

Between Can't Do and Won't Do: Fluency, Choice, and Context

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Disqualifiers

1. Have not taught students with autism in over 25 years.
2. I have made many mistakes when teaching.
3. When I am in a room with my students and colleagues – it is a good bet I am the least academically inclined (biggest knuckle head in the room)

Qualifiers

1. I am here.
2. I have learned much from my mistakes, my students, my colleagues, and the practitioners I have worked with.
3. Have you ever read about the negative correlation between spelling and IQ?
(There will be error on my slides)

Objectives

1. Focus on big ideas and provided specific examples.
Big idea – how can I get them to learn if they don't come prepared, pay attention, or following my directions and instructions.

Objectives

- I. Procedure for enhancing attention and compliance
(1) Color Wheel and (2) Momentum
- II. Assignment alteration procedures to increase chance that they do assignments
(1) additive interspersal, (2) brief sheets, and (3) partial assignment completion
- III. Applying group contingencies with randomly selected components.

Warnings

1. I am loose with my language so I may, at time say things that hurt your ears like “reinforcing students”

I am apologizing ahead of time – I know better but I have always struggled with anything to do with language.
2. At other times I will talk in more precise manner – buttoned up and will try to explain why.

Warnings

1. I will focus on research conducted by my students, our collaborating practitioners, and me.

Why – I know it better and figure that’s why I am here.

2. In most of my studies I actually do not know who or if any of the students had Autism.

But – I am going to describe behavioral principles and procedures that I believe you will find effective (I checked with my colleague who teaches our Autism Ed class) – but they may require some modifications

I. AAA Responding

- Teach so students acquire skills
- Focus is on accurate responding
- After **teaching** - assign work to give students opportunities for AAA responding
 - Active
 - Accurate
 - Academic responding

I. AAA Responding

AAA Responding causes increases in

1. Accuracy
2. Fluency or Automaticity
3. Maintenance
4. Generalization and Discrimination
(when to use skill and when not to)

I. But they do not respond

There are numerous reasons why students do not engage in AAA responding.

These can be viewed as:

Can't Do Problems and
Won't Do Problems

1. Describe procedures for getting students to attend (Color wheel).
2. Describe procedure for getting them to comply – momentum.
3. Describe procedure for altering assignment and Increasing the probability that they will choose to do them (Interspersal, brief sheets, partial assignment completion, and group contingencies).

I. Can't Do: Forgot materials

- Do not have materials
- Solution – let them fail, learn responsibility.
- Negative Side Effects:
1. Learning impaired
 2. Teach that learning not that important
 3. Emotional reactions as they sit (particularly those who care about learning)
 4. Escape and Avoid work – may R- this behavior

I. Can't Do: Alternative Solution

- Give them materials

Address the responsibility question in ways that do not allow them to escape work.

Note: natural consequences should not always prevail.

I. Can't Do: I Don't Understand

Often occurs after teacher-led instruction perhaps because they were not paying attention.

Solution: Frustrated teachers often do not want to help if they feel the child was not paying attention and this is why they can't do.

Child raises hand for help and is embarrassed by teacher who wants to teach the child too pay attention.

Side effect: does not ask for help, does not respond, or practices inaccurate responding (learning retarded)

I. Can't Do: I do not understand

Alternative Solution:

1. ISW- move around room checking ISW
Clarify and re-teach when needed.
2. Peer, self, or computer monitoring (self-checking)
3. Enhance attention by interspersing response opportunities (questions, response cards, clickers, choral responding).
4. Enhance attention by reducing competing stimuli

I. Interspersing responding during teacher led instruction

Recitation: goal is entire class to Actively respond (active but covert) which in turns enhance attention.

Ask questions but students' response times vary so:

1. increase wait times
2. do not call on first person
3. Use response cards, paint sticks, clickers
4. Vary time based on questions
5. Use student response as feedback to guide instruction (e.g., negative reinforcement and punishment).

II. Enhance attention

- How can I teach them if I can't get them to sit still and listen for even 5 seconds?

Used to think that if you were such a great teacher, never have this problem (lessons so darn good)

Ridiculous expectation for teachers –

Seinfeld Audience: \$100,1 hour, chose to go, year to prep.

Teacher's students: forced to go, 5 hours per day, little prep time.

Color wheel can help, especially with transitions.

