

Classroom behaviour managen	nent is important
Problem behaviour (even mind	or):
 contributes to teacher exhau et al., 2014; Reinke et al., 201 	istion and burnout (Aloe
 is associated with poor outco (Parsonage et al., 2014), and 	omes for students
 reduced time for a cademic in 2013) 	nstruction (Reinke et al.,
Punitive, reactive approaches a negative outcomes (Cooper & J	are ineffective (Elder & Prochnow, 2016) and associ acobs, 2011; Skinner et al., 2000).
Most New Zealand teachers fe	el they are insufficiently trained (Johansen et al., 2
ARTS & SOCIAL SCREMOTS	

Introduction

Classroom behaviour management is important Positive Behaviour for Learning: School-Wide (PB4LSW)

- Based on PBIS (e.g. Sugai et al., 2016)
- A 3-tiered model of prevention and early intervention
 - Incentivizing desired behaviour is a key element
 - Praise statements should outnumber reprimands







Advantages of tootling?

Introduction

• It shifts responsibility from the teacher to students, • increasing its feasibility and social validity

Effectiveness

Initially, tootling was designed to increase students' reports of peer prosocial behaviour (Skinner et al. 2000)

... but has since been found to successfully improve multiple areas of classroom behaviour (e.g. Dillon et al., 2019; Lum et al., 2019)

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Research questions

Will a tootling intervention, implemented in Year 1 and Year 5/6 primary-school classrooms,

- 1. increase appropriate student behaviour, class-wide?
- 2. decrease student disruptions, class-wide?
- 3. increase teacher praise statements?
- 4. be rated an acceptable classroom intervention by classroom teachers and students?

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Methods: Participants and setting

- Three groups of students: two home classes and 1 remedial math class Teachers chose 6 – 7 students of each group deemed to be representative of the group for observation
- Two female teachers (9 and 10 year experience)
- The school was a PB4LSW mainstream, government school, located in an urban centre and had a decile rating of 6.
- Student population identified: 24% as Māori, 3% as Pasifika, 8% as Asian, 60% as New Zealand European, and 8% as "other".

Methods: Independent variable; tootling intervention

Teachers were provided:

- A script to train students in tootling and explain what tootling is and how it works in the classroom. What ______
- Slips of paper (13.5cm x 9cm) for recording prosocial behaviour
- 3. A tootle box (length: 22cm, height: 8.5cm, width: 15cm)
- A progress chart with the numbers 1-100 and markers indicating the tootle target and class progress towards is, placed where students could easily view it. 4.

		0	er 1	100	tle	Pro	gre	aa (ha	rt
	-	43			-	-	-	**	-	100
ty to Mila Foster	40		-		-		é†			
ine atta	-	n	-	58	-	6	-	-		-
hand before speaking		-	23	<u>.</u>	41	P			2	-
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	n	=	23	24	33	35	29	28	19	30
	1	ù	-				11		13	20

Methods: Independent variable; tootling 💭 WAIKATO intervention Teachers were provided:

• An 8-item, procedural integrity checklist to ensure the

- necessary steps were implemented by the teacher each day The researcher used a 13-item procedural integrity checklist to ensure each teacher received the same training on how to implement the tootling intervention
- Highly preferred class-wide rewards for reaching the tootle targets were selected in consultation between each teacher and their students.

	Class	Teacher	Rewards
Group 1	Year 5/6 home	1 A	Target of 60 Tootles: free time Target of 60 Tootles: free time Target of 60 Tootles: free time Target of 90 Tootles: shared hot chips
Group 2	Year 1 home	2	Target of 40 Tootles: an outside game, Target of 60 Tootles: free time, Target of 70 Tootles: free time Target of 70 Tootles: a shared class lunch
Group 3	Year 5/6 math Additional needs class (1 y below average)	1 B	Target of 25 Tootles: 10-minutes free time on an electronic device at the end of class

Methods: Dependent variables	WAIKATC
On-task behaviour	
 operationally defined as; following teacher instructions a rules; attending to (eyes oriented towards) appropriate to task, s mindfulness; and participating in independent seatwork, group activities. Independent seat work was defined as 1 or 2 knees or b touching seat, with all four chair legs on the ground, usi stationary or equipment in a way in which it was designed. 	and classroom materials, such as or peer- or puttocks ng appropriate ed to be used.
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Methods: Dependent variables

Student disruptions

measured functionally, by:

teacher corrective statements, defined as a vocalisation or gesture (such as shaking the head or raising the palm of a hand towards a student), in response to disruptive student behaviour, to stop or change that behaviour.

Examples: "Please stop doing that" and "Don't throw darts", "This is your final warning"

Non-examples included chanting, "Tahi, rua" or "Shh, shh, sh, sh, sh' to gain the attention of all students and corrective statements in response to academic tasks, such as, "No, that is not the correct answer".

Methods: Dependent variables

Teacher praise statements

- · positive statements or gestures indicating approval of behaviour.
 - Example, "Well done", "you're sitting beautifully", or "I love the way you stopped, looked and listened".
- Non-examples included giving out tokens with no explanation and praise in response to correct academic responses, such as "well done, that's the correct answer".

Methods: Dependent variables

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Treatment integrity

- Number of correctly written tootles • A correct tootle included the name of the student observed and the prosocial behaviour performed.
- Social validity
- Modified Behaviour Intervention Rating Scale (BIRS) to assess
 the social validity of tootling for teachers (Von Brock & Elliott, 1987).
- Modified Children's Intervention Rating Profile (CIRP) to assess student acceptability of the tootling intervention (Elliott, 1986).

Methods: Research design and data collection

A multiple baseline across groups design with a maintenance phase:

Baseline >> [teacher training >> student training] >> intervention >> follow-up.

