The Color Wheel System: Better classroom management by breaking the rules for classroom

Christopher H. Skinner, Professor
School Psychology and Applied Behavior Analysis –
The University of Tennessee, Knoxville
cskinne1@utk.edu

Objectives

Those who attend workshop will acquire an understanding of:

Classroom rules:

1. Problems with common classroom rules
2. Challenges with activity transitions
3. How the CWS system address them
4. The evidence base supporting the CWS
5. How to install and maintain the CWS
6. Common errors when applying the CWS

Credit Others

I did not invent CWS - I learned CWS this at Centennial School, Lehigh Laboratory School of EBD students.

2. Was run used across rooms, all the time (K-12).

3. Developed by Drs. Deb Dendas, Gina Scala, and Ed Lentz

Working on classroom management procedures and having an adult beverage, Dendas looks out the window at a traffic light.

I have supervised a consultation practicum for about 32 years. My students would get referrals for a particular child. The would observe and it seemed like a lots of inappropriate behavior from many students – Thus, we need class-wide intervention – starting applying CW – worked well in general ed rooms and we starting doing cause and effect research.

Why present CWS Today

Talking with Ronnie – he suggested CWS or Tootling (which I did invent).

Went with CWS because:

- More examples of success across behaviors, students, etc.
- When working with one teacher, other teachers asked to be trained, was asked to train entire school.
- Teachers and children liked it.
- Works without systematic R+ or Punishment.
- Worked when implemented with poor integrity

I: Transitions and Rules

Transitions Defined:

- Switching from one activity to another
- Switching from one location to another
- Combination of both.

Three transition steps:

- End Something
- Transition
- Begin Something Else

I: Transitions and Rules

What Goes Wrong During Transitions?

Those finished with activity before transition starts:

Get loud, Leave area, Get into other activities,

Inappropriate verbal behavior, Inappropriate social behaviors (hands and feet).

Those not finished: Difficulty stopping yields difficulty starting anything new: poor attention to directions/instruction,

repeat directions/instructions (real time consuming). Nattering - reprimanded, student denies doing something wrong, punish, - starts time consuming chain of events.

I: Transitions and Rules

Inefficient transitions

takes a huge amount of time decreasing

Educators' time to teach students' time to learn

Unstructured transitions occasions disruptive and antisocial behaviors and teachers often have to deal with these behaviors (make decisions, record, deliver consequences) which further

1. decreasing teaching and learning time
2. is often dealt with via punishment which reduced classroom climate and many other side effects

I: CW Transitions and Rules

Even teachers with many years of experience often have difficulty occasioning efficient transitions from one activity to another (Alger, 1984; Connell, Carta, Lutz, Randall, & Willison, 1993; Sainto, 1990).

I: CW - Transitions and Rules

Goal: Efficient transition

Efficient transitions from one activity to another will:

1. Require **little time and effort.**
2. Decrease probability of incidental inappropriate behaviors.
3. Increase time available for instruction and learning (Dawson-Rodriques, Lavay, Butt, & Lacourse, 1997; Rice & Spetz, 1982).
4. Keep all from becoming frustrated (hassles – a terms researcher working on heart health developed) over disruptions, having to repeat self, time press

I: CW Transitions and Rules

Function or purpose of Rules:

Rules are Stimuli that establish:

1. Collective behavior expectations that define and shape behaviors of students and teachers.
2. Provide order, discipline, control over students to protect people.
3. Allow learning to occur unimpeded (Casella, 2005; Fields, 1997; McGinnis, Frederick, & Edwards, 1995).

I: CW Transitions and Rules

Characteristics of Effective Rules:

Rules should be known and reasonable:

I. Known

Posted, Clear, Concise, Few in number (Salient)

II. Reasonable

Target essential behaviors, Consistent with school rules, Specify desired behaviors, Activity specific. Make since (easy to learn).

Goal – student success with rule-following

Write down classroom rules

- Just dot down yours or some you have seen.

What did you write

- Are they clear or very general (e.g., good citizenship, be kind, be respectful)?
- Are they in place for all activities?

“Hands and feet to self” –

Not for Duck-Duck-Goose!

I: CW Transitions and Rules

Problems with Classroom Rules

Activity Specific:

Most classroom rules are **too general** and **continuous**. One set of rules designed to cover so many different classroom activities can't provide clear expectations for specific behaviors. Thus, we tend to use general or vague rules that do not clear specify behavior expectations

I: CW Transitions and Rules

CW system provides

1. **multiple sets of specific rules, with each set used for different common classroom activities.**

CSW also includes

2. **Procedures for transition from one activity to another as one transitions from and one set of rules to another.**

Finally, CWS works best when teacher has

3. **Expectations – that most will follow these rules**

I: CW Transitions and Rules

High Expectation for following rules:

1. In most all instances each student **can follow** classroom rules.
2. Do not start with large list of punishment contingencies that you may not be able to implement consistently.
3. When you specify all of this (behavior and punishment) you are setting expectations that they will not follow the rules.
4. Reinforce (incidental praise rule-following) – save more potent and systematic R+ for other behaviors (e.g., academic performance).

II: CWS Goals

Two Goals:

1. Occasion desired rule-following behavior.

2. Transition from one set of rules to another, as you apply routine (repeatable) procedures to transition from one activity to the next.

More teaching, learning, and fun time because less time spent on (1) transitioning (2) dealing with inappropriate Behavior – Nattering.

III: CWS: Components and Procedures

Component:

Color wheel: stimuli (rules, wheel, warnings) & procedures.

General Overview:

Establish Transition R**outines**

<u>End one activity</u>

1. Warning activity about to end (verbal)
2. Cue or signal to stop activity (verbal & Visual CW)

<u>Transition</u>

3. Clear introduction of next activity
4. Clear communication of expected behaviors of those who finish next activity early.
5. Clear behavioral expectations for next activity

III: CWS: Components and Procedures

Why is CWS different?

1. Different rules for different classroom activities.

Rules are activity specific, reasonable, consistent, clear, concise, posted, repeatable (known or easily learning).

2. Routine Transition Procedures: helps in transitioning from one activity to another

Procedures are efficient, consistent, used across situations, (repeatable and repeated), thus become routine

3. Goal and focus on **student success** with following rules and efficient transition, not catching and punishing rule-breaking.

III: CWS: Components and Procedures

Device to indicate current classroom rules that are in effect:

Three colors: RED, YELLOW, GREEN – We have added a fourth, Purple, for small group activities.

SHOW WHEEL

Each color signifies a different set of rules which are used for different activities.

III: CWS: Components and Procedures

RED Rules:

Use when want to speak to entire class – get undivided attention, cease one activity so can start another – in other words **USE FOR TRANSITIONS**.

Red Rules

1. Desk clear
2. Seat in seat ("in area"- good for floor activities)
3. Eyes on teacher (speaker)
4. No talking
5. No hand raising (ready position).

Causes all to stop and activity and attend.

III: CWS: Components and Procedures

YELLOW Rules:

Use for “work time” - recitations, independent seatwork, SOME academic games, tests.

Yellow Rules:

1. Raise hand and get permission to leave seat
2. Raise hand and get permission to speak (not “no talking”)
3. Eyes on speaker or work (not “on-task”)
4. Follow directions (great catch all – “your direction is…”)
5. Hands and feet to self

Allows teacher to managing behavior across many learning activities

III: CWS: Components and Procedures

GREEN RULES:

Use for free time, socialization, group projects, art.

USE AS A REINFORCER!

Green Rules

1. Use inside voices
2. Respect others
3. Hands and feet to self
4. Follow all directions

Allows for many other activities

IV: CWS: Example

Situation: Students working on seat-work in math (Yellow).

1. Teacher announces *In 2 minutes the color wheel is going to Red.*
2. Then the 30 second warning – *In 30 seconds the color wheel is going to Red.*
3. Teacher walks to front of room and **before turning wheel and** says – *Nice job working. What are rules for Red?*
4. Students raise hands. One called on to recite (or read) rules for Red and student recites rules.

IV: CWS: Example

5. Teacher praises student for reciting.
6. Turns wheel to Red.
7. Looks at students and praises for following Red rules:

   Desks cleared and eyes on me. Nice job class!