II. CW Introduction & Activity Transitions

- * I learned this at Centennial School, Lehigh Laboratory School of EBD students.
- * Was used across rooms, all the time.
- * Developed by Drs. Deb Dendas, Gina Scala, and Ed Lentz

Transitions Defined:

Switching from one activity to another

Three transition steps:

- End Something
- Transition
- Begin Something Else

II. CW Activity Transitions

What Goes Wrong During Transitions?

Those finished with activity: Get loud, Leave area, Start other activities, inappropriate behavior

Those not finished:

1. Difficulty stopping --> Difficulty starting anything new

Poor attention to directions/instruction, repeat directions, repeat instructions (real time consuming), reprimanded, deny, punish, - starts time consuming chain of events.

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II. CW. Activity Transitions

* Even teachers with many years of experience often have difficulty occasioning efficient transitions from one activity to another.

* Inefficient transitions take huge amount of time reduce:
educators time to teach student time to learn

* Teachers often have to deal with these behaviors (investigate, make decisions, record, deliver consequences) - More time

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II. CW. CLASSROOM RULES

Function of Rules:

Set behavior expectations for students/teachers.

Provide order, allow learning to occur unimpeded.

Characteristics of Effective Rules:

1. Known: Posted, Clear, Concise, Few, (Salient)
2. Reasonable: target essential behaviors, consistent with school rules, specify desired behaviors, activity specific (make since, easy to learn).

Goal – student success with rule-following

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II. CW. Classroom Rules

Problems with Classroom Rules

Activity Specific:

Most classroom rules are **too general** and **continuous**.

Thus one set of rules designed to cover so many different classroom activities that they provide no clear expectations for specific behaviors.

Need:

1. **Specific rules for specific activities**
2. **Procedures for transition from one activity to another.**
(and one set of rules to another)
3. **Expectations - most will follow these rules**

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II. CW. The Color Wheel

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

General Overview:

Establish transition **routines** that including:

1. 2 minute and 30 sec warning to end activity
2. Cue or signal to stop activity
3. Clear directions for next tasks
4. Give clear directions for expected behaviors of those who finish task early.

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II. CW. Color Wheel

Why is it different?

1. Different rules for different classroom activities.

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

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

Procedures are efficient, consistent, used across situations, (repeatable and repeated), thus are or easily become known (internalized).

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

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II. CW. Color Wheel

Device to indicate current classroom rules:

Three colors: RED, YELLOW, GREEN

Show a Wheel.

Each with a different set of rules for different activities.

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II. CW. Color Wheel - Red

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).

When to use:

Use when want to speak to entire class – get undivided attention, cease one activity so can start another.

Causes all to stop and activity and attend.

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II. CW. Color Wheel - Yellow

Yellow Rules:

1. Raise hand to leave seat
2. Raise hand 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

When to use:

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

Allows teacher to managing behavior across many learning activities

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II. CW. Color Wheel - Green

Green Rules

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

When to use:

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

Allows for many other activities

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II. CW. Color Wheel Procedures

1. Post rules (class may help develop or **word** them)
2. Color wheel always on
3. Two warnings: 2-minute and 30 second warnings
4. Change activities - go to Red
5. Under Red give class direction or instruction for next activity.
6. 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
- Later may be able to do this switch, but not in beginning

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II. CW. Color Wheel Procedures- continued

7. Give warnings – in the beginning 2 warnings are good – one at 2 minutes and one at 30 seconds.
8. Praise students for following rules.
9. Have students recite (read) rules in beginning before or immediately after turning the wheel.
10. Let students abbreviate rules (not the Gettysburg Address - easier to memorize and quicker).
11. Can fade warnings, recitation, and praise as year goes on.
12. Quick time on Red.
13. Use Green as reinforcement

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II. CW. Color Wheel Procedures- continued

14. Do not use Red as punishment – want them following rules.
15. Ignore or briefly prompt those not following rules.
16. Sabotage (intentional) always ignore - do not prompt as often doing this for attention.
17. Keep all other programmed contingencies (reinforcement and punishment) in place.
18. Teach rules in beginning of year (work into lesson plan).
19. Post rules - BIG PRINT - SO ALL CAN READ - THREE SHEETS.
20. Post rules near color wheel - eyes now on rules, wheel, and teacher.

