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Directed Consultation, the SEALS Model, and Teachers' Classroom Management

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Abstract

Directed consultation is presented as a professional development framework to guide and support teachers in the implementation of evidence-based interventions that involve contextual and process-oriented approaches designed to be incorporated into daily classroom management. This approach consists of four components: pre-intervention observations and interviews with school professionals, professional development workshops, online training modules, and team- and individual-level implementation meetings. In the current study, directed consultation was used to train sixth-grade teachers to use the Supporting Early Adolescent Learning and Social Support (SEALS) program, a multicomponent intervention model, to promote productive and supportive classroom contexts during the transition to middle school. The current report involved classroom observations in 14 schools (7 interventions, 7 controls) as part of a broader cluster-randomized control trial. A total of 144 classrooms were observed in late fall of the sixth grade during ongoing professional development training activities and again in the spring at the completion of the SEALS training. As compared with control classrooms, teachers in intervention classrooms used more positive feedback and less negative feedback and redirection. Furthermore, teachers in intervention classrooms provided more effective use of classroom structure, feedback to students, behavior management, communication with students, groups and social dynamics, and motivation strategies. Results are discussed in terms of implications for professional development activities aimed at enhancing classroom management.

Although key stakeholders welcome efforts to ensure effective classroom management, the use of evidence-based practices in real-world settings has been elusive (Forness, 2005). While there are many reasons for difficulties in promoting the use of evidence-based programs, one issue that impacts the adoption of experimentally validated context and process-oriented interventions is that their relevance and application may not be directly apparent to teachers or readily adapted to how they manage their classroom. Generic professional development models are needed to bridge teachers' perceived classroom management needs and ongoing practices with the critical components and corresponding desired impact of manualized evidence-based strategies. It should be emphasized that the focus here is on interventions to influence the general climate and moment-to-moment activities in the classroom as opposed to specific content-oriented approaches that involve a prescribed scope and sequence with scripted instruction.

To address this need, directed consultation was designed as a professional development framework to train teachers in contextual interventions. This approach is currently being used to train teachers in the Supporting Early Adolescent Learning and Social Support (SEALS) model to create supportive contexts for students during the middle school transition. This manuscript will outline the features and use of directed consultation by (a) summarizing the conceptual foundations of the directed consultation professional development framework, (b) describing the components of directed consultation, and (c) conducting a preliminary examination of the use of directed consultation to facilitate teachers' implementation of the SEALS intervention model.

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Conceptual Foundations of the Directed-Consultation Approach

Directed consultation is grounded in ecological theory which posits that developmental contexts involve hierarchically layered systems that influence each other and the functioning of the individuals within them (Bronfenbrenner, 1979). Based on Bronfenbrenner's (1979) framework, schools can be viewed as a social ecology with four nested levels: microsystem, mesosystem, exosystem, and macrosystem (E. M. Z. Farmer & Farmer, 1999). The microsystem refers to the immediate context in which the individual is proximally situated and is defined as "a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting" (Bronfenbrenner, 1979, p. 22). Teachers experience multiple microsystems including the classroom, the parents of their students, and colleagues they collaborate with during day-to-day activities. The mesosystem involves linkages among the various microsystems in which the individual is embedded such as others who are common across multiple microsystems, communication among or across these settings, and consistency of knowledge, attitudes, and behaviors among various microsystems. From this vantage, linkages between teachers and others in these microsystems may extend beyond the school and include community settings and activities. The exosystem is not a proximal context, but serves as a context of micro- and mesosystems and involves settings in which "events occur that affect, or are affected by, what happens in the setting containing the developing person" (Bronfenbrenner, 1979, p. 237). For the present discussion, this includes policies, guidelines, and the use of resources that impact and are impacted by what happens in the classroom. Finally, the macrosystem can be viewed as the culture in which the school is embedded and involves the paradigms, practices, and general blueprints for these nested systems.

