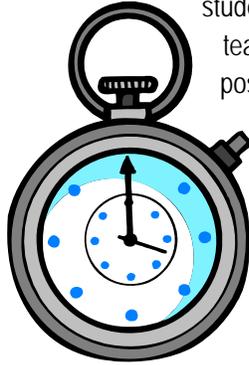




# Fixed-Interval Audio Tapes: The 'Soundtrack' of School-Based Assessment & Intervention

When collecting data and implementing interventions, the educator must often pay close attention to the passage of time. For example, an observer who is measuring a student's level of classroom attention may choose to assess that student's on-task behavior every 20 seconds during an independent seatwork assignment. Or a teacher who wishes to use more praise-statements to motivate the class may attempt to praise positive student behaviors at least once every 3 minutes during large-group instruction.



When assessment or intervention requires that specific actions be performed at fixed intervals, the most obvious solution is for the educator to use a fixed-interval audio tape. Such a tape has pre-recorded tones (i.e., 'beeps') occurring at fixed intervals (e.g., every 30 seconds; every 2 minutes; etc.) to cue the educator to collect a behavioral observation or implement an element of an intervention plan. Think of fixed-interval audio tapes as the 'soundtrack' for effective assessment and intervention work.

In the recent past, schools typically found use of fixed-interval audio tapes to be cumbersome and labor-intensive--often requiring the creation of cassette tapes or other physical media. However, now that digital devices such as laptops, tablets, smart phones, and MP3 players are widely available in school settings, educators can easily use those devices to download and play electronic versions of fixed-interval audio tapes.

As a service to educators, Intervention Central (<http://www.interventioncentral.org>) has recently developed and posted a FREE collection of 10 fixed-interval audio tapes in MP3 format with time intervals ranging from 10 seconds to 5 minutes and a tape duration of at least 30 minutes. That collection can be accessed at:

<http://www.interventioncentral.org/free-audio-monitoring-tapes>

The main uses for the fixed-interval audio tape collection are *to conduct behavioral observations* and *to implement elements of academic or behavioral interventions*. Here are quick descriptions of each of these uses, with applied examples:

**Behavioral Observation.** A common use of the fixed-interval audio tape is as a dependable cueing aid for behavioral observation. The observer selects an MP3 audio tape with time intervals (e.g., 10-second; 30-second) appropriate to the behavior(s) to be observed and the method to be used to record the behavior(s). While conducting the observation, the observer notes the tones on the audio-tape that signal the onset of each successive interval. The tape cues the observer to collect behavioral data using momentary time-sampling, partial or full interval recording, frequency-counts, or other behavioral-assessment method--and permits the observer to 'time-stamp' that data by linking it to the appropriate time-interval.

Here are two examples of how the fixed-interval audio tapes might be used for classroom behavioral observations:

- *Inattention: School Psychologist as Observer.* A school psychologist visits a classroom during independent seatwork to conduct a behavioral observation of an inattentive student. Using an audio tape with 15-second intervals loaded onto his laptop, the psychologist observes the number of intervals that the student is actively



academically engaged during the observation period. The student's amount of on-task behavior can then be expressed as a percentage of the total number of observational intervals (e.g., actively academically engaged for 80% of observed time).

- *Out of Seat: Teacher as Observer.* A teacher who is working with a small group of students at the back of the classroom uses the 2-minute-interval audio tape on an MP3 player (with earphone) to remind her periodically to observe a target student across the classroom and to briefly record whether that student is in his seat before returning to her group instruction.

**Academic or Behavioral Intervention.** Effective interventions often require that educators schedule structured interactions with students in a manner that supports academic or behavioral goals. In busy classrooms, however, it is easy for teachers and others to forget to carry out their interventionist roles because of unexpected interruptions or other environmental distractions. If an educator plans to follow a fixed-interval schedule to provide intervention support to a student, a fixed-interval audio tape can serve as a helpful, gentle reminder to the educator to implement the intervention element(s) repeatedly and on cue. (NOTE: Another exciting application of fixed-interval audio tapes is to have students use them to monitor their own behaviors. See example below.)

The educator selects an MP3 audio tape with time intervals (e.g., 2-minute; 5-minute) appropriate to the frequency with which that educator is to intervene, downloads it to a digital device that is convenient to use, and starts the tape at the start of each intervention session.

Here are two examples of how the fixed-interval audio tapes might be used for classroom interventions:

- *Praise Statements: Classroom Teacher as Interventionist.* A middle-school teacher wants to increase her use of praise-statements as a means to increase student academic motivation (e.g., Kern & Clemens, 2007). The teacher decides to deliver praise statements to various students every 3 minutes during large-group instruction. To assist in this intervention, the teacher downloads the fixed-interval audio-tape with 3-minute intervals onto her smart phone and uses a wireless receiver/earpiece to monitor the tape. Each successive tone signals to the teacher to deliver a praise statement.
- *Reading Comprehension Fix-Up Strategies: Student as Interventionist.* A 7th-grade student has difficulty with reading comprehension. He is trained during independent reading to pause every 5 minutes to reflect briefly on his understanding of the material just read and to apply reading comprehension fix-up skills as needed (Hedin & Conderman, 2010). The student downloads the fixed-interval audio-tape with 5-minute intervals onto a computer tablet issued to him by the school. When completing reading assignments, the student has the tape running in the background and relies on its tone cues to trigger his reading-reflection pauses.

## References

- Hedin, L. R., & Conderman, G. (2010). Teaching students to comprehend informational text through rereading. *The Reading Teacher, 63*(7), 556–565.
- Kern, L. & Clemens, N. H. (2007). Antecedent strategies to promote appropriate classroom behavior. *Psychology in the Schools, 44*, 65-75.