   (incidental R+)
8. **Quickly** gives introduction and instructions for next task.
9. Moves wheel to yellow, hand go up and teacher deals with stuff (forgot workbook, I need a pencil…….). Then begins next lesson and is less likely to have teaching an learning time interrupted with stuff.

IV: CWS: Example

Situation: Red, class looking at you –transition to reading.

1. Introduce Activities –

   We are now going to begin reading. I will be working with small groups at the reading table. When I turn the color wheel to Yellow I want everyone to take our their reading book and reading workbook and begin working on the assignment on page 12.

- *When I call your group up quietly come to the reading table with your reading book.*

IV: CWS: Example

2. Turn color wheel to Yellow, ask if there are any questions (remember they cannot raise hand on Red).
3. Deal with stuff.
4. Give direction for Group A to move to the reading circle (remember - follow directions on yellow).
5. Now can stay on Yellow for remainder of reading time -

giving each small group directions to move to and from teacher led instruction table

– you may also want to give them time warnings, rotate in 2 min.

IV: CWS: Example

Situation: Finished with final reading group - all in seat working independently (Yellow).

1. Warn going to Red: 2 minutes.

   may ask students to raise hand so you can collect their work).

2. Give 30 second warning.

3. Walk to front of room, move color wheel to red and introduce next activity while all paying attention to you!

V: CW - Implementation

1. Teach rules, Re-word to make briefer (easier to recite)

Let students abbreviate: seat in seat, eyes on speaker

2. Remind and have students read and recite rules
3. Post rules - BIG PRINT – So all can read.
4. Post rules near color wheel in front of class - eyes now on rules, wheel, and teacher.
5. Color wheel always on –

What color when enter room?

6. Two warnings: 2-minute and 30 second warnings

Can you change temporal warnings? – art class.

V: CW - Implementation

7. Almost always use Red when transitioning

   * Green to Red

   * Yellow to Red

- Not Green to Yellow, But Green to Red to Yellow
- Not Yellow to Green , But Yellow to Red to Green

Do this so that they have stopped an activity and you have their attention for the next activity.

Later may be able to get loose - but not in beginning

8. Praise students for following rules.
9. In the beginning have students recite (read) rules in beginning before or immediately after turning the wheel.

V: CW - Implementation

10. Can fade warnings, recitation, and praise as year goes on.

Most teachers did not do this.

11. Quick time on Red.

Hardest to follow, you want rule following.

12. Use Green as reinforcement

YES, YES, YES

13. Do not use Red as punishment – want them following rules.

Class-wide punishment causes many negative side effects.

14. Ignore or briefly prompt those not following rules.

15. Sabotage (intentional) always ignore - do not prompt as often doing this for attention.

16. Keep all other programmed contingencies (reinforcement and punishment) in place, IF YOU WISH.

V: CW - Implementation

17. If R+ good color wheel behave, then reinforce entire class, this is a class-wide procedure.
18. Make it fun - not life or death, not punishment focused.
19. You turn the wheel (not students).
20. Remember – expect them to follow rules.

Remember: Changing habit is hard – student reminds teacher.

In the beginning of year try to be consistent. Change up after you and students used to routine – new student enters and may need to tighten up.

But be kind to yourself and realize CW works even when not implement with perfect integrity (My kind of Intervention).

VI: CW - Research

Show me the Data:

At Centennial used from beginning of year, all grades.

Did not know if it worked, because nothing to compare it to.

Our data showed it worked in general ed classrooms.

Tier 1 application, but we often used to address problems.

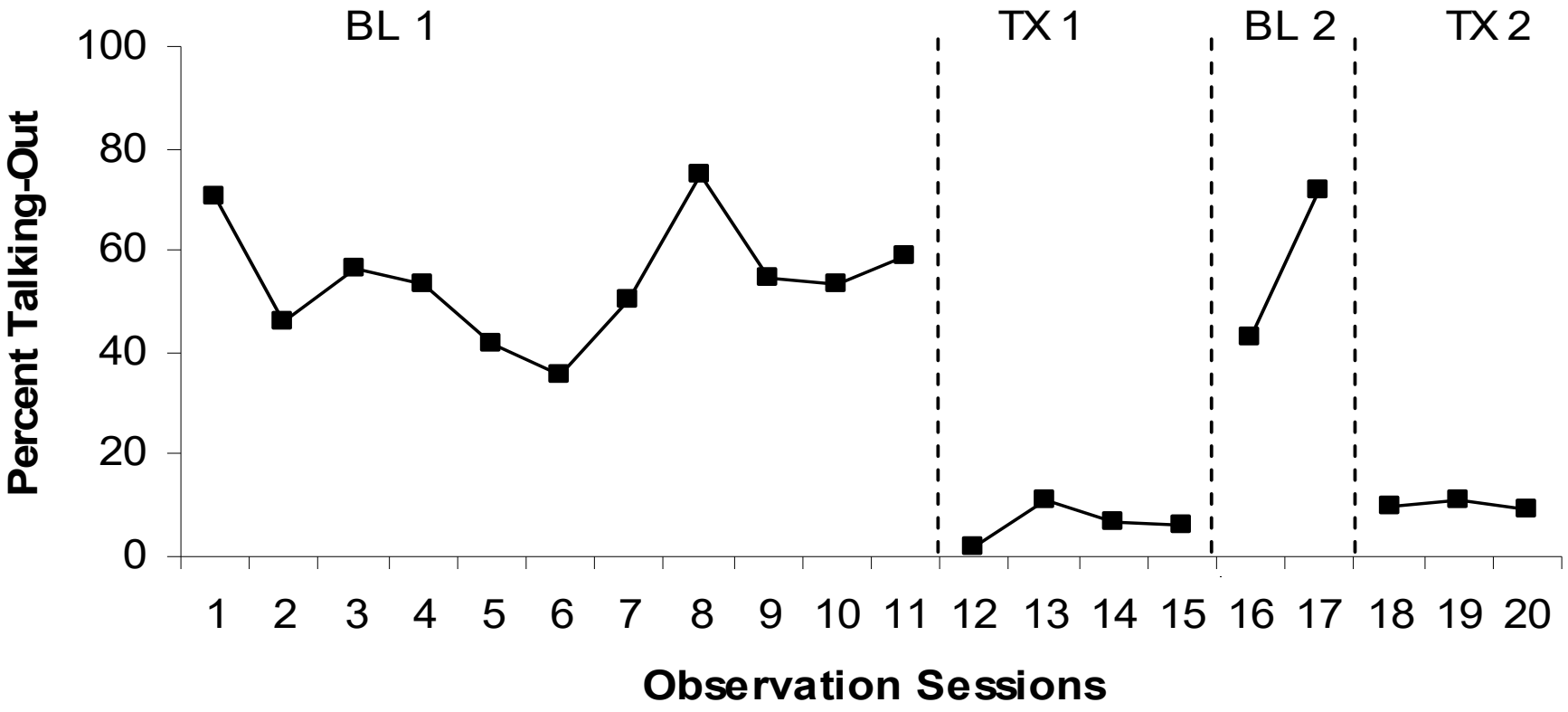
VI: CW - Research Fudge et al., 1st study.

4th-grade inner city Classroom: Refer for one or two students and DO showed management problem

- Dependent Variable – talking at inappropriate times (calling out, talking with others under Yellow or Red)
- 20 minute intervals (9:20—9:40 each day there)
- Partial interval – 3 second observe, 2 second record

VI: CW - Research

Why the 2 day withdrawal phase?



VI: CW - Research
Fudge et al., 1st study

Worked but a primary limitation:
Teacher (school) used independent group-oriented response cost system. Each students starts with 100 points and looses them for misbehavior. Loose enough points and loose privileges.

When Color Wheel was in place – teacher reported that it was easier to identify and immediately punish (take points) for misbehavior because

- Clear (to teacher) what is misbehavior

So what caused change – better implementation or response cost system (more immediate and consistent punishment) or Color Wheel?

VI: CW – Research-Fudge et al., 1st study.

Limitations:

1. Reduced Inappropriate Behavior: quiet, docile, still?
2 Group Measure: what about behavior of worst behaving children?
3. Weak Integrity data
4. Weak Acceptability data
5. Interaction effect - improved punishment caused the change.