It is helpful to view the activities of leading a classroom from the broader lens of an ecological framework. When teachers are instructing students and managing a classroom, they are not acting alone. Beyond the proximal classroom microsystem, the strategies and activities teachers use are likely to reflect influences and contributions from other teachers, the school administration, parents, school board policies, neighborhood values and expectations, state-level standards, and broader societal views about children, and the role of education and schooling in their development and growth. Thus, efforts to impact what teachers do in the classroom should be responsive to the ecological influences and factors which may simultaneously constrain what teachers can do while also providing them with opportunities, resources, and competencies that otherwise might not be available if they did not have the support of the ecology.

Training and Delivery Framework of Directed Consultation

Bridging the research to practice gap is a fundamental issue in special education (Lewis, Jones, Horner, & Sugai, 2010). Although there is a growing evidence base, teachers continue to use daily behavior management strategies that have not been experimentally validated (Maggin, Robertson, Oliver, Hollo, & Partin, 2010; Stormont, Reinke, & Herman, 2011). The gap between research and practice reflects two related issues. First, there are several potentially problematic steps between the development of interventions, their evaluation, and their implementation in the real world. These complications include lack of involvement of stakeholders in the development and evaluation process, and difficulties in the dissemination and translation of evidence-based strategies in ways that can be readily implemented in typical classrooms (Hoagwood & Johnson, 2003; Reinke, Herman, Stormont, Brooks, & Darney, 2010). Second, the context of rigorous research and the context of daily practice in schools tend to be different. Experimental research limits or statistically controls ecological factors. In contrast, teaching requires being responsive to real-world conditions and constraints that shape the activities of the classroom and students.

Teachers operate within an ecological system including micro- and mesosystems of the immediate school context along with exo- and macrosystem factors (see Figure 1). This means teachers must balance resources, expectations, policies, and practices embraced by stakeholders with the characteristics, competencies, and challenges presented by individual students and the entire class. Teachers' own characteristics impact the types of strategies and interventions that are effective for them when they manage classroom behavior. While evidence-based practices may be available, teachers may be more comfortable using strategies that are consistent with their experiences and skills or that are guided by policies and practices endorsed by colleagues or other stakeholders. Consequently, directed consultation was founded on the belief that to facilitate the adoption of evidence-based practices, it is necessary to (a) use professional development and intervention delivery systems that are responsive to the context in which teachers are embedded, (b) use reciprocal exchanges between professional development trainers and practitioners to link evidence-based practices to the strengths and beliefs of teachers, (c) foster the use of natural resources and the insights of stakeholders including teachers and administrators, and (d) focus on the whole child in context by blending academic, behavioral, and social strategies in relation to the management of the entire class (Cappella, Frazier, Atkins, Schoenwald, & Glisson, 2008; Farmer, Reinke, & Brooks, 2014).