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II. CW. Color Wheel Procedures- continued

21. Work into lesson plans - what color for what activities.
22. In the beginning of year consistency is crucial, so try to work this into your everyday routine.
23. Can fade warnings, recitation, and praise later.
24. If R+ - do not withhold the reinforcer from individual students (this is a class-wide procedure)
25. Make it fun - not life or death, not punishment focused.
26. You turn the wheel (not students).
27. Remember – expect them to follow rules.

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II. 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.

Next - our data to show it worked in general ed schools.

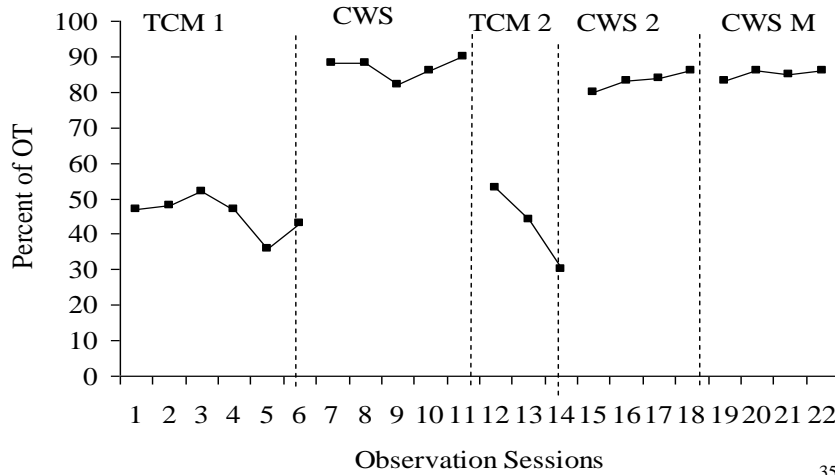
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II. CW. Study 2: Fudge's Dissertation

1. Second- grade inner city Classroom: 12 Students.
2. During BL used response cost
3. During CW intervention phases the teacher never took points – suspended the response cost system.
4. Measure On-Task (oriented toward speaker or work or following directions).
5. Measured behavior of group and all students.
6. Momentary time sampling.

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II. CW. Study 2: Fudge's Dissertation. Class Average Data



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II. CW. 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)

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CW. 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

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II. CW. Student Acceptability

	<u>Agree</u>
1. I liked the Color Wheel.	100%
2. <i>Using the Color Wheel helped me to know which rules to follow.</i>	100%
3. <i>When the Color Wheel was not used I did not know what rules to follow.</i>	100%
4. I liked having the rules posted at the front of the class.	100%
5. The different colors for different rules made it easy to know what rules to follow.	100%

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II. CW. Teacher Acceptability

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

1. The Color Wheel was a good intervention-6.
2. I noticed students' behavior improve 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.

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II. CW. Conclusion

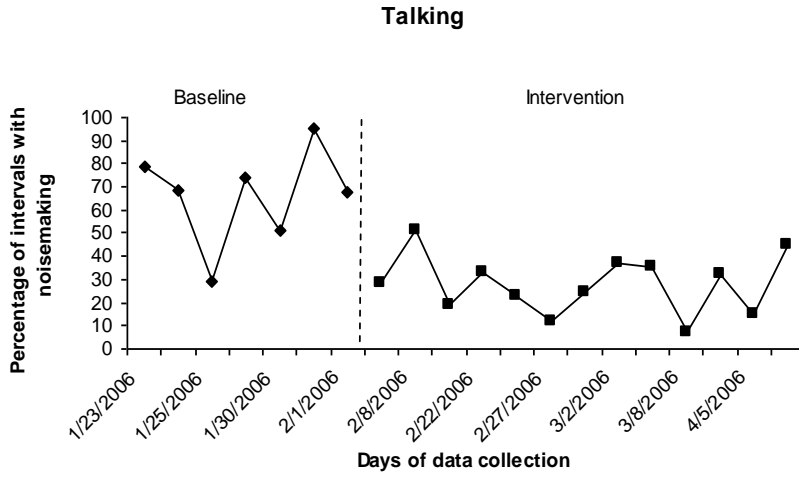
All student improved (ES = 1), none got worse.