- Each group was observed up to 3 times per week for 9 weeks, followed by two maintenance observations after 7 weeks.
- Observation sessions: 36-minutes long for Groups 1 and 3, and 42minutes long for Group 2.
- IOA was obtained for 17 (25.76%; range: 21.43% 40%) of the study's 66 sessions (83 100 % agreement)





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	Behavierne	Phue	Grone		Group	2	Group	5	
			Mean (range)	Tan-U	Mess (range)	Tan-U	Mean (range)	Tau-U	
			14		4		2		
	Do-Task	Baseline	45		56		66		
			(44 - 53)		(39 - 67)		(49-83)		
		Teeding	74	Isa	78	.96**	79	34*	
			(62-83)		(66 - 93)		(71-87)		
		Follow-up	80		87		77		
			(76 - 84)		(84 - 90)		(58 85)		
			mate/mile		8104/10485		mate/main		
I	Sumptive	Bavelins	0.44		0.85		0.34		
			(0.11 - 1.08)		(0.60 - 1.05)		(0.05-0.53)		
		Tooting	0.45	.19	0.46	-\$6**	0.36	.05	
			(0.14 - 0.75)		(0.24 - 0.83)		(0.17-0.58)		
		Follow-up	0.28		0.61		0.24		
			(0.05 - 0.47)		(0.50-0.71)		(0.19-0.28)		

*4					
of Teacher Protice Statemen	nts for each Teacher across Phase	19 Nor-4	Table 4		
			Praise to Corr	ection Ratios for	all Teachers across all I
		(Tanka La)	Teacher	Phase	Praise : Correction Rat
No. 2 a	A	12 2		Baseline	1.8
			1A	Tootling	1:8
				Follow-up	1:5
T-a A	1 1 1 1 1 1 1	and pressing to		Baseline	2:5
1 1			2	Tootling	3:4
	2 P	-		Follow-up	2:11
		4		Baseline	1:4
			1B	Tootling	1:7
				Follow-up	1:4

Results	: Soc	ial	V	ali	idi	tv				WAIKA
	Table 5									
	Mean See	ores acri	na Ace	epiat	billey.	Effecti	rener	is, and T	ime of Effect Factors, i	Measured by
	the BIRS.	Destration								
	Fav	ctor Teacher					-	Overall	mean scross factors	
			1.4	1A 2		11	1			
	Accepts	bility	4.8		5.47	5.0	0		5.10	
	Effectiv	eness	4.1	2	4.00	4.5	7		4.11	
	Time of	Effect	4.5	5	4.50	45	0		4.50	
	Overall	Mean	4.6	5	4.96	4,7	4		4.78	
	Table 6	n Scores	Within	and	Better	ien Ge	negrat,	for the C	'IRP	
	Group	<u></u>	-,	dent.	stem-t	Scote:			Overall stem mean	
	Gecup	1	1	Ment 3	stem-s	4 cote	6	7	Overall stem mean	
	Gecup	1	2 35 5	Menti 3 KR	4 4	5 4.63	6	7	Overall item mean	
	Geoup	1 5.27 4 5.87 3	2 35 5 91 5	Menti 3 58 15	4 4.19 3.25	5 4.63 5.43	6 4.72 5.40	7 4.31 5.60	Overall item mean 4.72 4.94	
	Geoup	1 5.27 4 5.87 3 5.42 3	2 35 5 91 5 91 5	Menn 3 58 15 15	4 4.19 3.25 3.25	5 4.63 5.43 5.43	6 4.72 5.40 5.40	7 4.31 5.60 5.60	Overall item mean 4.72 4.94 4.94	



Discussion Question 2: es tootling dec

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Visual analysis shows a decrease in student disruptions during the tootling phase for Group 2, with a very large effect size.

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- For Groups 1 and 3, little change to student disruptions during the tootling phase was observed.
- No causal effects can be established for disruptive behaviour
- Student disruptions during baseline for Groups 1 and 3 were generally much lower than for Group 2, with little change during tootling.
- These older students may have learned to avoid teacher reprimands (Cashwell et al., 2001; Skinner, 2000).

Discussion Question 3: WAIKATO s tootling inc ease teacher p

- · Teacher praise statements did not increase as a result of tootling.
- Similar to findings of the Good Behaviour Game (GBG; Lanny & McCurdy, 2007).
 Disruptive behaviour is more likely to elicit a teacher response than passive (ontask) behaviour (Lanny & McCurdy, 2007).
- Reprimands are reinforced by the natural environment, but praise statements are not.
- Tootling had a small counter-therapeutic effect on praise statements for Teacher 1 (A and B).
- High levels of disruptions might prompt teacher praise
 Others (Rubow et al., 2018; Elswick & Casey, 2011) found praise statements did increase as a result of the GBG, but they included praise for academic behaviours.
- Unchanged teacher behaviour strengthens the case for tootling causing the positive changes in student behaviour.

Discussion Question 4 Will tootling be rated an acceptable

 Consistent with previous findings (e.g. Dillon et al., 2019; Lum et al., 2019), teachers across all groups found tootling to be an acceptable intervention for improving classroom behaviour.

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- Teachers appeared to have limited awareness of the effectiveness of the intervention though.
- Consistent with previous research (Lipscomb et al., 2018; Lum et al., 2019), all but two students rated the tootling intervention as acceptable.

Discussion: Limitations and Future 💭 WAIKATO Research Limited data sets Systematic replications Non PB4LSW schools At risk groups • Different measures for disruptive behaviour · Follow-up data of academic achievement School-wide application (as a Tier 1 strategy) · Effects on pro-social behaviour

More immediate feedback for teachers



References

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