Reflecting core aspects of the adoption of evidence-based practice, the development of directed consultation
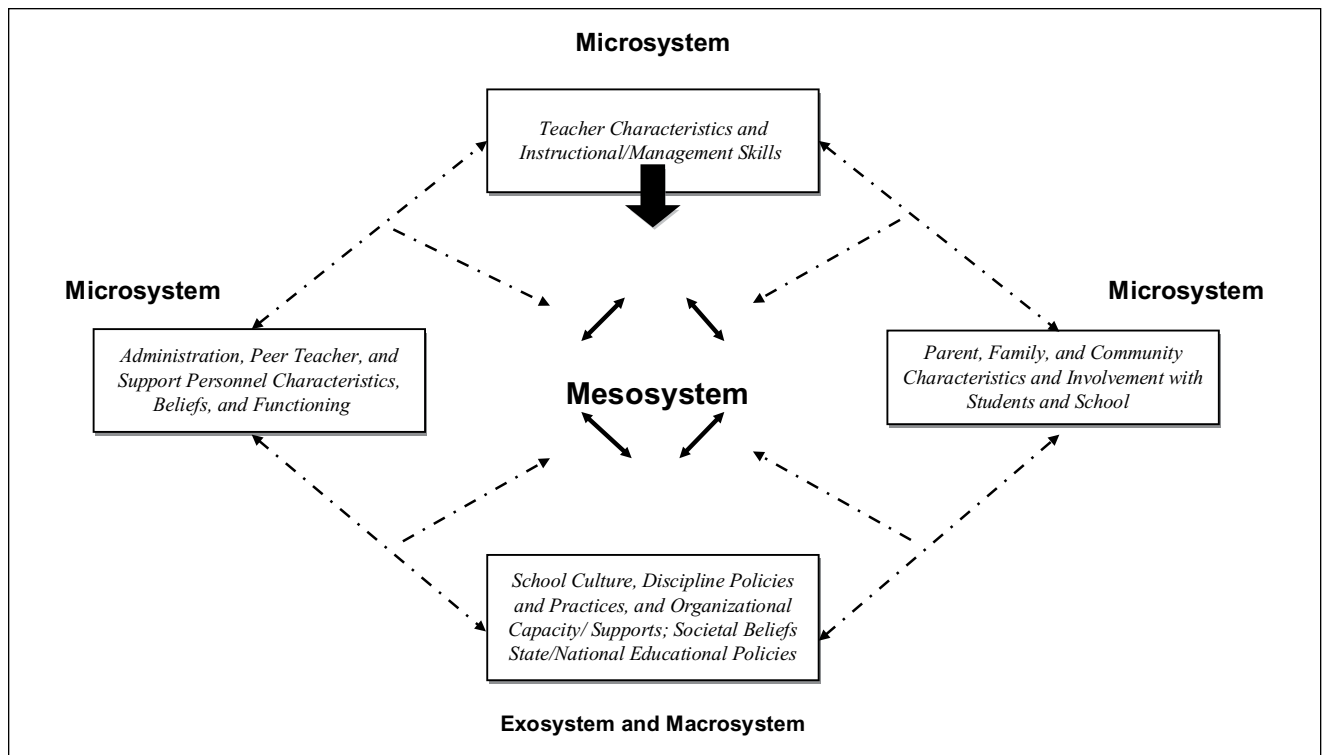
Figure 1. Ecology of classroom intervention.

was guided by the goal of integrating a standardized intervention into the daily activities and culture of the school (T. W. Farmer et al., 2010; Hamm, Farmer, Lambert, & Gravelle, 2013). The directed part involves facilitating the use and implementation of the components of a manualized intervention that is intended to impact the general context and processes of the classroom. The consultation part involves delivering the training in a manner that is responsive to the immediate needs and issues experienced by teachers (i.e., giving teachers the opportunity to take ownership of the training agenda) and adapting the intervention components so they build on the strengths of teachers and school resources, reflect the values and policies of the school community, and are perceived to be a meaningful for promoting students' adaptation and productive engagement.

Directed consultation builds from a variety of approaches in school-based consultation. Consultation is a service delivery model that involves a specialist (i.e., consultant) who provides knowledge and guidance to a consultee (i.e., teacher), who intervenes directly with a client (i.e., student; Kratochwill & Pittman, 2002; Lewis & Newcomer, 2002). Types of consultation have been distinguished by the relationship and role of the various participants. Collaborative consultation involves a nonhierarchical, voluntary relationship between the consultant and the consultee who share in the planning and evaluation of an intervention, whereas the

term expert consultation has been used to refer to an authoritarian relationship in which the consultant directs the activities and decisions about intervention (Graham, 1998). Consultee-centered consultation involves a collaborative focus on a topic of concern for the consultee and centers on considering multiple perspectives to help the consultee reframe the problem in a way that expands his or her conceptualization and repertoire for addressing the initial concern (Knotek & Sandoval, 2003). Behavioral consultation involves observing the classroom and using data about the setting to guide intervention implementation and adaptation (Lewis & Newcomer, 2002). Technology training consultation involves teaching concepts and skills to enhance teachers' capacities to manage the classroom context, while organizational consultation involves the management of organizational and group dynamic factors to foster change (Kratochwill & Pittman, 2002).