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

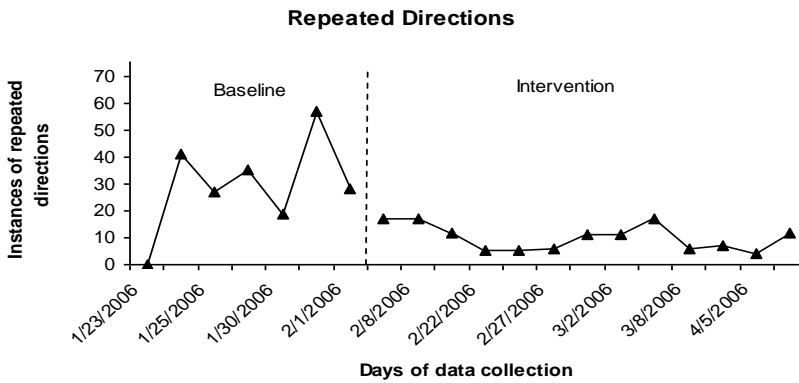
Teacher liked it, but students really liked it – reported that allowed them to know what was expected of them at any given moment in time.

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II. CW. Saecker et al., 2008



II. CW. Saecker et al., 2008



II. CW. Summary

In other CW cases we began working with teachers over concerns with 1- 3 students.

Direct observation suggested that it was a classroom management issue (many children having similar problems).

These procedures helped all students and the teachers (they would not tolerate the withdrawal phase, did not have to repeated directions, etc.).

Fudges dissertation was RTI at it's best - all responded.

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II. CW. Your Turn

- Color Wheel:
Questions?
Comments?

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III. Enhance Compliance

- Ray, Watson, & Skinner (1999).

Student – 5-years old male (Tony)

Problems – aggressive outburst, elopement (running away) and noncompliance to simple commands.

Teacher and Parent interviews – can follow most simple commands, does so at home with Mom, but not at school with teachers

III. Enhance Compliance

Target – non- compliance to teacher commands

1. Developed list of simple commands that he can quickly comply with (e.g., raise your hand).
2. Intervention – Momentum – high p commands mom; low p teacher (faded high p and intervals between last high p and first low p)

Phase 1 – Baseline Commands delivered every 5-s seconds

Always praise compliance and ignore non-compliance

Phase 2 – Mother (high-p) commands only First mom delivers 3 commands, then another three command trial is applied 30 seconds later until 25 trials are completed

III. Enhance Compliance

Phase three: 3 high-p followed by 1-low p (teacher command). First mom delivers 3 commands and then 10 second later the teacher delivers one command, each trial is applied 30 seconds later until 25 trials are completed.

Phase four: 2-mom followed by 2- teacher

Phase five:(interval lengthen) first teacher command given 10 second after last mom, as opposed to 5

Phase six: (high-p fading) 1 mom followed by 3 teacher

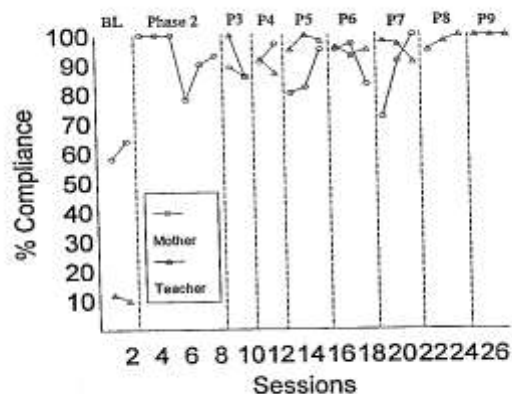
Phase seven: (interval lengthen to 15 s)

Phase 8 – no high P Mom commands.

Generalization – when with teacher doing speak therapy

III. Results – Ray et al. 1999

Figure 1. Percent compliance with teacher-issued and parent-issued commands across phases.



III. Discussion - Ray et al. 1999

1. Successful transfer of stimulus control.
2. Not unusual to have children who compliance is a function of who delivers commands.
3. Another example of me benefiting from working with colleagues and students on applied problems.

Tip of the hat to Dr. Kim Ray – BCBA in Mississippi

BREAK

10 minute – or in 10 minutes the CW will turn to red

Can't Do: Lack Prerequisite Skills

Most difficult problem to Address:

1. Remediate: teach prerequisite skills
2. Accommodate: procedures that allow students to learn, despite these skill deficits

Too much to cover here.

IV. Won't Do is Choice

- If they can do the work, then we are dealing with a choice problem. Also referred to as a motivation problems.

IV. Choices often concerned with

Often concerned over students choosing to engage in dangerous behaviors: play in street, take drugs, unprotected sex.

Should be concerned with these choices – clear and present danger.

IV. Choosing AAA Responding VS Clear and Present Danger

More continuous - Jack may start reading but at any time he may choose to engage in another behavior (thinking about lunch).