VI: CW – Research- Study 2: Fudge's Diss

Purpose: Address limitation of earlier study

CW Intervention is the same school and same teacher –

1. Second- grade inner city Classroom: 12 Students.

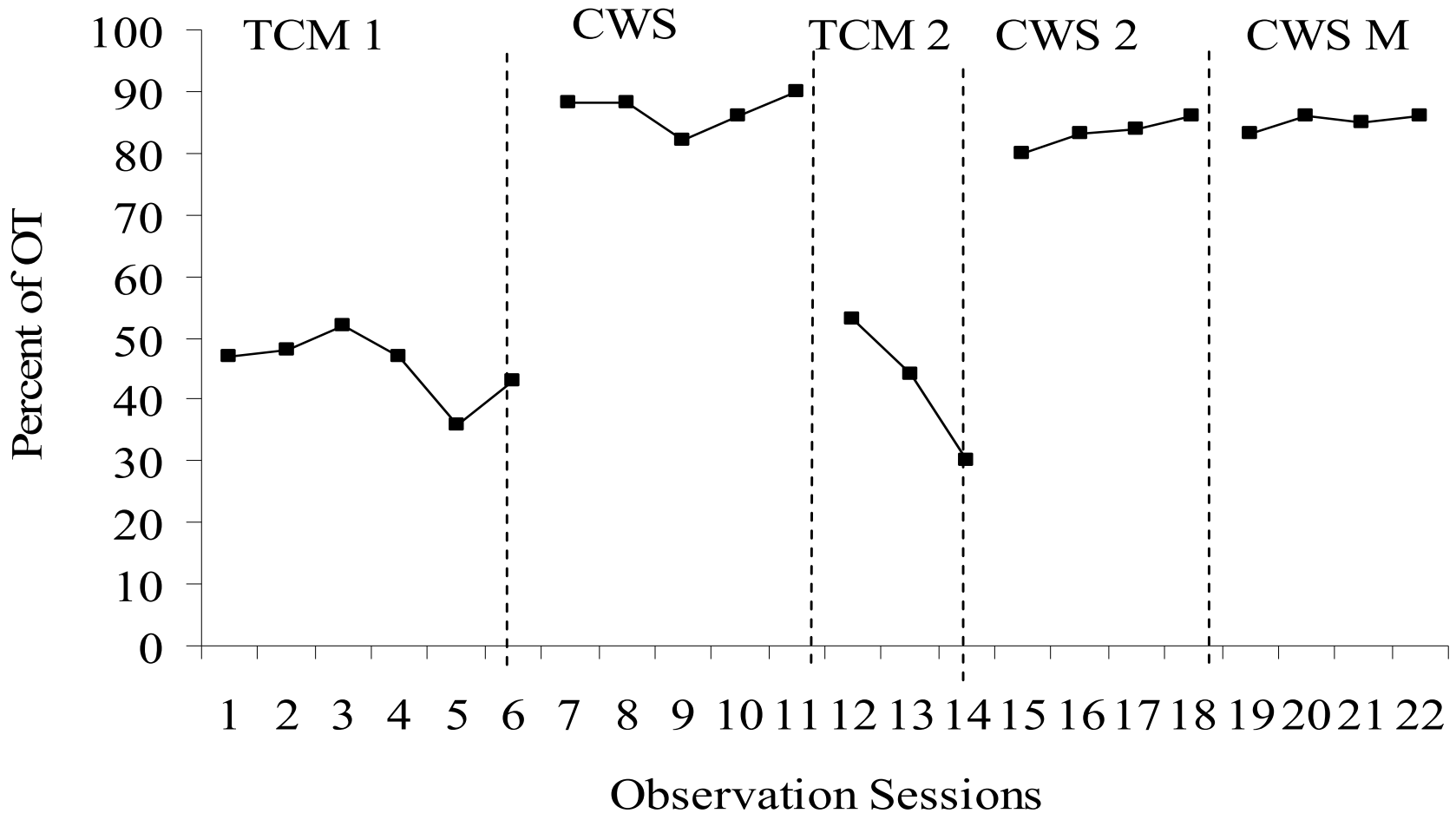
2. During CW intervention phases the teacher never took points – suspended the response cost system (but did not tell them). Needed lots of permissions to do this.

3. Measure On-Task (oriented toward speaker or work or following directions). Desired behavior

4. Measured behavior of group and all students.

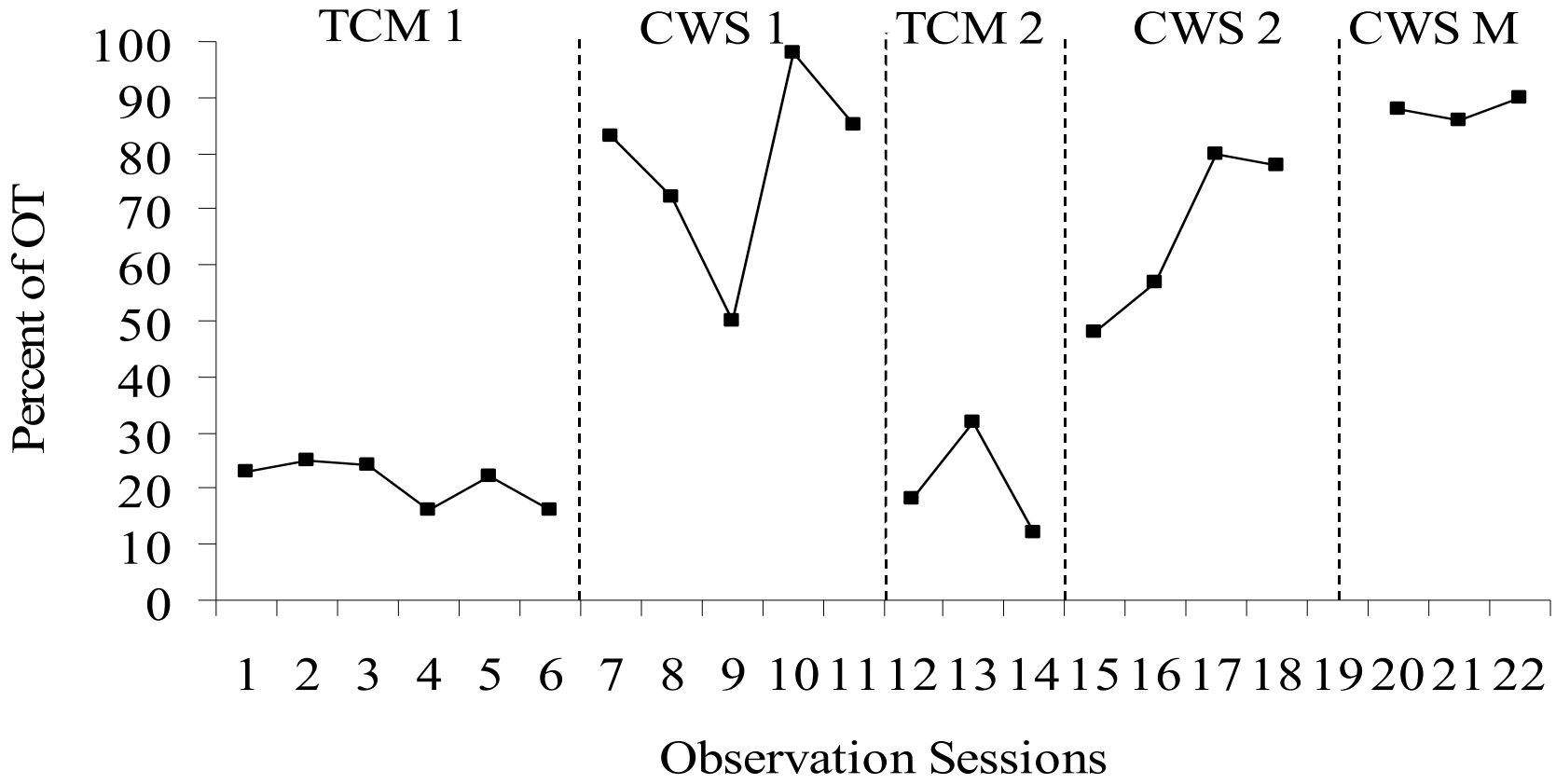
VI: CW Study 2: Fudge's Dissertation.

