

# Preliminary Examination of How Teachers Practice PBS in Their Classrooms

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## Introduction

According to several previous studies, high fidelity of SWPBS Tier 1 implementation predicted low levels of students' problem behaviors (Flannery et al., 2014) and sustained implementation (McIntosh et al., 2016). Although SWPBS with high fidelity was implemented in schools, individual teachers were less likely to experience sufficient praise-to-reprimand ratios (Reinke, Herman, and Stormont, 2013). Fidelity measures, such as the Tiered Fidelity Inventory (TFI), conflate implementation and intervention fidelity, which maybe the cause of this discrepancy (Filter et al., 2022). Implementation fidelity is the fidelity with which implementation components, such as developing and organizing resources, planning and delivering training, reviewing data, and providing performance-based feedback to implementers, are used for changing adult behavior (Filter et al., 2022). Meanwhile, intervention fidelity is the fidelity of practice elements (PEs), which are specific tasks that frontline implementers are expected to complete, such as teaching students new behaviors and providing them feedback (Filter et al., 2022).

According to the study by Childs et al. (2015), among the ten subscales of the benchmark of quality, the classroom was negatively and significantly correlated with office discipline referrals and out-of-school suspensions. This result indicated that teachers' participation in core PEs in their classroom is essential for SWPBS Tier 1 implementation to be successful.

### The Purposes of the Current Studies:

- Study 1) Develop a checklist to assess participation of teachers in core PEs of the SWPBS Tier 1 implementation.
- Study 2) Examine the relationship between the result of the self-reported checklist result and direct observations of the teachers' behavior in their classrooms

## Study 1

### Participants:

Elementary and middle school teachers ( $N = 142$ ) from three regions in Japan participated in this study. All teachers had the opportunity to attend a lecture about SWPBS although it had not been implemented when the current study was conducted.

### Procedures:

Three experts developed items for the checklist based on TFI Tier 1, the self-assessment survey (SAS) Classroom System, and the checklist used in Bethune (2017). These experts have >2 years of experience of assisting schools with SWPBS Tier 1 implementation through training and coaching. A supervisor of teachers in the prefectural department of education who also had experience with SWPBS Tier 1 implementation reviewed and edited the text. Physical copies of the checklist were distributed to teachers early in the school year. The teachers evaluated and answered the current status of each item using a 3-point scale, with 0 indicating "not in place," 1 "partially in place," and 2 "in place."

### Results:

The foundation of the SWPBS Tier 1 implementation was viewed as consisting of four core practices (Horner et al., 2015). In addition, we developed a model with five domains of PEs (Table 1) based on the five critical features of classroom management (Simonsen, 2010).

The following model fit information was obtained through Confirmatory Factor analysis (CFA):  $\chi^2(160) = 222.71, p < .01$ ; RMSEA = .052; CFI = .952; GFI = .857. Cronbach's alphas of each factor were .64, .79, .65, .75, and .92 respectively.