He has made a choice (may be unconscious).

Positive Valence (something we desire)

IV. Clear & Present Danger vs. AAA Responding

IV. Effect of Choice

CPD:

Immediate

Reduces quality of life for self or others

Behavior punished by adults, R+ by peers

Clear causal connection btwn beh. and effect

IV. Clear & Present Danger vs. AAA Responding

IV. Effect of Choice

AAA Responding:

* Delayed (good job, high SES)

* Improves quality of life (kids and their kids)

* Behavior often ignored by adults (do what they should be doing), rarely R+ by peers.

* Less clear causal connection between choice and outcomes (Delayed)

IV. Why they choose not to AAA respond: Too much effort

Takes too much effort (those with weaker skills)

Bad solution: make assignments easier or briefer (Cates, Skinner, Joseph).

Called watering down the curriculum – yes may behave better and do work but learn less (Tom story).

IV. Too much effort for too little R+

Strengthen Reinforcement –
Rate, quality, reduce delay

Before going on – a bit about environmental selection, bird, BF, and us

IV. Environmental Selection

- Environment selects organisms, those that survive long enough to reproduce are a species (they continue).
- Environment selects behaviors, those that are reinforced survive and are repeated (as with organism, not exact replicas).
- Control the environment so it favors desired behaviors and they will choose.

IV. B.F.'s Pigeons

BF used to complain that his pigeons were not behaving as they should. He eventually realized that they were behaving exactly as they should and then found way to control their behavior.

IV. Our Students

Teacher – I should not have to R+ them for doing what they should be doing.

Be like BF and realize students are doing exactly what they should be doing. Now do what you need to do to make them choose what you want –

IV. What you want –AAA responding

Least likely to get it from those who needed in the most, those with weak skill development because the reinforcement is not worth the effort –

Note R+ is enough for those with stronger skills: reinforcement = same, effort less

Downward spiral based on choice

IV. Some Strategies for Choice

Assignment Alteration

Intersperse brief tasks (Skinner, 2002).

Make one long assignment multiple brief.

Allow choice of equivalent assignments.

Start assignment with 5 minute left

IV. Discrete task completion hypothesis

THE HOOK: I can cause students to choose mathematics homework with 20 and 40% more long and perhaps tedious problems by giving them more problems.

Thinking about reinforcement and reinforcers.

IV. THE HYPOTHESIS

DTCH - When given an assignment comprise of many discrete tasks, a completed discrete task is a reinforcing stimulus. (Skinner, 2002 – C. H. Skinner – Me, my only original idea). I thought I had another original idea but a student found it in the 1914 musings of someone else – I doubt that this is original either, but who knows.

IV. THE HYPOTHESIS

A Story: Working on APA self-study

Finished section A

Bogged down in B for weeks

Skipped to H. Started and finish in ½ hr.

Printed proofed, altered and printed again.

Felt like I had been R+ (patted on the head).

the completed discrete task (section H) was a R+er.

Ah-hah moment – not really had been reading Mace, Neef, Martens, and Herrnstein and Baum on matching law.

IV. THE HYPOTHESIS

Assumption regarding Learning History (Ontogeny): In the past, when given an assignment, reinforcement has been delivered contingent upon completing that assignment.

1. Positive reinforcement

- 1\$ when finish cutting the lawn
- Praise for finishing homework
- Good grade for completing all assigned class work
- Praise for completing APA self-study (box of wine)
- Play golf when finish sales call (Premack)

IV. THE HYPOTHESIS

Also escape avoid aversive consequences contingent upon completing an assignment.

1. Negative reinforcement

- Avoid getting grounded for not mowing lawn
- Avoid getting yelled at for not finishing what you started
- Avoid bad grades for not completing assignment
- Avoid getting fired for not finishing sale calls
- Avoid getting in trouble with Dean for not finishing APA self-study.
- CONCLUDE: History of being reinforced (+ &/or -) for completing assignments. **AGREED?**

IV. THE HYPOTHESIS

PAVLOV: CLASSICAL CONDITIONING:

1. CONTIGUITY –

- *NS*-----→*US* (Food Powder)
- *NS* (bell or light) takes on the properties of the *US* and becomes as a *CS*

2. CONTINGENCY (Rescorla-Wagner) -

- *NS*----> reliably precedes the *US* – also becomes a *CS*

Research supports both processes.

