

Florida Center for Reading Research

Tune in to Reading

What is Tune in to Reading?

Tune in to Reading is a reading fluency intervention for struggling readers in grades 3-12. The goal of the program is to increase students' fluency by providing engaging practice opportunities through repeated reading and singing of song lyrics. *Tune in to Reading* offers students an unconventional approach to fluency development through the use of interactive singing software technology. Songs in the program represent a variety of genres leveled according to the Flesch Readability Formula (Flesch, 1940) and Fry Readability Formula (Fry, 1977) and span grade levels 1-8. Students work individually at a computer station wearing microphoned headphones for 30 minutes, three times a week for nine weeks. *Tune in to Reading* may be implemented in the classroom or in a computer lab.

The *Tune in to Reading* software determines a student's instructional reading level by cloze tests which are given initially as pretests and again as posttests at the end of the nine week intervention. The reading level derived from the pretest results guides the teacher's decision when assigning songs and text passages to each student's lesson folder. Before fluency practice begins, the student sets his/her vocal range by an easy, step-by-step process which enables the software to position all of the songs to the student's personal vocal range. Next, the student chooses a song from My Lesson folder and reads the words silently three times while listening to the melody. During the silent reading, the student follows the lyrics from a standard sheet music view on the computer screen and listens to the musical accompaniment. A vertical pitch tracking line guides the student to follow the words with the music, making the ability to read music an unnecessary prerequisite. Then, the student records the song at least three times, trying to improve each performance. The tracking line also provides students with a visual representation of their pitch accuracy. After each recording, a score representing accuracy of pitch and rhythm appears at the top of the page. Finally, the student has the option to improve his/her score (performance) or to begin a new song. While the objective of participation with *Tune in to Reading* is for the student to improve his/her singing, the silent readings and the recordings of the lyrics result in several repeated readings. It is the intention of the program's developers that this process of combining reading and singing will increase the student's overall reading fluency.



Materials for *Tune in to Reading* include the software, the microphoned headphones, and a manual that teachers receive when they attend the professional development training. The manual includes background information, the cloze tests, and teacher-friendly directions for setting up classes of students, assigning songs and texts, and student reports. In addition to the cloze tests, the program developers encourage the use of other assessments to cross reference and confirm students' instructional reading level. *Tune in to Reading* is a very new program and additional enhancements include an expanded variety of songs, lesson plans surrounding the songs, as well as options with the text readings and speech recognition component of the software. Network configuration options include installation on a local server at the school site and installation on a district server or a hosted instance via internet.

How is Tune in to Reading aligned with Current Research?

The importance of reading fluency and its connection to comprehension has been cited in the literature (Allington, 1983; Chard, Vaughn, & Tyler, 2002; Fuchs, Fuchs, Hosp, & Jenkins, 2001; Samuels, 1988; Schreiber, 1980), and the Report of the National Reading Panel (NRP, 2000) identifies fluency as one of the essential components of reading instruction. *Tune in to Reading* addresses the three dimensions of reading fluency, rate, accuracy, and prosody with a more direct emphasis on prosody, and an indirect emphasis on speed and accuracy.

Students receive explicit instructions before fluency practice begins, and the process of repeated reading and repeated singing is explicitly and systematically delineated in the software. The repeated opportunities for practice give students multiple exposures to the words; however it is important for teachers to verify whether or not the students are singing the words correctly.

Tune in to Reading's software design enhances the possibility of prosody development due to its responsiveness to pitch and rhythm. The student's repeated singing of each song is meant to result in a more expressive rendering of the piece. During the recording phase of fluency practice, students view a graphic text format rather than the sheet music text format. In the graphic view, the song lyrics are broken into syllables according to the phrasing of the melody, and placed at the student's appropriate pitch level. Seeing how the words are separated and listening to the simultaneous melodic emphasis is meant to facilitate the expressive quality of the words in the student's overall performance.

The fluency dimension of rate is addressed by each song's musical accompaniment, giving the student an example of the song's optimal speed. Several software features enable the student to vary the accompaniment while learning the song, such as slowing down the tempo, having only the melody play, removing the melody so there is only accompaniment, having a metronome tap out the beat, and changing the key of the song. This variety in software capability may assist the student with rate as well as increase overall interest in the process.

Accuracy of pronunciation is not explicitly addressed unless the teacher chooses to do so. The student reports generated by the software indicate to teachers how well each student is progressing on the pitch and rhythm of a piece, but not on pronunciation accuracy. Unless the teacher has modeled the song, the student may not have ever heard some of the words pronounced before they begin the silent reading of the lyrics. The teacher's manual addresses this by giving optional tips pertaining to ELL students and emergent readers that include modeling a song at least twice, preteaching difficult vocabulary from the songs, using a shared singing approach, discussing the meaning of a song, and walking around the room to provide individual support. Since lack of vocabulary knowledge and the skills to access pronunciation are common occurrences among struggling readers, it may be helpful for teachers to think of these tips as prerequisites of fluency practice rather than tips. Research has indicated strong effect sizes for students who have read passages aloud to an adult and for students who received corrective feedback from an adult (Therrien, 2004), underscoring the importance of adult/student interaction during fluency practice.

