of being transformed into a special education teacher. Katie was selected for the inaugural cohort.

Strategic Attraction Tactics

Recruiting high-quality candidates into teaching, especially in areas of critical need, such as special education, can be a daunting task. The professional literature is replete with strategies aimed at recruiting the best and the brightest (Villegas and Davis 2007). Teachers like Katie, who are highly motivated but struggling, represent an untapped resource that shouldn’t be discounted prematurely. We believe this innovative VBIE technology can be used effectively to recruit teachers into areas of high need.

Research underscores the importance of providing four times as much encouraging feedback as instructional or corrective feedback.

Recruitment Tactic #1: Adopt a planned, strategic approach. Even when technology takes center stage, collaborative partnerships are essential. In Project TEEACH, we wanted to work with certified teachers who would add a second area of certification in special education. We came to this idea because Metzke (1988) indicates that teachers who have a master’s degree are less likely to leave the profession. We also believe that teachers with this additional certification might move out of their general education classroom to deliver special education services to students with special needs.

We recruited teachers into Project TEEACH in part by using the same video-conferencing capabilities used to provide the virtual coaching. This allowed us to appeal directly to teachers before a faculty meeting in a school located over 70 miles from the university campus and, five minutes later, recruit at another school across town.

Recruitment Tactic #2: Look for diamonds in the rough. Instead of looking for teaching stars, we focused on recruiting pre- and inservice teachers who were struggling to be successful. If these individuals had the desire to improve but didn’t seem to know how to do so, they became targets for recruitment. Close collaboration between our school partners (that is, school district administrators, university faculty, and state department personnel) made accurate identification of these teachers possible. For example, in Katie’s story, university and school district person-
To encourage teachers to remain in critical teaching positions, such as special education, we need to provide continuous job-embedded support and high-quality feedback. Virtual bug-in-the-ear technology is one tool that allows university educators to provide unobtrusive coaching for new and struggling teachers without being physically present in the classroom.

The experience of Project TEEACH, based at the University of Alabama, suggests that simple technology tools could be used effectively to support teachers through their most challenging instructional situations. Such coaching provides the kind of at-the-elbow support that can be most beneficial to young teachers.

**Employ a viral marketing strategy.** Viral marketing originated in business and, as the name implies, relies on individuals to pass along marketing appeals directly to others (Sernovitz 2009). In Katie’s case, her excitement about the VBIE technology and her testimonials regarding its benefits helped us recruit others into the program.

Preparation Tactic #3: Use positive more than corrective feedback. Several coaching models are described extensively in the professional literature (Knight 2007). Common among them is the notion that coaches should provide high-quality feedback to teachers. And, to establish positive behavioral momentum and to encourage the teachers to try new educational approaches in the classroom, research underscores the importance of providing four times as much encouraging feedback as instructional or corrective feedback (Sugai and Horner 2002). With Katie, we often found this challenging.

Katie’s virtual coaching sessions began during her first semester in Project TEEACH. Early on, we realized that Katie needed a lot of intensive coaching not only in specialized curriculum and instruction, but also in behavior management and data-informed decision making. Katie struggled during the coaching sessions. Her content knowledge was best described as emerging, her instructional approach was based primarily on poorly designed question-and-answer discussions, her behavior management style was inconsistent and punitive, and her approach to educational decision making was haphazard. Her students were often disengaged, unmotivated, and not learning. Coaching Katie was not easy. We focused on reinforcing Katie’s strengths and on setting specific, measurable, and observable goals to address her professional needs. Through it all, Katie kept her end of the bargain, and so did we.

By the final semester of Katie’s enrollment in Project TEEACH, Katie had turned the proverbial corner. Her content knowledge was deeper and broader; her instructional approaches were varied, her behavior management style was proactive and positive, and her educational decision making was based on sound data. Her students responded not only with high rates of engagement and enthusiasm, but also with correct and creative responses. We (and she) knew she was on her way to becoming a master teacher. Nonetheless, our weekly virtual coaching sessions continued. Happily, her performance for the remainder of the semester did not waver.

**STRATEGIC PREPARATION TACTICS**

Preparing “struggling teachers” to become high-quality teachers can be a difficult undertaking. Unfortunately, many teacher training and professional development programs are not up to the task (Darling-Hammond 2005). Innovative VBIE technology offers unique ways to better prepare and support teachers to meet the needs of students who are difficult to serve.