Class Average Data



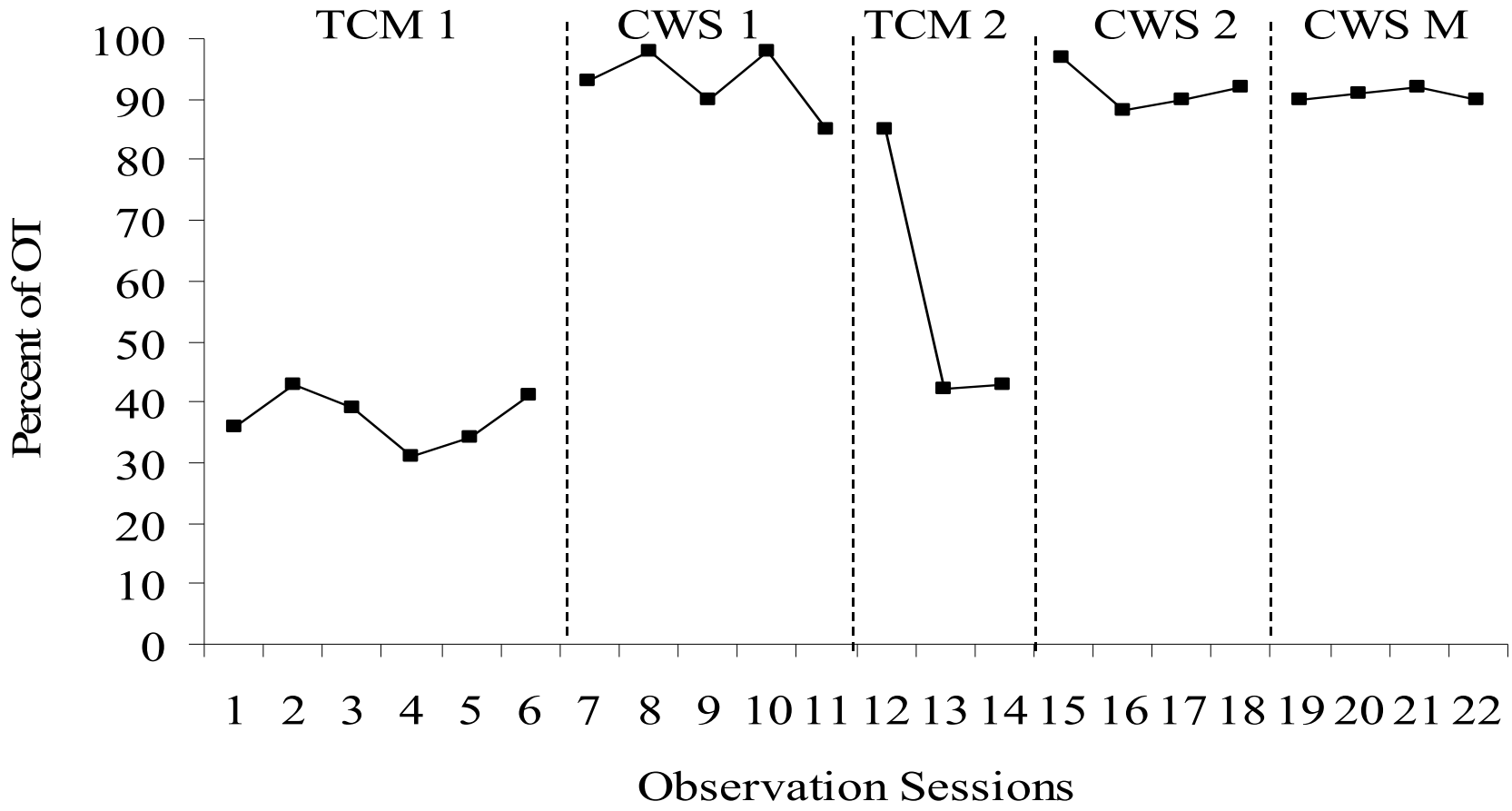
VI: CW - Research Fudge's Dissertation.

Data from lowest students (Student 1)



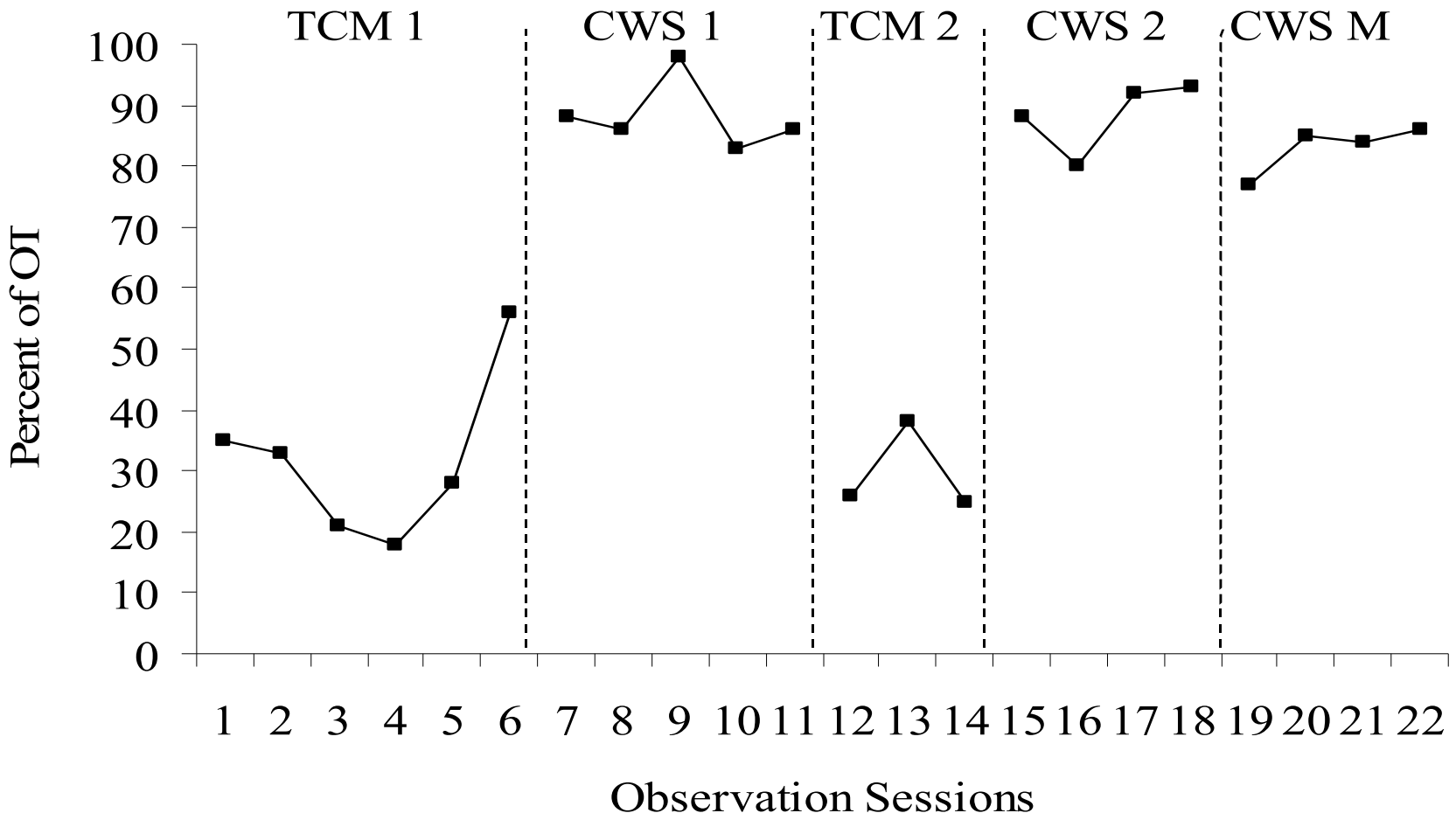
VI: CW – Research Study 2: Fudge's Dissertation.

Data from lowest students (Student 11)



VI: CW Study 2: Fudge's Dissertation.