Table 1. Means, standard deviations, and results of CFA

Factors	#	Items	M	SD	Factor loadings	communality
Factor 1: Teaching Expectations	1	Clearly define appropriate behaviors aligned with school-wide expectations and post these behavior in classrooms (e.g., positive behavior matrix)	1.31	0.70	.649	.421
	2	Set up opportunities so that students can actually practice and perform the appropriate behaviors for expected place and time	1.31	0.65	.631	.398
	3	Positively state appropriate behavior for each place and time and teach students directly showing models of examples and non-examples	1.55	0.58	.579	.335
	4	Encourage students actively participate in PBS in the classroom (let them set the 15 goals for appropriate behaviors and decide how to practice and how to celebrate when they are achieved, mutual acknowledgement, etc.)	1.27	0.65	.660	.436
Factor 2: Environmental Adjustment to Promote Appropriate Behaviors and Prevent Inappropriate Behaviors	5	Provide reminders in advance to encourage desirable behavior (e.g., telling students how to line up in the hallway before they actually do).	1.80	0.42	.651	.423
	6	Set specific goals that encourage appropriate behaviors (e.g., sit down before the bell ends)	1.74	0.54	.641	.411
	7	Set up a physical environment that promotes appropriate behaviors to occur (e.g., visual cues, etc.) and encourage students to try them out	1.30	0.59	.623	.388
	8	Set up a physical environment that prevents students from problem behaviors (e.g., 10 make seating arrangements suited for class activities, minimize crowding, increase opportunities to respond, and teach routines, etc.)	1.56	0.54	.558	.311
Factor 3: Acknowledgment to Appropriate Behaviors	9	Provide verbal praise and positive feedback to students' behavior aligned with 9 school-wide expectations even though the behavior was not listed on the matrix or directly taught	1.49	0.62	.684	.468
	10	Provide positive feedback other than verbal praise for students' appropriate behavior (e.g., giving stickers, visual feedback using graphs, fun recreation activities for goal achievement, etc.)	1.30	0.64	.605	.366
	11	Provide students with more than 4 positive statements (e.g., praise) to one negative statement (e.g., reprimand)	1.25	0.59	.507	.257
Factor 4: Response to Problem Behaviors	12	Directly teach students correct rules and alternative appropriate behavior when they engage in problem behaviors	1.84	0.41	.796	.634
	13	Provide verbal praise and positive feedback to students who have been involved in 14 problematic behavior and have subsequently followed the correct rules and behaved in a desirable manner	1.71	0.50	.716	.513
	14	Set up opportunities for students with problem behavior to perform and practice alternative appropriate behavior	1.31	0.62	.542	.294
	15	Follow the school's policies and procedures for dealing with students' problem behaviors (e.g., reporting to the administrators).	1.80	0.45	.438	.192
Factor 5: Data-Based Decision Making	16	Screen students in need of assistance based on the records of students' behavior (appropriate and inappropriate behavior)	1.20	0.74	.881	.777
	17	Develop a behavior support plan based on the records of students' behavior (appropriate and inappropriate behavior)	0.99	0.66	.873	.763
	18	Regularly (about once a month) review records of students' behavior (appropriate and inappropriate behavior)	1.06	0.70	.816	.666
	19	Share records of students' behavior (desirable/inappropriate) with administrators and other teachers	1.26	0.74	.808	.652
	20	Keep a record of students' behavior (appropriate and inappropriate behavior)	1.17	0.67	.742	.550

## Study 2

### Participants:

Six teachers (3 women and 3 men) participated in this study. All teachers were from the same elementary school, which did not implement SWPBS, and voluntarily agreed to participate in response to the recruitment for this study.

Teachers who scored higher than average in the acknowledgment domain score were placed in the "high" group ( $N=2$ ), whereas those who scored lower than the average were placed in the "low" group ( $N = 4$ ).

### Procedures:

Each teacher's behavior-specific praise (BSP), general praise (GP), and reprimand were directly observed and counted as frequencies. In addition, a 15-min interval time sampling was used to monitor the students' engagement. Two to three sessions per teacher or a classroom were observed. Each session lasted for 45 min.

As the number of participants was considerably small, no statistical analysis was conducted for this study.

### Results:

Two observers observed 33% of the sessions. IOAs were listed as follows: BSP (74.6%), GP (80%), reprimand (75.6%), and engagement (88.8%).

Teachers in the high group had higher BSP, GP, and ratio of positive-to-negative interactions compared to teachers in the low group (Figs. 1 and 2). No difference was observed in students' engagement between the high and the low groups (Fig. 3). The high group outperformed the low group in all five domains of the checklist, and the mean Study 1 data scores were similar for the high and the low groups, except for data-based decision making (Fig. 4). Among the five domains, the gap between the high and low groups was the biggest in the domain of acknowledgment.