Directed consultation reflects several aspects of these approaches to consultation. Rather than being problem-centered and focusing on a specific client, the aims of directed consultation are to (a) identify how teachers can incorporate the essential components of an evidence-based intervention into their daily practices in a way that builds on observations of existing strategies and teachers' competencies (i.e., expert, behavioral consultation), (b) provide new knowledge and skills training (i.e., technology training consultation), (c) respond to concerns and needs of teachers (i.e.,

collaborative consultation), (d) reframe teachers' perspectives to foster productive views of classroom management tasks (i.e., consultee-centered consultation), and (e) promote change at the school and teacher-team level to incorporate evidence-based interventions into classroom management activities (i.e., organizational consultation). Four complementary forms of directed consultation are designed to synergistically address these aims: directed-consultation pre-intervention observations/interviews, directed-consultation workshops, directed-consultation online modules, and directed-consultation team- and individual-level implementation meetings.

Pre-intervention observations/interviews involve identifying strengths and needs of each teacher as well as teams of teachers, assessing the level of collaboration and cooperation among teachers, and identifying how to situate the structure and content of training to incorporate *real-world* issues and examples. Classrooms are observed to determine how particular intervention aims are currently addressed and to consider how the intervention components fit with current classroom practices and functioning. In addition, interviews are conducted with teachers, related service providers, and administrators to determine their perceptions of the strengths, functioning, and needs of the school context that are relevant to the effective implementation of the intended intervention program and to identify formal and informal leaders in the school and teacher teams.

Directed-consultation workshops involve a typical professional development format to introduce the program aims, provide training in core intervention content, and foster productive relationships among teachers and training staff. However, unlike most workshops, core aspects of the program are presented in the context of current intervention approaches in the school, and the discussion and activities are tailored to the strengths and needs of particular schools or teams of teachers. Furthermore, there is active discussion between the intervention training leaders, teachers, the administration, and related service providers about specific implementation approaches and processes. Ultimately, collaborative decisions are made with the school personnel having the lead voice in the decision with the guidance of the intervention training leaders.

Directed-consultation online modules elaborate upon the workshop training content and involve teachers completing a series of activities in a sequence determined in consultation with teachers, which builds from pre-intervention strengths and needs assessments. These activities are designed to provide more intensive details about the application of intervention components and center on teachers' applying the content to issues they experience in the classroom. Each module concludes with the completion of a task submitted to the intervention specialist to assess how well the teacher is applying the concepts and to help guide implementation meetings.

Implementation meetings involve the application of the module content to real-world issues experienced by teachers. This occurs through videoconferencing or face-to-face meetings between teachers and the intervention specialist. Once formal directed-consultation activities are completed, individualized or small group consultation continues on as-needed basis. Across these components, the goal is to foster a training context in which teachers become active participants who bring *real-world* examples and issues to the training. Teachers are encouraged to become collaborative consultants with each other. By the completion of training, teachers are presented with the complete manualized program in an iterative fashion that involves multiple modalities and the application of the intervention to issues they experience on a daily basis.

The Present Study

In the present study, directed consultation was used to provide professional development training to teachers in the use of the SEALS model to support students during the middle school transition. Previous work examined the use of directed consultation and the SEALS model in rural schools (e.g., T. W. Farmer et al., 2010; Hamm et al., 2013). The present study is a preliminary analysis to determine whether the directed-consultation model of professional training supported teachers' use of the SEALS classroom management approaches in metropolitan schools.

The SEALS model involves three complementary classroom management components: Academic Engagement Enhancement (AEE), Competence Enhancement Behavior Management (CEBM), and Social Dynamics Management (SDM; T. W. Farmer et al., 2013). The SEALS program is guided by the view that youth develop as an integrated whole and difficulties in one domain of functioning contribute to and support difficulties in other domains. Reflecting this perspective, youth with emotional and behavioral disorders tend to have school adjustment difficulties that span the academic, behavioral, and social domains (Reinke & Herman, 2002). Accordingly, the three SEALS components are designed to work in an integrative fashion and a primary focus of directed consultation involves helping teachers use the intervention strategies of each model in a coordinated manner to promote classroom contexts that support students' overall adaptation.