Data from lowest students (S12)



VI: CW - Research Study 2: Fudge's Dissertation. Data from all Students

Individual Student Mean and Standard Deviation Across Phases

Student	B1	T1	B2	T2
1	22.5 (6.3)	77.6 (17.9)	20.6 (10.2)	65.7 (15.7)
2	71.3 (14.9)	91.4 (2.6)	56.7 (18.5)	94.0 (6.9)
3	59.3 (18.0)	95.0 (3.1)	37.3 (17.2)	99.0 (1.2)
4	60.0 (11.5)	93.8 (5.4)	42.7 (2.5)	94.3 (5.5)
5	47.1 (23.1)	74.6 (23.4)	56.0 (5.1)	75.0 (14.0)
6	50.1 (28.8)	80.2 (14.3)	32.5 (20.5)	52.8 (21.0)
7	42.5 (6.7)	81.4 (9.3)	45.7 (20.1)	83.3 (6.1)
8	42.7 (13.2)	87.4 (4.1)	40.7 (30.7)	88.3 (9.6)
9	43.3 (21.5)	81.2 (15.3)	31.0 (16.5)	75.0 (6.2)
10	67.6 (14.5)	94.6 (4.4)	48.3 (13.5)	89.0 (8.5)
11	40.0 (6.2)	92.8 (5.5)	56.6 (24.5)	91.8 (3.8)
12	38.3 (16.3)	88.2 (5.8)	29.7 (7.3)	88.3 (5.9)
Grand X (SD)	48.7 (13.7)	86.5 (7.2)	41.5 (11.8)	83.0 (13.5)

VI: CW - Research Study 2: Fudge's Dissertation. Adjacent Phase ES Data from each student

S.	Treatment Effect 1 CWS1-TCM1	Treatment Effect 2 CWS2-TCM2	Withdrawal Effect TCM2-CWS1
1	8.7	4.4	-5.6
2	1.3	2.0	-3.4
3	1.9	3.6	-3.3
4	2.9	20.6	-20.4
5	1.2	3.7	-3.6
6	1.0	1.0	-2.3
7	5.8	1.8	-1.7
8	3.4	1.5	-1.5
9	1.8	2.7	-3.0
10	1.9	3.0	-3.4
11	8.5	1.4	-1.5
12	3.0	8.0	-8.0

VI: CW - Research Study II Fudge Diss

All student improved (ES = 1), none got worse.

Was not caused by response cost being implemented with more integrity.

Teacher liked it, but students really liked it – reported that allowed them to know what was expected of them at any given moment in time.

VI: CW - Research Study II Fudge Diss

Student Acceptability

	Agree
I liked the Color Wheel.	100%
Using the Color Wheel helped me to know which rules to follow.	100%
I would like to have the Color Wheel in all my classes.	92%
The Color Wheel helped me behave better.	92%
When the Color Wheel was not used I did not know what rules to follow.	100%
I liked having the rules posted at the front of the class.	100%

VI: CW - Research Study II Fudge Diss

Student Acceptability

	Agree
The Color Wheel made going from one activity to another easier.	100%
The different colors for different rules made it easy to know what rules to follow.	100%
I liked having 3 sets of small rules to follow instead of one longer list of rules.	100%
My classmate behaved better when the Color Wheel was being used.	100%
My classmates transitioned without disrupting class when the CW was used.	100%
My classmate misbehaved more when the Color Wheel was not used.	100%

VI: CW - Research Study II Fudge Diss

Teacher Acceptability

Likert Scale Strongly Disagree (1) to Strongly Agree (6)

1. The Color Wheel was a good intervention-6.
2. I noticed students' behavior improved when the CW was used-5.
3. Transitions were easier when I used the Color Wheel-5.
4. The Color Wheel quickly improved students' behavior-6.
5. I will use the Color Wheel for the remainder of the year-6.
6. I will use the Color Wheel with future classes-5.
7. I would recommend the Color Wheel to other teachers-6.

VI: CW - Research Study II Fudge Diss

Teacher Acceptability

8. Most teachers would find the Color Wheel appropriate to deal with classroom behavior-6.
9. The Color Wheel helped me stay consistent-6.
10. I spent less time disciplining students when using the Color Wheel-6.

Totals = 7 Strongly Agree, 5 Agree.

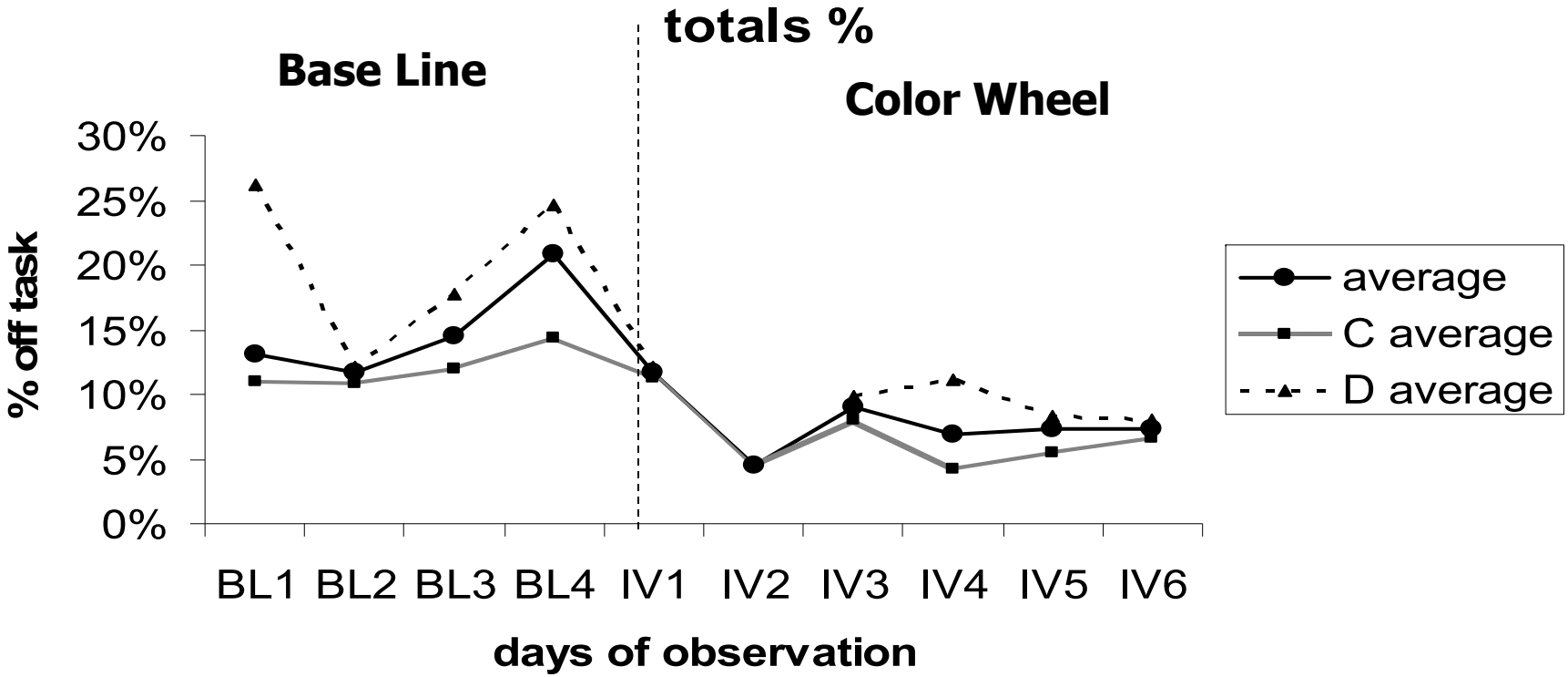
VI: CW - Research Study II Fudge Replication and Extension 1 - Stephanie

The A-B Empirical Case Study

* Kindergarten classroom

- Dependent variable – off-task behavior
- Three sets of data – carpet, desk, and average of the two.

VI: CW - Research Study II Fudge Replication and Extension 1 - Stephanie



VI. CW Research: Replication and Extension 2 - Briana

First-grade class of 20 students (one major concern).