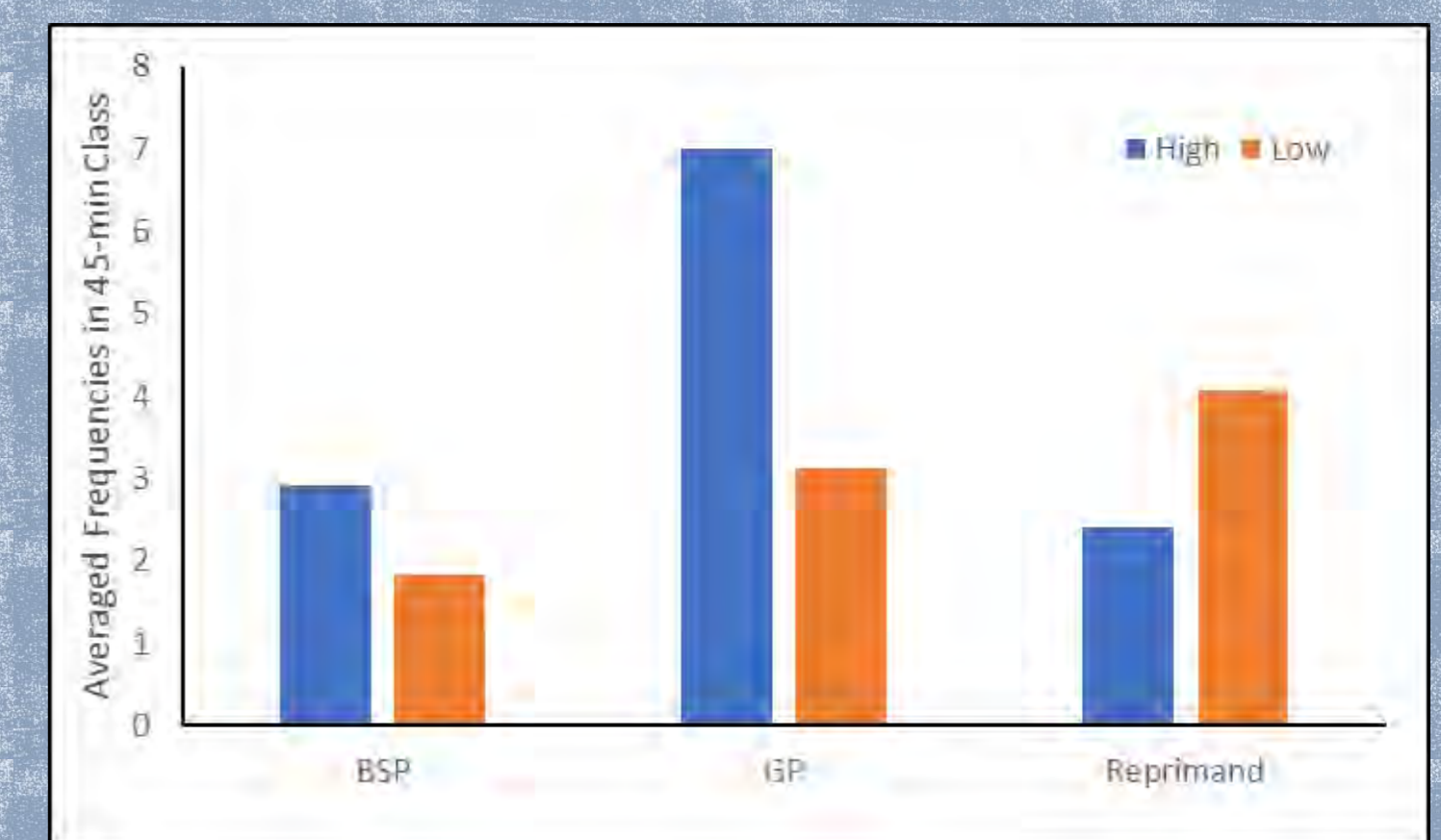


Figure 1. Frequencies of BSP, GP, and reprimand for high and low groups.