IV. THE HYPOTHESIS

Assumption: History of being reinforced (+ &/or -) for completing assignments.

NS -----→ reinforcing stimulus

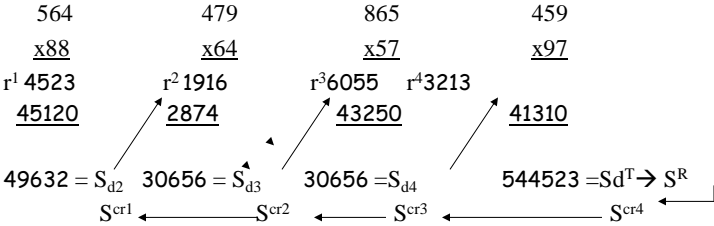
Completed assignment---→ reinforcement

Thus, based on classical conditioning a completed assignment is likely to become a reinforcing stimulus.

If a completed assignment is a reinforcing stimulus, then and stimuli that reliably precedes (continuity and contingency) should also become a reinforcing stimuli (higher order conditioning).

IV. THE HYPOTHETICAL MECHANISM

S_{d1} = Teacher Direction to complete assignment



When given assignment, each completed task is a discriminative stimuli (we move to the next discrete task). Finish and get reinforced.

What stimulus reliably precedes reinforcement? The last completed problem.

Thus should become a conditioned reinforcer.

Higher order conditioning: all completed discrete task become R+

IV. PROCEDURE: ADDITIVE INTERSPERSAL

Based on the DTCH and procedures that enhances rates of discrete task completion will enhance rates of reinforcement.

Interspersing tasks that take less time will increase discrete task completion rates.

IV. PROCEDURE: ADDITIVE INTERSPERSAL

Substitutive interspersal procedure: **replace** high effort, time consuming tasks with briefer task.

Choose or prefer least effort.

Problem: watering down the curriculum, reduce learning rates.

Additive interspersal procedure: **add** high effort, time consuming tasks with briefer task.

Just making the assignment longer (more effort).

Thickening up the curricula.

IV. PROCEDURE: ADDITIVE INTERSPERSAL

Control Assignment

457	678	686	697	854	996
<u>x59</u>	<u>x78</u>	<u>x47</u>	<u>x86</u>	<u>x76</u>	<u>x48</u>

Additive Interspersal Assignment

475	876	866	6	967	854	699	4
<u>x95</u>	<u>x78</u>	<u>x47</u>	<u>x5</u>	<u>x68</u>	<u>x76</u>	<u>x48</u>	<u>x2</u>

Least effort: says prefer control assignment.

DTCH will results in high rate of reinforcement while working on additive interspersal assignment. Which do they prefer.

IV. THE RESEARCH

General methods:

Work on both assignment for equal amount of times.

Calculate problem completion rates under both assignment.

Give choice for homework (also ranked for time, difficulty, and effort).

IV. Additive Interspersion

Have assignment with multiple 3×2 problems (e.g., $697 \times 84 = \underline{\quad}$) – we found more likely to choose to do assignment when intersperse additional brief, low effort problems (e.g., $2 \times 3 = 6$).

In fact high school remedial math students chose 40% more long problems when brief interspersed (Cates)

IV. THE RESEARCH

Strength of the Additive Interspersal Procedures:

Cates ask and answered and question of educational validity.

Can you get them to choose homework with even more longer problems?

Control: 10 long target problems

Exp: 12, 14, 16 longer target problems, plus interspersed.

Cates & Skinner (2000): 9th-12th grade remedial math students.

Chose interspersal with

20% more long problems 69%*

40% more long problems 65%*

Thus, got them to choose to do more long problems by giving them even more work.

IV. Additive Interspersal

McCurdy, Skinner et al. (2001)

2nd grade student, general ed. room ADD-H, off CNS stimulants.

Problem – off task, not completing math work.

Repeated measures, within same subject (different from earlier group work).