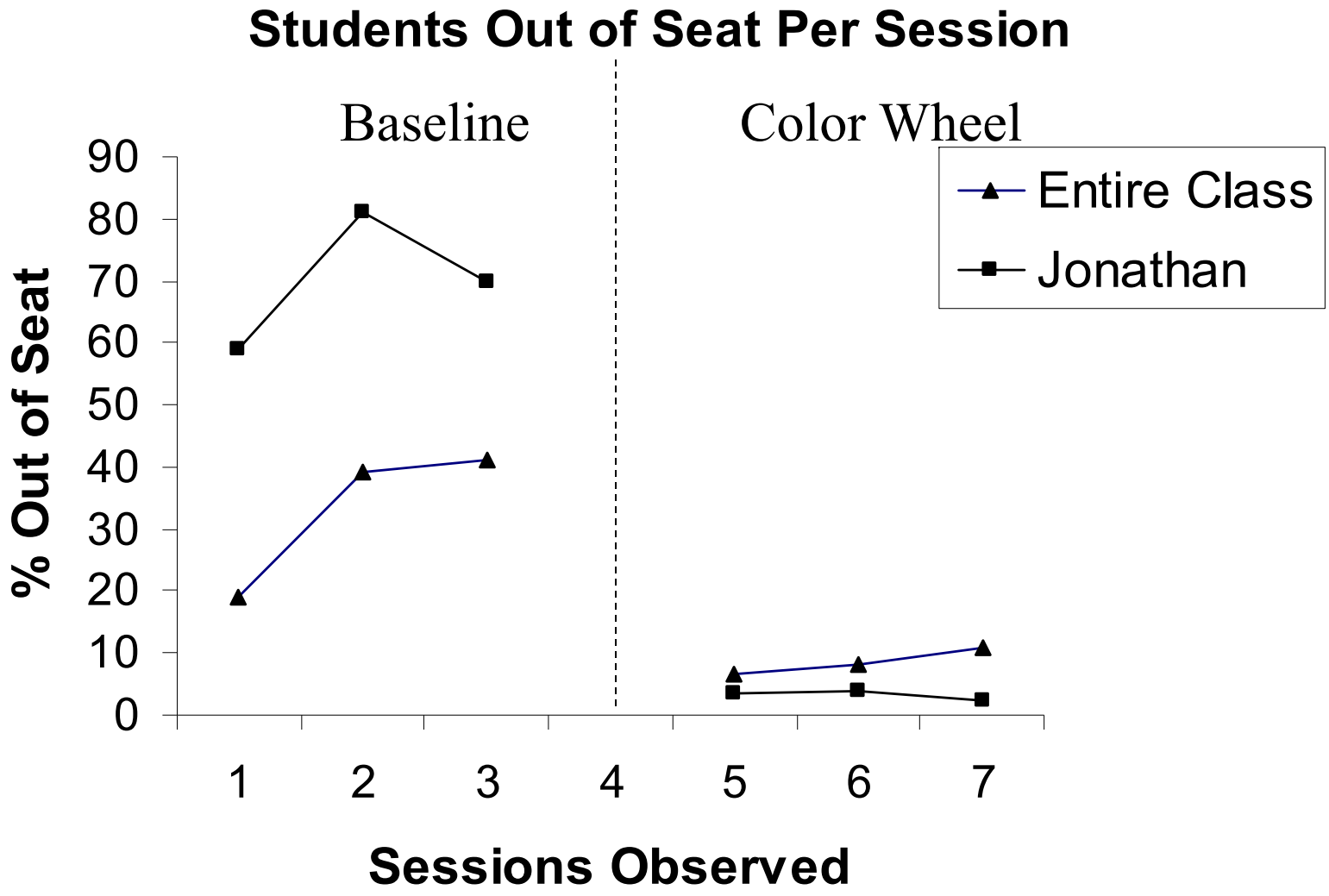
Dependent Variable – out of seat.

Interdependent Group Contingency (earned time on green)

- Red - Sit in seat - Desks cleared - No talking - Hands in **ready** position - Eyes on teacher
- Yellow - Sit in seat - Raise hand to speak - Keep hands and feet to self - Eyes on teacher - Ready to work
- Green - Use inside voices - Share and cooperate - Respect others - Keep hands and feet to self

* Results: reduced out-of-seat behavior for the entire class from 33% during baseline to 8.6% during the intervention phase.

VI: CW Research: Replication and Extension 2 - Briana



VI. CW Research: Replication and Extensions -3 - Jamie

Kindergarten class of 20 students
Dependent Variable: **out-of-seat.**
Interdependent group Contingency - earned time on green

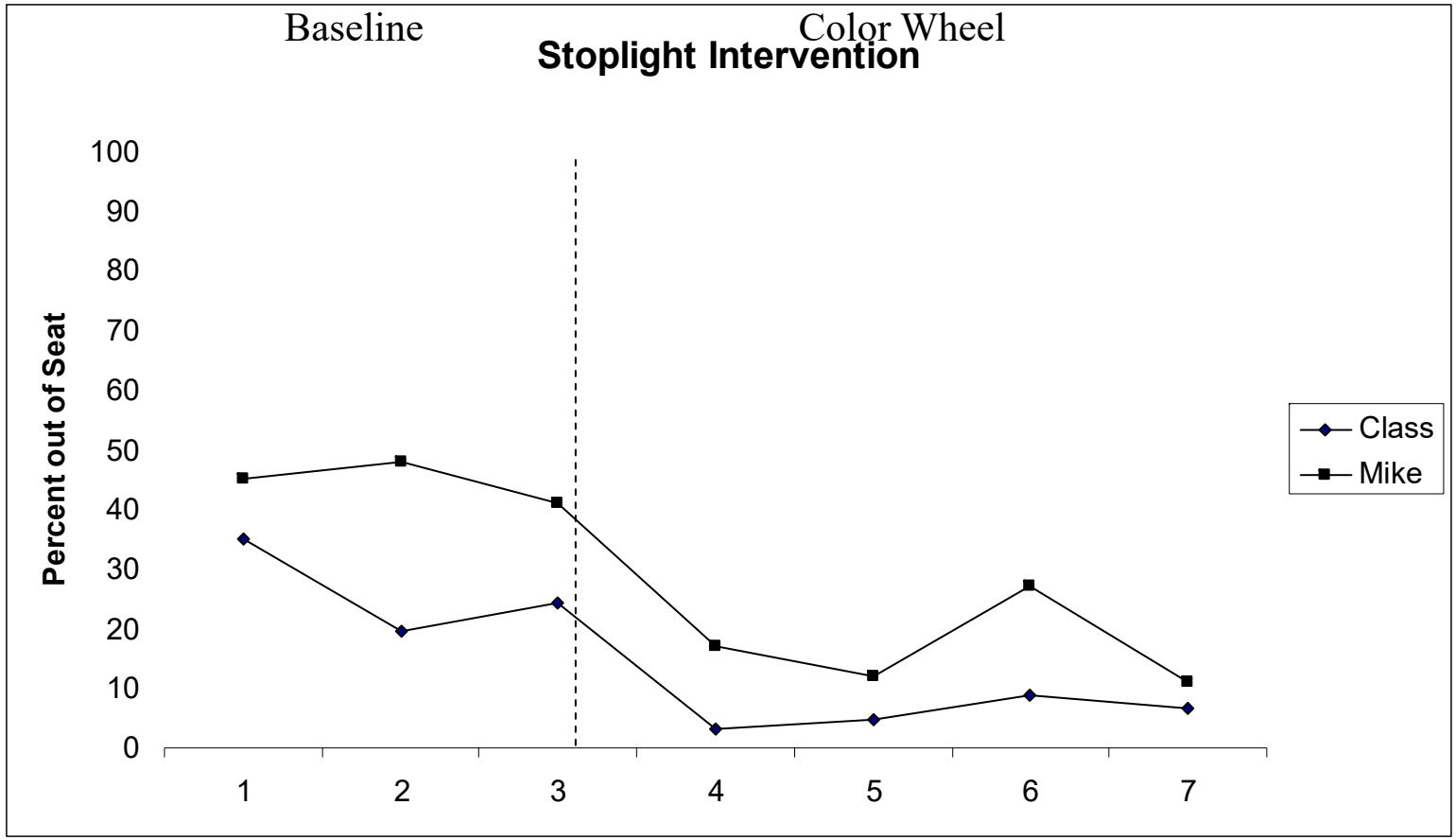
Red - On your bottom - Hands and feet to self
- Mouth zipped - Listen for instructions

Yellow - On your bottom - Hands and feet to self
- Raise your hand to speak - Work quiet as a mouse

Green - Hands and feet to self - Use inside voices
- Share nicely - Put toys back in place

Results: reduced out-of-seat behavior for the entire class from 26.3% during baseline to 5.85%

VI. CW Research: Replication and Extensions -3 - Jamie



VI. CW Research: Replication and Extension - 4 - Lee

5th-grade: 12 students, 3 ELL, 2 EBD, and 2 gifted.