**Preparation Tactic #1: Opt for frequent, regularly scheduled coaching sessions.** One problem with the traditional teacher preparation model is the traditional model of teacher supervision and evaluation. A university supervisor or building administrator visits a classroom once or twice a semester, watches a lesson, and later offers the teacher a critique of the lesson. While this approach might provide sufficient feedback and reinforcement for accomplished teachers, the research is clear: Less skilled teachers need frequent, job-embedded support and high-quality feedback. Providing it was neither possible nor practical before VBIE.

With VBIE technology, the delivery of job-embedded support and high-quality feedback can occur at least 30 minutes a week. The Project TEEACH teachers provided their classroom schedule. Then, we used their schedules to create a VBIE coaching schedule that we sent via e-mail to them each week. Flexibility, however, was paramount. Because the teachers and the coach’s schedule were subject to almost daily changes, we had to be respectful and make changes almost constantly. Since no travel time was involved, these constant shifts in the schedule posed only minor inconveniences.

**Preparation Tactic #2: Use positive more than corrective feedback.** Several coaching models are described extensively in the professional literature (Knight 2007). Common among them is the notion that coaches should provide high-quality feedback to teachers. And, to establish positive behavioral momentum and to encourage the teachers to try new educational approaches in the classroom, research underscores the importance of providing four times as much encouraging feedback as instructional or corrective feedback (Sugai and Horner 2002). With Katie, we often found this challenging.
Our greatest fear was that we would inadvertently reinforce errors by not immediately correcting them. But, we also knew that we needed to establish positive behavioral momentum with Katie in order to avoid resistance. In the end, our faith in the research paid off.

Preparation Tactic #3: Focus on enhancing P-12 student learning. During VBIE coaching, we found it helpful for the coach to focus feedback not only on the performance of the teacher in training, but also on the P-12 students’ learning. Project TEEACH scholars have reported to us that comments on students’ behavior or performance during the coaching sessions were eye-opening or “aha” moments for them. For example, 15 minutes into one of Katie’s VBIE coaching sessions, we pointed out that all but one of the 23 kindergarten students were disengaged from the lesson and that none were answering questions correctly. Then, we commented that not only was the story too long (and the length of time the children were required to sit still developmentally inappropriate), but also that they had very few opportunities to respond during the read-aloud. Katie paused momentarily and nodded in agreement. What she later told us was that she realized (at that moment) that although she had been reading to the children, she had not been evaluating their level of responsiveness to her instruction. Katie did not make the same mistake again. She selected shorter stories and offered lots of opportunities for children to simultaneously answer lower- and higher-order questions, using high-access instructional strategies, such as partner talk, thumbs up, and choral response (Feldman and Denti 2004). As a result, the average rate of engagement in Katie’s students increased to over 97%.

Retaining Katie...

Katie’s performance during VBIE sessions improved markedly. She was more confident and more satisfied with her teaching. But we knew Katie would continue to need ongoing job-embedded support and high-quality feedback. So, once a month, we carried out VBIE sessions with her even after she completed her training program. To our delight, Katie continued to thrive, putting the evidence-based instructional and behavioral approaches she learned into daily practice in her classroom. Throughout the past year, Katie has undergone numerous observations and evaluations by her school district administrators, which she has passed with flying colors. More important, Katie looks forward to going into her classroom every day because her teaching brings her joy. Of course, there are still
occasions when Katie needs to be coached through a classroom interaction, but such occurrences are less frequent. Also, Katie has expressed a desire to become a peer coach. She will soon use VBIE to coach new Project TEEACH scholars.

**TABLE 1.**

**What are Virtual BUGs?**

Virtual BUGs refers to virtual bug-in-ear technology (VBIE) developed by Rock and her colleagues. The desk or laptop computer serves as the platform for the VBIE technology. Using a VoIP, such as Skype, allows the teacher and the coach to exchange verbal communication through the computer, instead of the telephone. The Bluetooth earpiece offers discreet, rather than public, exchange of communication, meaning only the teacher (not the students) can hear the coach's comments. The Bluetooth adapter permits the earpiece to be paired with the computer. And, the web cams allow the coach to visually view the classroom, while the students and teacher can also see the coach. Below are the technology components teachers and coaches need to carry out VBIE sessions.