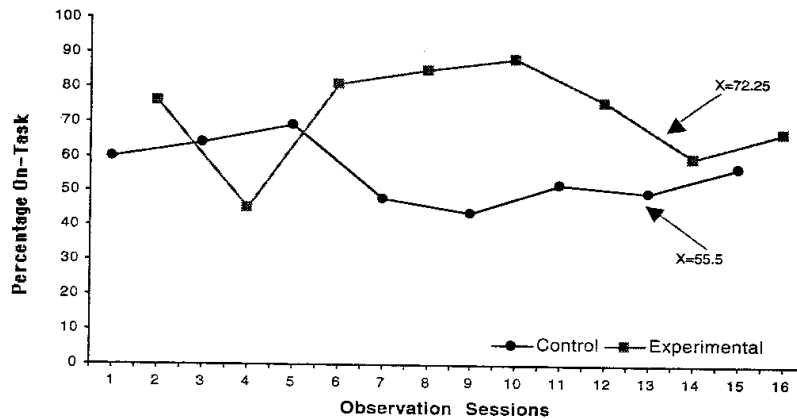
Logic – Additive interspersal caused more students (from the group) to choose an assignment.

With an individual student, at any moment in time may choose assignment or choose to do other.

Interspersal assignments: workbook, real life cut-and-paste.

Setting: classroom, daily assignments.

IV. The Applied Implications: Research



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IV. Brief Sheets

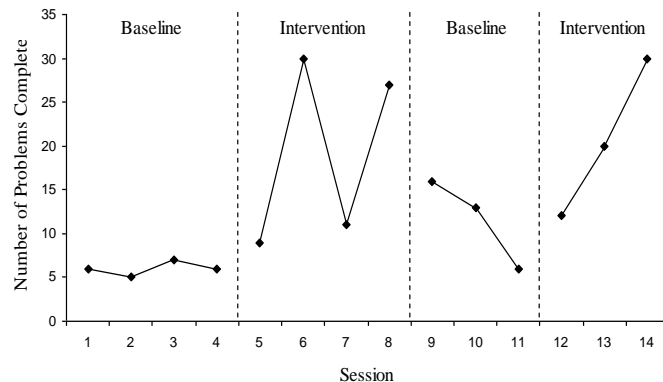
- Practica students and supervisor challenged
- Can you apply Discrete tasks complete hypothesis in this case or
- Are there any brief problems

IV. Brief Sheets

Wallace, Cox, & Skinner (2003): Brief sheets.

1. Subject: Elementary student, developmental delays.
2. Problem: 30 problems (adding 0 or 1 to numbers 0 - 5, do a few and sit and glare at teacher.
3. Intervention – cut 30 problems into 5 rows of 6 problems.
4. When finish brief assignment, raise hand – high five for each sheet finished.

IV. BRIEF SHEETS



IV. Brief sheets

He asked for more work when raised his hand

History of finishing assignments and being reinforced for it.

Increase rates, quality or R+ and reduced delays –

Plans to make assignments gradually bigger.

Other assignment alteration procedure

Choice but equal assignments (change name in story to students name).

Change response topography (say versus write) – got more learning cause more responding)

V. Partial Assignment Completion

If 5 minutes left, should I have them start the independent seat work or just assign it for homework?

Gestalt = unfinished task uncomfortable

DTCH – avoid punishment by finishing what you started.

BOTH – should be motivated to complete task.

V. Partial Assignment Completion

Three studies – start them and interrupt them when they have 10 problems left–

Then allow them to choose which to complete – a new equal assignment or

-- a new assignment with only 9 problems,.

10% less effort or finish what they started

V. Partial Assignment Completion

Found when effort equal (10 problems on both) would choose to finish what they started.

However, only 10% more and would choose new lower-effort assignment.

Finally, did not matter how much effort (time) was sunk into interrupted assignment, same effects.

V. Partial Assignment Completion

Conclude – get them started, but do not count on much.

Conclude – hard to get students to choose more effort

Conclude – interspersal pretty powerful

Conclude – need more research, jut started

VI. Some Strategies for Choice

Enhance Reinforcement

At home – home note (Mary Lou Kelly)

Reinforce for effort (Class-wide PT – number of drill task completed)

Group - oriented contingencies (Popkin & Skinner, 2003)

VI. Academic Targets: Everything Randomized Academic Behavior Game

Study 9: Academic Performance Game (Popkin dissertation)

How about randomizing all components!

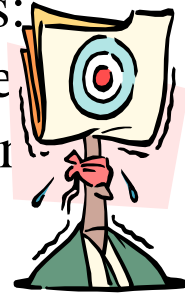
Self-contained – SED middle school classroom, ages 11-14.
All males.

Problem: while some are doing school work, often they are not.

They are failing and failing to learn.

Not sure if *can't do* or *won't do* problem (is the work too hard).