Ethnicity (African-American, Hispanic, Caucasian).

Earn extra recess with "good points", level system.

Dependent Variables: 20 m session 10 sec intervals:

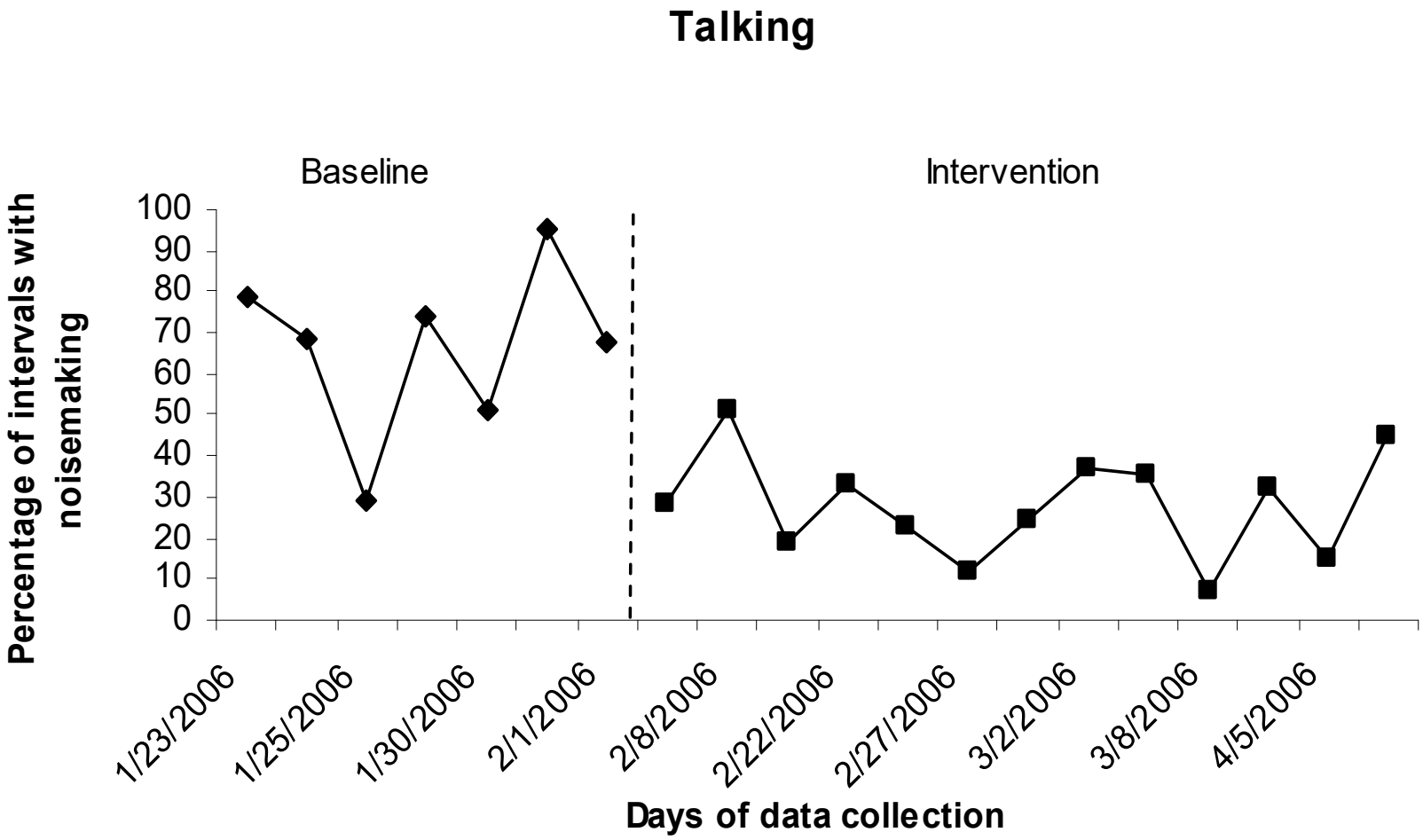
- Repeated direction - Frequency count
- Inappropriate talking - partial interval (any talking)

Weak integrity (inconsistent use by teacher)

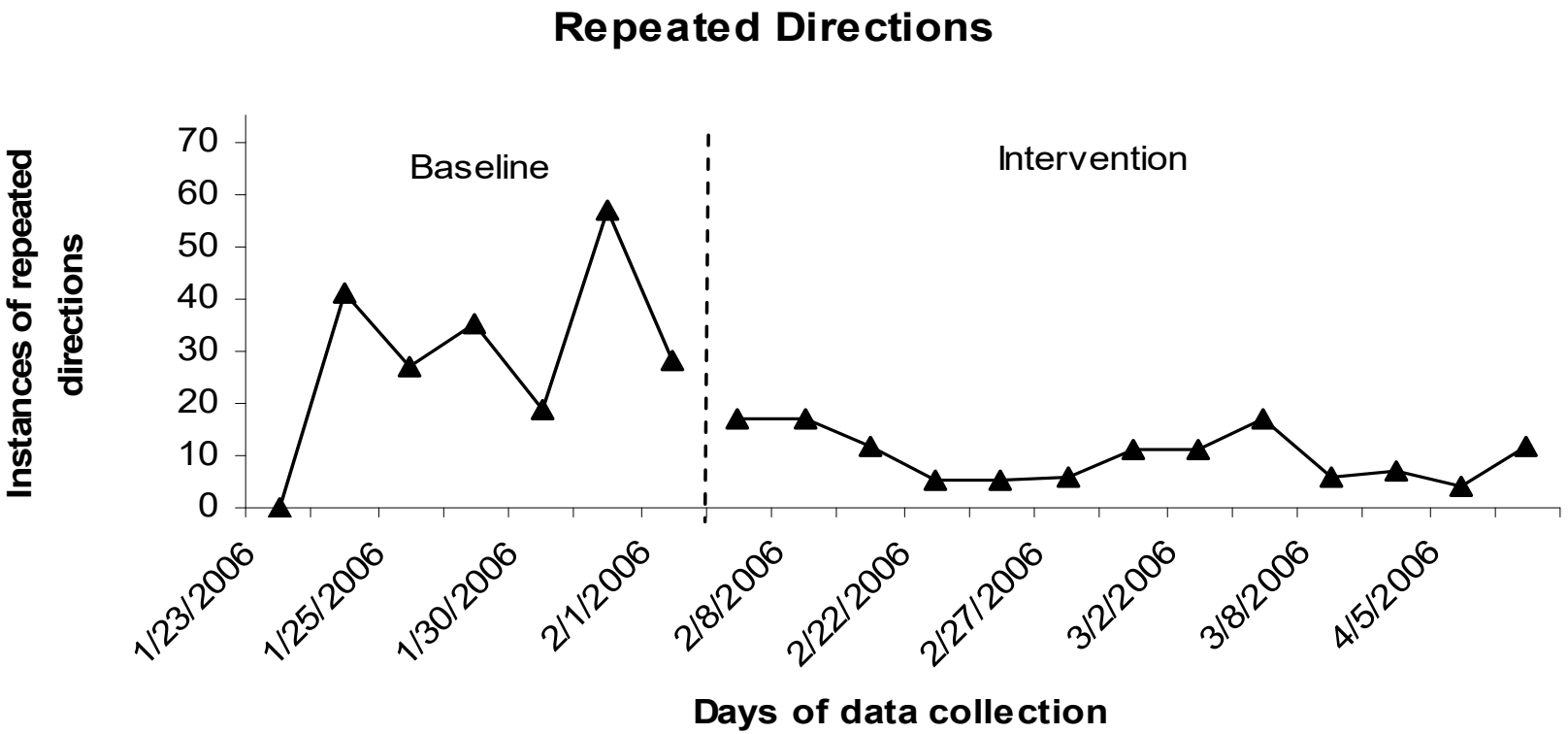
IO agreement 80-88% for talking, 92-98% for repeated directions.

