
Welcome, Howard! Thank you for joining me today.

Howard Wills: Thanks for having me, Lorraine.

Lorraine Sobson: I'd like to start our conversation by defining some of the terms to frame our conversation. Can you tell me, what is a *group contingency*, and how is it appropriate for Tier 1 support?

Howard Wills: Sure. Group contingency is an intervention where a reward is provided contingent on the behavior of one or more students within a group, such as a class. Variations of group contingencies can include dependency of the reward on the behavior of one student or the group, and interdependency of the reward on members of the whole group. So you can have the dependency of the reward on one or two kids or on a larger group of kids. The interdependent group contingency is particularly appropriate as a Tier 1 support, as we like to consider it kind of building a better nest to support all students in a class and their learning.

A teacher can use an interdependent group contingency to recognize and reward the behaviors of most valuable to success in the classroom for him or her. It provides the teacher with a structure that is efficient and effective for rewarding students and helps ensure that the reinforcement is available to each student. If a teacher were to use contingent-specific praise, or praise combined with some type of ticket or token system, then the effectiveness of this system greatly depends on the recognition of students with the most challenging behaviors or those that would be withdrawing, maybe not causing disruptions, yet also not getting much done.

With the group contingency, the class can be divided into two or more teams. We often recommend four to six. At multiple times during the class, the teacher can stand and recognize each team, which is an efficient way to look out for all students.
Lorraine Sobson: Another element of this particular intervention is self-management. What is self-management, and how does it work as a Tier 2 support?

Howard Wills: Self-management as a school intervention includes a set of strategies, such as self-evaluation, goal setting, self-monitoring, and rewards based on performance. The most common strategy under the umbrella of self-management is self-monitoring, during which a student observes the presence or absence of their own behavior, such as “am I on task?”, and they record that observation. This is commonly used in effective support for students that are unresponsive to a good set of Tier 1 support. So teachers using self-management with one or a few of their students in a class often use a paper-and-pencil version and use some type of timing or cuing device, such as a motivator, to cue the students when to observe and when to record their response.

The teachers also typically set some goals, such as 8 of 10 responses of “yes, I was on task,” which leads to a reward at the end of class or at the end of the day. It is often recommended that teachers train well and do some spot checks for agreement with students that they self-monitor.

Lorraine Sobson: Now, what is the research support for group contingencies and self-management as evidence-based practices?

Howard Wills: There’s a long history of evidence supporting both group contingencies and self-management intervention. Reviews support the use of both interventions with a variety of students across a range of grade levels, with the bulk of the support being based in studies at elementary schools. Most of the outcomes involve improvements in engagement and reductions in disruptive behavior with fewer outcomes based on results around academic improvement.

Lorraine Sobson: I see. Well, now that we’ve got the basis for our discussion set, what is a class-wide function-related intervention team, or [a] CW-FIT, program? And what are its components?

Howard Wills: While other group contingency interventions exist, we developed CW-FIT in response to the need for a tiered system that supported positive classroom environment, including the use of teacher praise. To us, it brought the important aspects of schoolwide PBIS into the classroom. It also broadly addresses the most common functions of problem behavior, attention, and escape, along with contingent access to preferred activities.

The CW-FIT program is what we call an interdependent group contingency with embedded tiers of support. At the classwide, or Tier 1, level, a teacher, most commonly elementary, divides their class into four to six teams, teaches three expectation lessons, posts the expectations, uses a timer during academic lessons to intermittently recognize teams, and award points to those teams that are following the expectations.
An important component of CW-FIT, which is emphasized in everything we do, including the fidelity form, is the use of praise. When a teacher awards points, they specifically praise the group or individuals in those groups. At the end of an academic lesson, the teacher tallies the points, and teams meeting the pre-specified goal, say maybe 15 points for the lesson, those teams then receive the reward.

We generally emphasize rewards being quick activities that the students have chosen, and some teachers will integrate reward-program tickets that are utilized in the schoolwide PBIS program, or some teachers will use tangible rewards.

So, that’s the Tier 1 level. At the Tier 2 level, students are unresponsive to CW-FIT. That’s assuming that it has been done with fidelity and given ample time to determine effectiveness, maybe 2 to 3 weeks. Those students who are unresponsive can receive brief self-management training, and then they would implement the self-management during the course of the lesson, during the time that the teacher is implementing CW-FIT.

We’ve also used a strategy we call “Help cards,” which is a simple strategy that allows the students to use some tickets that say Help and get help from a peer or from the teacher as they need it.

For students still unresponsive to the Tier 2 supports, we recommend that a school-based behavior team coordinate with the teacher to conduct a functional behavioral assessment of the problem behavior, so they get more individualized [support].

Lorraine Sobson: Now, what does the research say about CW-FIT, and what did you and your team want to contribute to the research?

Howard Wills: We have numerous single-case design studies supporting the use of CW-FIT as an intervention for improving on-task behavior and reducing disruptive behavior in elementary school students. With the first randomized control design study of CW-FIT, with this study, we wanted to contribute to the rigor in evaluations of CW-FIT. We were fortunate enough that the importance of the program and its rigorous evaluation was recognized and funded by the Institute of Education Sciences.

Lorraine Sobson: Can you tell me a bit about the parameters of your study, such as who participated, how many schools, what grades, how many students? And how did you select the students and teachers?

Howard Wills: Sure. First, we started with 17 elementary schools, generally grades K–6. Most of these schools were in urban areas. We then recruited 313 students that were divided up between experimental and control group classes where, out of the total number of classes for this study, we had 159 participating classrooms. So a pretty large number. 25% of the students happened to have an IEP, but all the students met screening criteria based on their problem behaviors.
Each of the 17 schools that participated in the study participated for 1 year of the 4-year study. A school baseline was conducted in the fall, and then we implemented intervention for half the teachers and we measured through the spring. But the classrooms that did not make it into the intervention group—they were provided the intervention come spring, once the study was completed.