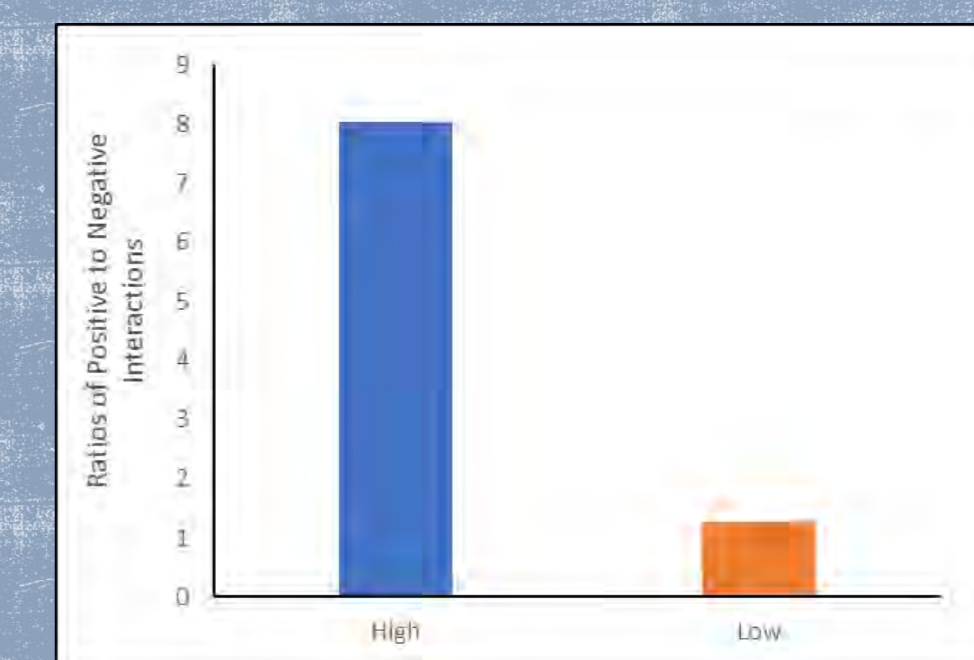


Figure 2. Ratios of positive-to-negative interactions for high and low groups.

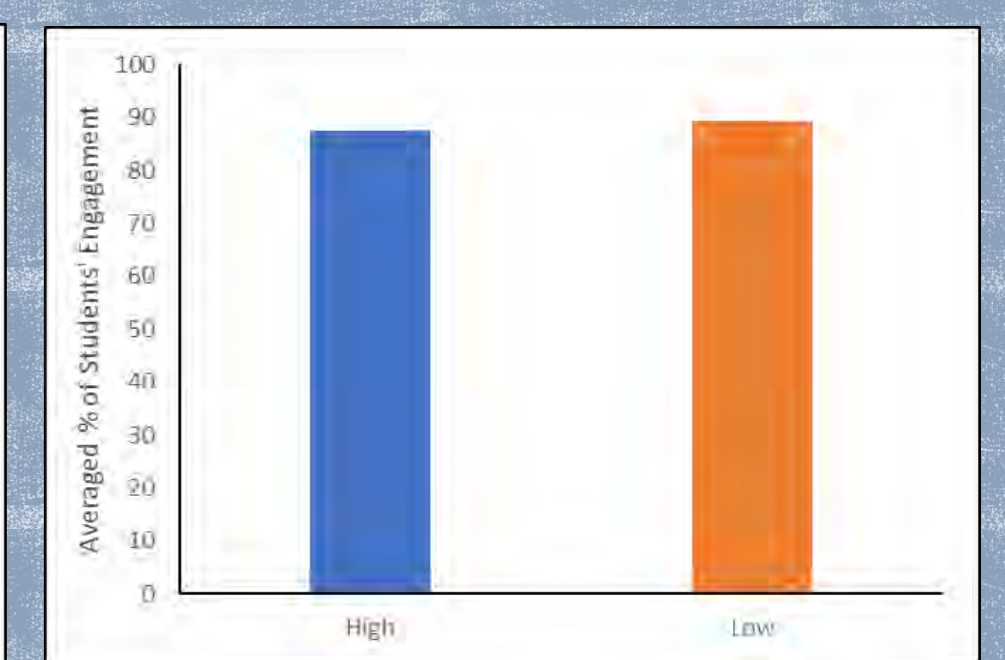


Figure 3. Students' engagement for high and low groups.