Although each SEALS component is a universal classroom context intervention that addresses a distinct domain of school functioning, the components are intended to be used synergistically. The AEE component involves helping teachers establish a structured approach for organizing instructional activities in ways that maintain the attention, involvement, and success of students with learning and behavioral difficulties (Lee, 2006; Sutherland & Farmer, 2009). The AEE training centers on core strategies teachers

can use to begin class, differentiate instruction, and sequence instruction to promote engagement. The SDM component is designed to enhance teachers' awareness of classroom peer group processes and teach them to use this knowledge to foster natural social supports for academic engagement and positive classroom behavior (Farmer, 2000). With this component, teachers learn to identify distinct peer groups, social structures, and students' social roles (e.g., leaders, followers, bullies, victims) in the peer system. An emphasis is placed on using peer group processes to create classroom climates that evoke and reinforce productive academic behaviors. The CEBM component centers on providing teachers with a proactive framework for teaching and reinforcing appropriate classroom behavior while using constructive consequences to reduce problem behavior. The general approach is to manage the classroom in ways that minimize problems while using the occurrence of problem behavior as an opportunity to teach new skills and replacement behaviors. Core CEBM strategies include using expectations to promote positive engagement, redirecting problem behavior at the classroom level, and shaping (i.e., behavior) and structuring (i.e., context) the productive engagement of students who have frequent behavior problems (Farmer et al., 2006; Sutherland & Farmer, 2009).

The purpose of the current study was to conduct a preliminary examination of directed consultation as a professional development delivery framework for the SEALS model. The goal was to assess whether using directed consultation to train teachers in the SEALS content resulted in classroom management practices that were consistent with the program aims. Thus, this study focused on teachers' practices and did not examine student behaviors or academic outcomes. Because of the nature of directed consultation and the aims of this study, a criterion approach was used rather than fidelity or context outcome approaches. With a fidelity approach (e.g., Sutherland, McLeod, Conroy, Abrams, & Smith, in press), the focus is on assessing adherence to a specified intervention protocol and determining teachers' level of integrity and competence in implementing the intervention as intended. With a context outcome approach (e.g., Luckner & Pianta, 2011), the focus is on assessing the impact of teachers' management practices on the environment that students experience in the classroom. In contrast, the current study utilized a criterion approach to determining whether teachers used practices that met specific benchmarks for effective classroom management in the academic, behavioral, and social domains.

Method

As part of a cluster-randomized trial multicohort design, this study reports on the first of two cohorts and involves seven pairs of middle schools from three metropolitan districts of a southern state. One school in each pair was randomly assigned to the intervention condition. Teachers in intervention schools received directed-consultation training in the SEALS model and teachers in control schools continued with typical practices. Teachers' practices were observed in two phases. In the first phase, classroom observations were conducted in the fall while directed consultation was ongoing. These observations focused on the types of feedback teachers gave students to reinforce or redirect classroom activities. For the second phase, observations were conducted in the spring, about 2 to 3 weeks after directed consultation was completed.

Sample

Sixth-grade teachers in intervention and control schools were invited to participate; 144 consented (88%; 79 interventions, 65 controls). Teacher characteristics were comparable across intervention and control conditions. All teachers were licensed and all were certified in the content area they taught. Half (48%) had at least 10 years of teaching experience, with 15% having more than 20 years of teaching experience. All had completed a 4-year college degree; a third (37%) held a master's degree. The majority were White (91%) and female (82%).

Schools were matched within district based on data obtained from the National Center for Educational Statistics for state standardized tests, minority status, and eligibility for free/reduced lunch. Within pairs, schools were highly similar and none were more than 15 percentage points apart on reading and mathematics. Discrepancies in characteristics of the student body did not exceed 10 percentage points. Schools ranged from 64% to 87% on state test scores, 15% to 73% on racial/ethnic minority status, and 27% to 77% student eligibility for free/reduced lunch.