In each of the schools, we generally tried to recruit eight teachers. Within the school, then, if we had recruited eight teachers, four of them were assigned to the intervention group, and four of them were randomly assigned to the control group.

Lorraine Sobson: What does CW-FIT look like on a day-to-day basis?

Howard Wills: Once the teacher has already set up those teams and introduced expectation lessons or skills, a daily class lesson with CW-FIT being implemented starts—so during their regular course of math or during their regular course of reading, the teacher would begin with a very brief pre-prep or a reminder of the expectations. Then a goal is announced. For example, today's goal might be 15, and the reward notice. We're working for a couple extra minutes of talk time. The teacher then teaches and works with his or her students as anyone would, and instruction goes on as normal. The teacher uses a kitchen timer or other timing device, which prompts the teacher and announces to the students that a check is occurring.

So the teacher's teaching along and the timer goes off. They'll turn off the timer and they do a quick check. If the teacher is in the middle of saying something or in the middle of something, working maybe one-on-one with a student, they wait until that's done, and then they complete the check. The check is a quick scan of the group with praise and points awarded to each team, that all members in that group are following the expectations.

If a team or an individual on a team is not following the expectations, the teacher is trained to simply note what the expectation is and not give sustained attention or a series of reprimands. Initially, the checks or how often these intervals go off may be frequent, even every three to five minutes. Yet as things are successful over time, this length of interval is extended.

At the end of the class period, at the end of math or at the end of reading, the teacher announces the teams that met the goal, and they're rewarded a quick activity. Again, we emphasize quick rewarding activities that the class is given input into. We've had classes work for things like just a little bit of time with their feet on their desk or a little bit of talk time or a quick fun math activity.

Lorraine Sobson: I was just laughing at the idea of the feet on the desk. I guess if it's the group decision…. Now, you chose to use MOOSES, Multiple Option Observation System for Experimental Studies, to collect data. Why did you choose this system, and how did it work?
Howard Wills: Our research team has chosen MOOSES across a number of studies as it is, in our opinion, for the price, the best we've found to keep real-time data on a set of behaviors, including duration and frequency coding. The program, which is available through Vanderbilt, allows you to fully customize the presentation on the screen. So in your tablet, you can fully customize what the items are that you're going to code. Then when you start the observation, you simply then touch the buttons on the screen to either record a frequency event or to toggle back and forth for a duration code, such as if a student's on task or not.

Lorraine Sobson: Now I'd like to focus on the results. How did CW-FIT affect on-task and disruptive behavior in the treatment group, and how did this compare to the control group?

Howard Wills: The improvement in on-task and the reductions in disruptive behaviors were significantly better for the intervention group compared to the control group. For example, the intervention students went from being during baseline on-task 65% of the time to 87% on-task with CW-FIT, while the control group went from a baseline of 65% and stayed similar to that at 67% without CW-FIT.

Those are great gains in the amount of learning time that these students had. In addition, we saw significant reductions in disruptive behavior, which also contributed to a better classroom atmosphere and a lot more time for teachers to be able to teach and a lot more time for students to be able to learn.

Lorraine Sobson: Yeah, that is pretty impressive. How did CW-FIT affect teacher behaviors in the treatment group?

Howard Wills: Teachers began praising, and praising a lot. Teachers significantly improved their praise and also reduced the reprimanding. We think these improvements in the measurement of teacher behavior is an important aspect, not only for the CW-FIT study, but of all school-based intervention research.

Lorraine Sobson: Now, did gender appear to be a factor in any of your results?

Howard Wills: As would be anticipated with looking at challenging behavior in elementary schools, nearly three fourths of our participants were male. Regardless of gender, both the male and female [students] improved, yet notably the females had less disruptive behaviors at baseline.

Lorraine Sobson: What were the results for students who received Tier 2 interventions?

Howard Wills: 23% of the students in intervention classes were identified as needing additional support or the Tier 2 support. Although these students had improvements in on-task behavior and reductions in disruptive behaviors, they generally, with the onset of tier two, with getting self-management or a few of them [getting] Help cards, with the onset of Tier 2, it reduced their disruptive behavior to one third of the original
baseline levels. For most of the students, this put them in the range that was acceptable in the classroom. That is, they were looking like their peers.

Lorraine Sobson: How did your results compare to previous studies of group contingencies?

Howard Wills: The results add to the literature on group contingencies, and more specifically to the rigor that is needed for studies of group contingencies. We also, again, think that the added features of measurement of how the teacher behavior changed was an important addition to this literature.

Lorraine Sobson: In your article, you mention a need for future research regarding the individual components of CW-FIT. What future research on this topic would you recommend?

Howard Wills: We have recently completed a second randomized control trial of CW-FIT, and we'll be sharing those results as we analyze and then get them out for a publication. But for now, I think future research is needed to extend studies of CW-FIT to different grade levels and examining academic gains to be made. In addition, we would fully support independent studies of the intervention, particularly those that will attend to the fidelity of the intervention as we have designed it.

Lorraine Sobson: Well, thank you for talking with me today, Howard.

Howard Wills: Thanks again, Lorraine.

Lorraine Sobson: Howard’s article, “Student and Teacher Outcomes of the Class-Wide Function-Related Intervention Team Efficacy Trial,” is published in Volume 83 of Exceptional Children. Exceptional Children is a publication of the Council for Exceptional Children. To learn more about CEC, visit CEC.sped.org.