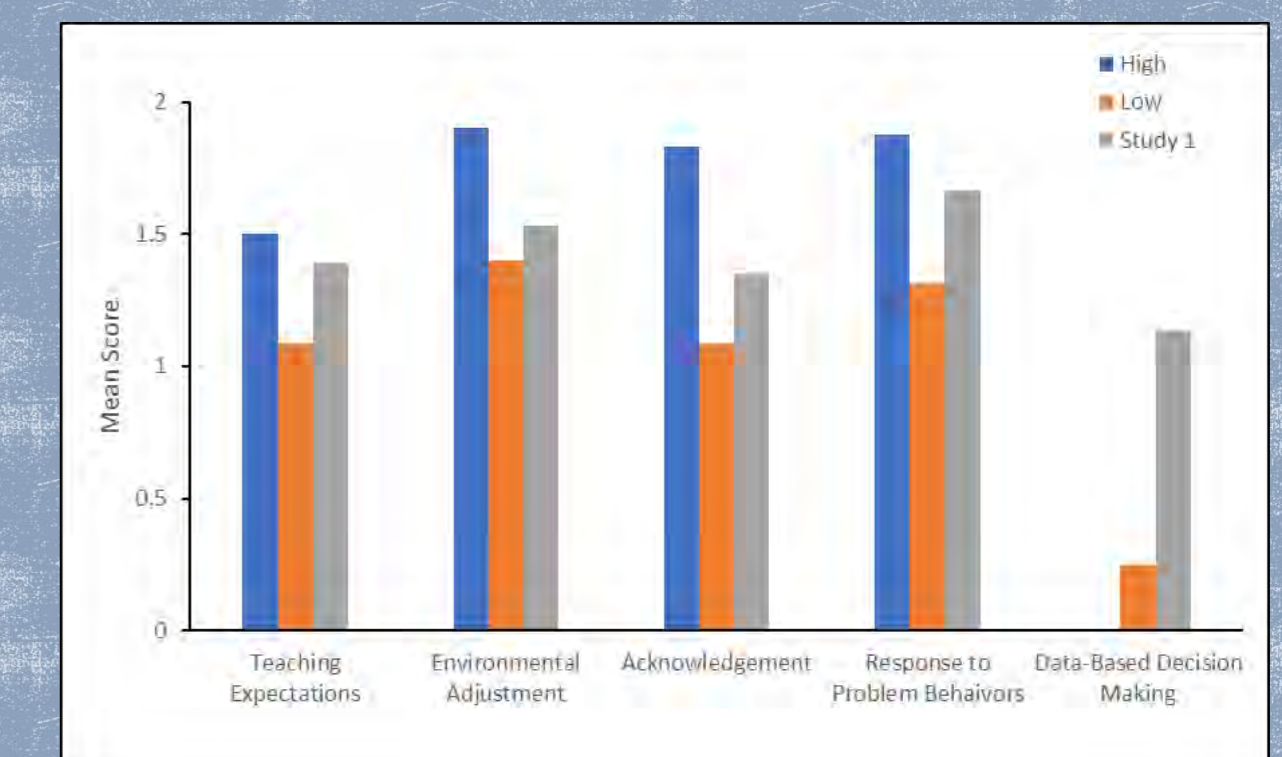


Figure 4. Mean scores for each domain of the checklist.

## Discussion

The CFA result showed an acceptable fit to the five-domain model of the PE checklist for the SWPBS Tier 1 implementation. Based on direct observation, the teachers who scored higher on the acknowledgment domain of the checklist showed higher BSP and GP and fewer reprimand. This correspondence between the self-reported score on the checklist and observed behavior demonstrates the validity of the checklist.

The mean scores of the checklist suggested that there were several domains of PEs that teachers have already conducted, regardless of SWPBS implementation. When we provide teacher training for SWPBS Tier 1 implementation, it might be appropriate to prioritize acknowledgment.

## References

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