Rules: Similar

VI. CW Research: Replication and Extension - 4 - Lee



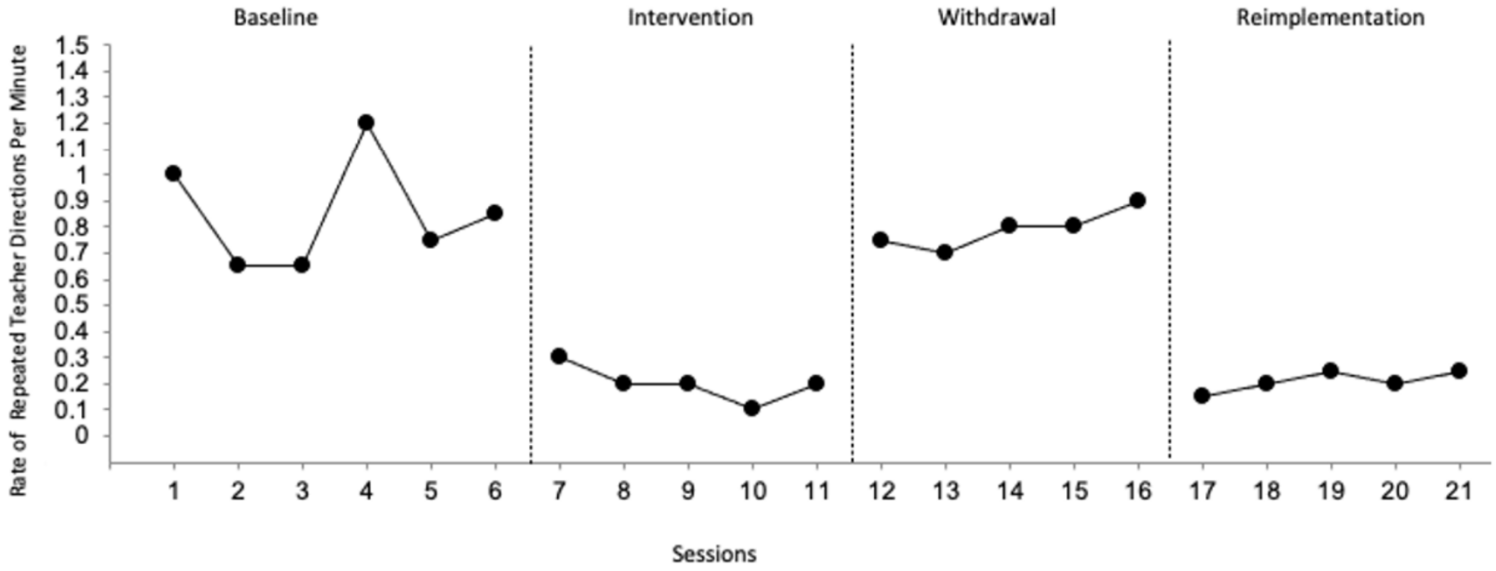
VI. CW Research: Replication and Extension - 4 - Lee



Recent dissertation

Figure 1

Rate of Repeated Directions within a 20-m Interval



Why repeated directions matter?

Reduction in repeated directions suggests that

1. Students are attending to directions
2. Students are complying with directions

Getting everyone's attention via the CW really helps!

VII. CW From Teachers

Teachers report:
Rules are repeated and consistent – helps student and teachers know behavioral expectations at all times

It organizes the teacher's day, make them think clearly about next activity before turning to Red.

It can be reactive – if they are too loud on Green, change it Red and tell to tone it down to talk about it
(2 boys in my class about to fight – go to red now!)

VII. CW From Teachers

Teachers Report

- Messy desks – students hurry to clear stuff off (folders)
- Some students may try to sabotage

(third grade student standing on desk - ignore)

- The rules don’t always fit every situation
- (yellow-green or new rules)

VIII. CW Other Strategies

- Teach, Post, Read, Repeat rules
- Be consistent early, praise & incidental R+ often
- Takes time to get used to routine – they will remind you
- High expectations
- Green as reinforcer
- Use red often, but be quick – hard to follow red rules for a long time and you want rule following; be reasonable

VIII. Other Strategies

As you progress

- Special rules: YELLOW/GREEN
- Red to interrupt escalating behaviors
- Brief Rules (let them abbreviate them – change wording)
- Separate rules for leaving the room
- Will not work for everything
- Won’t know it’s working if start year with it
- NEVER USE RED FOR PUNISHMENT -

Quiz Prompt - Question I

Teachers have asked about using technology (e.g., remote control and screen to change colors) and we have talked about using a countdown clock from 2 min.

Note the remote may be a good idea, but I think the teacher walking towards the wheel is a powerful stimuli that gets a lots of students attention and responding.

Quiz Question I

Teacher gives 30 second warning and is walking up to desk and notices that Rick is trying to finish his last math problems but the 30 seconds is almost up.

What should the teacher do?

Quiz Question I - Answer

The teacher should Not turn wheel to red exactly at 30s (an automated system with clock would do this) and then turn around and call down Rick for not following red rules.

The teacher could fumble the tack holding the wheel on color while listening for Rick to shut his desk – then turn around, look at the class and say Good job following red rules.

The goal is to occasion rule-following behavior – not catching rule-breaking behavior.

Quiz Question 2

The CWS is just been installed for a couple days and is going well. Then, out of the blue the teacher turns the wheel to red and a student stands on her desk and starts saying, “look at me, the wheel is on red and I am not in my seat and talking”.

What should the teacher do?

Quiz Question II - Answer

In this case the teacher ignored the child and continued activities like nothing was happening. The child stopped after about 1.5 min and never did it again. Also, no other children did it again.

Function of bold (obvious) rule breaking behaviors is often attention!

My kids, early on “eyes on speaker”

One would walk up and put his eye on my shoulder as I was talking – funny once (attention seeking) but then stopped

Other questions.

Another set of rules for small groups?

Yes!

Blondin use a fourth color purple – what might be small group rules be?

1. Use inside voices
2. Talks about assignment
3. Stay in area
4. Ask three before me?
5. Hands and Feet to self- follow all directions

Other questions.

Can you change warning times?

Yes!

Worked with art teachers and needed 5 min, 2 min and 30 sec

directions

Other questions.

Any research with older students?

10th Graders - Data IO data was not as strong as we measured during Purple in science lab and hard to hear if the were talking about assignment or other stuff.

Teacher indicated it was strong.

Also I used it for an entire year in 10th grade class with simple wheel, no animals (owl on yellow). Use the wheel to stop the nonsense

Other questions.

Should we punish (take points for breaking rule) or systematically reinforce (class-wide reward) for rule following?

Kirk et al. (2010) found the extra reinforcement did not help.

Fudge et al. (2008) found the individual punishment (take points) did not help.

But Fudges teacher kept the point system in place for when they got really out of control!

Other questions.

How about for students with Autism?

Found to have some effects but not as large as hoped.

See Asperanti et al. (2019).

How about Kindergarten?

Yes! Even though they could not read the rules.

See Watson et al., (2016) for formal study.

Other questions.

Can a student turn the wheel?

Avoid because

1. Student are more likely to comply with teachers than peers and

2. They can ruin the wheel and you do not want to make a new wheel every week.

How should you introduce CW”?

Depends on age of students. Most students do not get excited about rules!

Generally say system is to help all know (including teacher) how students are expected to behavior at all time. Designed to help class run smooth and reduce them getting in trouble.

With older children I say avoid some non-sense and hassles and make the classroom run smooth.

- ANY OTHER QUESTIONS?

My question to you?

Do you have confidence that

1) CW caused the change in these studies?
   (Internally Valid)
2) CW would work with my class?
   (Externally Valid)
3) You can install and maintain CW in your context of class ?
   (context validity)

Big Finish

Occasionally rule-breaking is not a great big deal – prompting is enough, no need for long drawn out arguments or punishment (nattering).

Teachers also make mistakes – early on and on purpose I called on students to answer a question when the wheel was on red. I acted upset “I just covered this material. One of you must know the answer!”

They were snickering because the wheel was on red and they could not raise their hands!

Thanks for Having Me

Feel free to contact me with question etc.

Chris Skinner – cskinne1@utk.edu

Also if you implement the color wheel contact me and let me know how it is going.