The medium of song may create a motivational attraction for students since it is very natural to want to sing songs orally and repeatedly. *Tune in to Reading's* alternative approach to fluency development addresses three characteristics mentioned in a meta-analysis by Guthrie and Humenick (2004) that may further serve to motivate and engage the older struggling reader. First, the program offers students

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an interesting means to develop fluency. Second, they have choice over which songs they may choose and whether or not to improve their singing. Third, a performance of their songs can be organized if the teacher chooses to do this, giving the students additional goal-oriented activities. Autonomy in making decisions can be a motivating factor in improving a student's perception of his/her reading (Walker, 2003).

Professional development for *Tune in to Reading* includes the research behind the program, literacy basics, and hands-on demonstrations of proper implementation protocol. *Tune in to Reading* cannot be purchased without purchasing the professional development package. The professional development is priced separately from the program and costs depend on the number of days contracted and the number of schools implementing within a district.

Research Support for Tune in to Reading

Tune in to Reading is a very new software program that assists struggling readers in fluency development as they sing songs repeatedly at the computer. It was originally developed from a software program entitled Carry-a-Tune that teaches users to sing with correct intonation and rhythm. As the software evolved and became a reading product, it was called SingingCoach before its present name. Several pilot studies with elementary, middle and high school students suggest that use of *Tune in to Reading* led to positive results. Additionally, there are several ongoing studies currently taking place. Another study with random assignment to treatment and control groups is presently being conducted jointly by MIT, Harvard, and the University of South Florida using *Tune in to Reading* to explore the relationship of musical training and improvements in language skills by examining how musical training may alter neural processing.

This report summarizes one quasi-experimental study that was conducted in a rural middle school in West Central Florida to evaluate the effectiveness of the singing software program, Carry-a-Tune, on students' reading development as measured by instructional reading level (Biggs, Homan, Dedrick, Minick, & Rasinski, in press). Students in 7th and 8th grade who scored at Level 1 or Level 2 on the Florida Comprehensive Assessment Test (FCAT, 2004) participated in the study. Using a pretest-posttest design, treatment group students (n=24) were matched with control group students (n=24) according to their FCAT scores, grade, and gender. Treatment and control students had the same language/arts teacher. More than 50% of both groups were on free or reduced lunch. To facilitate assessment and allow for small group administration, informal comprehension assessments called cloze tests were developed for this study by researchers from the University of South Florida. The graded passages from the Qualitative Reading Inventory-III (QRI-III; Leslie & Caldwell, 2000) were used to develop the cloze tests. In order to correlate the scores of these cloze tests with traditional one-on-one administration of the QRI-III, a third of the treatment group students and a third of the control group students were randomly selected to be administered the traditional QRI-III as well as the cloze passages. The assessments were used to determine students' instructional reading level for pretest, posttest and for follow-up tests 16 weeks after the intervention.

Treatment students used the software during their elective music class, three times a week for 30 minutes over the 9-week intervention. Students followed the protocol for implementation described earlier in this report. Control students were in other elective classes and were required to participate in at least 30 minutes of required reading time throughout the length of the study. A 2 (Group) x 3 (Time) repeated measures ANOVA was used to determine changes in the QRI scores.

Treatment group results indicated a statistically significant Group by Time interaction, $p < .001$ with an effect size of .69, and a moderate increase in effect size from posttest to follow-up, .40. At follow-up, the treatment group experienced a 1.37 grade level gain in instructional reading level, indicating that use of Carry-a-Tune had a positive impact on the reading level of struggling middle school students. The control group showed little change in instructional reading level during the intervention. Limitations to this study include lack of random assignment and a small sample size.

In summary, the strategy of repeated reading derives from a strong research base. A beginning level of support for *Tune in to Reading* is demonstrated by the previous study. Future studies with random assignment, larger sample sizes, and standardized assessments that include an oral fluency measure may help determine to what extent *Tune in to Reading* improves the reading growth of struggling readers.

Strengths & Weaknesses

Strengths of *Tune in to Reading*:

- Repeated reading has a strong research base.
- Singing as a medium for repeated readings may provide struggling readers with the motivation and engagement that are often missing due to previous lack of academic success.
- Students are practicing reading and (singing) words in a meaningful context.
- Software is easy to navigate for teachers and students.
- The repeated listening and singing process is explicit and systematic.

Weaknesses of *Tune in to Reading*:

- Word accuracy is not explicitly addressed. This is easily added into the program if the suggestion in the teacher's manual about modeling songs, preteaching difficult words, and shared singing becomes a requirement rather than an option.

Which Florida districts have schools that implement Tune in to Reading?

Alachua	352-955-7880	Hillsborough	813-272-4050	Polk	863-534-0521
Brevard	321-631-1911	Monroe	305-293-1400	Volusia	386-734-7190
Collier	239-377-0212	Orange	407-317-3202	Walton	850-892-1100
Dade	305-995-1430	Pasco	813-794-2651		
Hernando	352-797-7001	Pinellas	727-588-6011		

For More Information

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Important Note: FCRR Reports are prepared in response to requests from Florida school districts for review of specific reading programs. The reports are intended to be a source of information about programs that will help teachers, principals, and district personnel in their choice of materials that can be used by skilled teachers to provide effective instruction. Whether or not a program has been reviewed does **not** constitute endorsement or lack of endorsement by the FCRR.

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