**TEACHER COMPONENTS**

- Desk or laptop computer, either PC or Mac. (We used whatever computer was available in the teacher’s classroom.)
- Voice over Internet Protocol (VoIP), such as Skype™ or SightSpeed™
- Bluetooth earpiece
- Bluetooth adapter
- Web cam, preferably with high-definition and zoom features, as well as with wide-angle lens capability.

**COACH COMPONENTS**

- Desk or laptop computer, either PC or Mac. (We used a Dell desktop and a MacBook Pro laptop.)
- Voice over Internet Protocol (VoIP), such as Skype™ or SightSpeed™
- Headset with microphone
- Web cam
- Video call recording program, such as Pamela for PC or Call Recorder for Mac, to save the VBIE sessions as electronic video files.
- External hard drive to store saved video files.

*Note: Provisional patent pending US 61/072,210.*

**STRATEGIC RETENTION TACTICS**

While recruiting and preparing high-quality teachers are, indeed, noble pursuits, retaining good teachers is another area that warrants attention. Teaching in areas of high need, such as special education, can be particularly stressful. Again, VBIE technology offers unique opportunities to put into practice effective retention strategies.

**Retention Tactic #1: Coach less frequently, but still offer regular sessions (for example, once a month).** The VBIE technology is ideal for use as a situated learning tool (Lave and Wenger 1991) to coach teachers in real-time, during classroom instruction. After all, this is the time when they most need job-embedded support and high-quality feedback but are least likely to receive it. Project TEEACH scholars have told us that they rarely receive feedback as part of their regular work.

The message is clear: To encourage teachers to remain in critical teaching positions, such as special education, we need to provide continuous job-embedded support and high-quality feedback (Grier and Halcombe 2008). VBIE makes that possible by overcoming the once seemingly insurmountable barriers of time and distance.

**Retention Tactic #2: Provide booster coaching sessions when needed.** Psychological researchers have confirmed that the best predictor of future behavior is past behavior. Therefore, we need to anticipate that even teachers who have managed to transform their instructional approach will need “booster” coaching in the future. And, of course, when providing such support, it’s imperative that coaches employ the same model described in the previous section (that is, offer more positive than corrective or instructive feedback, focus on enhancing P-12 student learning, and share data-based observations of student behavior as well as teaching behavior). Also, communicating a passion for and a commitment to lifelong learning is essential to prevent “booster” sessions from being viewed negatively by teachers. Katie’s “booster” sessions were scheduled on an as-needed basis in addition to her routine monthly virtual visits.

**Retention Tactic #3: Offer opportunities for peer-to-peer support and coaching.** Because many teachers report feeling isolated from their colleagues, VBIE is an innovative way to help connect teachers not only with peers in the same building, but also with colleagues across town, across the state, or even across the country. Katie reported that she used VBIE to network with other individuals from her original cohort, to observe their use of research-based practices, to brainstorm and problem solve, and to take her students on virtual field trips to other classrooms.

*The rest of the story…*

Two years after Katie debated whether to leave the teaching profession, she wondered how she could have ever considered doing so. For the first time in her fledgling career, Katie felt that she had a successful year and was looking forward to another. Her children met their expected academic benchmarks, and her contract had been renewed during tough economic times when teaching positions were being eliminated. Instead of becoming an attrition statistic, Katie had emerged as a high-quality general and special education teacher. While she knows she'll have to continue to work at it, she credits her initial transformation to Project TEEACH and the VBIE technology.

**BEYOND PROJECT TEEACH**

Obviously, Katie is an “N” of one, and preparing 31 new high-quality special educators in Alabama
does not seem impressive, nor substantive in terms of resolving the current national recruitment and retention dilemma. What we have attempted to do in this article is to describe an innovative approach and to offer practical solutions that hold great promise. In so doing, we maintain that using bug-in-ear technology to revolutionize preservice teacher preparation and professional development is desirable not only to achieve improved retention and recruitment outcomes, but also to provide high-quality teachers for all students. If every education professor or school district administrator coached 10 to 20 struggling teachers a week using virtual BUGS, the positive effects that could ensue would, no doubt, prove worthwhile. With that in mind, we think you’ll agree this is one “bug” worth catching.

REFERENCES