VI. Academic Targets: Everything Randomize Academic Behavior Game



* Target Students: All

* Target Behaviors:

Spelling, Mathematics, and English –

Daily performance (% correct) regardless of what they are doing (ISW, quizzes, exams).

All five students in different curricula (different activities each day).

*Target behavior eventually becomes randomly selected

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VI. Academic Targets: Everything Randomized Academic Behavior Game Criterion: Randomly selected

Start with 30 slips, each says **spelling** and
1- 25%, 3-50%, 3-70%, 4-80%, 4-85%, 5-
90%, 5-95%, 5-100%

Mean criteria, class average must meet this to
earn reward.

After a few weeks make identical slips but the
30 say **math**.

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VI. Academic Targets: Everything Randomized

Academic Behavior Game

Rewards: Randomly selected, group generated them – told activities, something everyone likes, inexpensive.
(suggestion box)

- Carmen Santiago
- Flight simulator game
- Silent ball
- Computer time
- Bonus bucks (token economy)
- Movie



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VI. Academic Targets: Everything Randomized

Academic Behavior Game

Procedures: Explain game for spelling only

Have them suggest group rewards

Show them 30 spelling criteria slips of paper

Two containers:

- one for rewards (slips of paper)
- one for target behavior/criteria slips

End of each day draw one out – did they earn the reward?

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VI. Academic Targets: Everything Randomized Academic Behavior Game

Procedures:

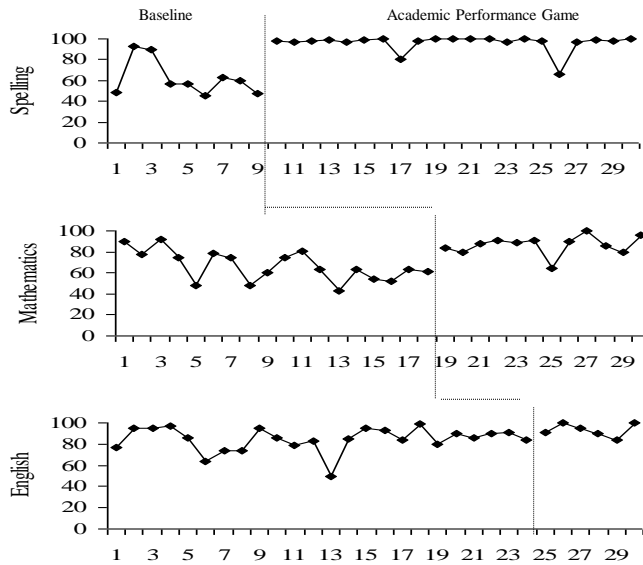
After a few weeks add the 30 slips for math.

- Now 60 criteria-target behavior slips –
- do not know how well you have to do
- do not know what subject

Solution – do your best and encourage your peers to do the same

After a few more weeks add 30 slips with English on them.

- Now do your best and peers do their best in *spelling, math,*
and English



Student	<u>Spelling</u>		<u>Mathematics</u>		<u>English</u>	
	BL	Int.	BL	Int.	Baseline	Int.
	X-Grd	X-Grd	X-Grd	X-Grd	X-Grd	X-Grade
One	93.3 A	97.7 A	68.4 D	89.8 A	85.6 B	98.0 A
Two	69.0 D	92.3 A	64.7 D	86.6 B	80.2 B	92.0 A
Three	26.2 F	96.3 A	72.4 C	86.1 B	72.9 C	90.0 A
Four	90.7 A	98.5 A	58.0 F	80.4 B	86.8 B	100.0 A
Five	0.0 F	89.5 A	63.7 D	84.0 B	87.7 B	79.0 C
Class	62.2 D	96.2 A	66.6 D	86.6 B	85.7 B	93.3 A

So lets see Alphie beat this.

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VI. Academic Targets: Everything Randomized Academic Behavior Game

Advantage:

- * never blow their chance to meet goal, because goal is random
- * by adding target behaviors, get more behavior for same reinforcement (thus fading).
- * Fun for teacher and students
- * Could randomly select rewards and add to them
- * All improved (good and bad students)

Disadvantage: more grading to do for teachers.

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Conclusion

The reason you should reward students for doing what they should be doing is students, like BF's bird behave as they should.

Current level or R+ may not be enough for those with weak skills, who need AAA responding most

That's all folks: 100 Slide

Questions, comments, concerns –

Again – email me if you need additional information.