Measures

SEALS Observation Scales (SOS). The SOS captures teachers' practices in eight content areas: classroom structure, feedback to students, behavior management, instructional protocols, communication with students, use of groups and social dynamics, organizational and information processing strategies, and motivation. The SOS was developed to align with the SEALS model and has been used in previous research (Hamm et al., 2013). The rating procedure follows the format of established and validated classroom observation protocols (e.g., La Paro, Pianta, & Stuhlman, 2004; Weiss, Pasley, Smith, Banilower, & Heck, 2003).

The SOS includes a synthesis rating for each of the eight content areas (i.e., classroom management domains) and is informed by observers' ratings for the items within the specific domain. The rating scale used ranged from 1 to 5, coded as follows: 1 (*construct is absent and necessary*), 2

(*construct is present but teacher orientation is negative*), 3 (*construct is present and used favorably but inconsistently*), 4 (*teacher behavior directly reinforces construct*), and 5 (*teacher behavior is not present because it is not necessary*). The total SOS score has high internal consistency (Cronbach's α = .92) and has been show to differentiate intervention from control schools (Hamm et al., 2013). For more than 90% of observations conducted in the present study, interrater reliability was calculated with results from paired-observations. Raters were within one point of each other 89% of the time (i.e., 83%–95% agreement across the eight domains).

Teacher Observation of the Management of Behavior and Academics (TOMBA). An abbreviated version of the TOMBA (Miller, Katz, Gest, Madill, & Rodkin, 2013) was used to measure academic instruction management (positive academic feedback, negative academic feedback) and behavior management (positive/negative feedback, redirection without interruption—proximity, gestural, physical, verbal; redirection with interruption—whole class, individual verbal). The TOMBA is an event-based observation system in which observers record every instance of a specific behavior as it occurs within a specified period. The interrater reliability of the TOMBA has been previously established by the measure's developers with reliabilities ranging from .60 to .98 for the dimensions used in the present study (Miller et al., 2013). In the present study, interrater reliabilities were conducted across pairs of observers in more than 90% of observations with adjacent time periods across the raters (i.e., raters observed two distinct but sequential 15-min periods). Results reflected the range attained by Miller et al. (2013).

School variables. A dummy-coded variable for intervention condition was coded for each school (1 = *intervention*). Seven dummy-coded variables were established to represent each matched pair; schools were coded as 1 if they were the matched pair for that variable.

Procedures

Data collection. Data were collected across two time periods. The TOMBA was used to assess teachers' feedback to students in the fall after teachers completed modules on routines, rules, and expectations but before modules on managing social dynamics and problem behavior. These observations were conducted over a 30-min period with one observer for 15 min and a second observer for the next 15 min. The SOS assessed teachers' classroom management in the spring immediately following the completion of all training activities. Classrooms were observed with the SOS for 15 min by a pair of observers. All observations were conducted while instruction was occurring in the classroom.

As reported above in the description of the measures, interrater reliability agreement was conducted with over 90% of the total observations.

Training implementation. Directed-consultation intervention training involved four activities: pre-intervention site visits, a summer institute, online training modules, and implementation meetings (face-to-face, videoconferencing, email). All training activities were led by a project staff member who was assigned to be the intervention specialist for specific schools. Each intervention specialist had a master's or PhD in special education and had previous experience in intervening with students with learning and behavioral difficulties and in providing training and support to teachers.

Intervention specialists kept logs of teachers' training completion. Across SEALS components, there was a total of 18.5 hr of professional development including the directed-consultation workshop (i.e., summer institute), online module, and implementation meetings. Teachers completed, on average, 16.63 hr (*SD* = 2.14) of training. All but one teacher completed the in-person component of the summer institute; 93% completed the follow-up modules for the summer institute. Variability in hours completed for modules/meetings across teachers occurred primarily because of absences or scheduling conflicts. At one school (*n* = 7 teachers), teachers elected to use email and the blog in lieu of videoconferencing sessions.

Analytic strategies. First, we performed descriptive and bivariate statistics by intervention status to identify differences in the outcome measures between intervention and control teachers. Second, we conducted ordinary least square (OLS) regression analyses to examine whether there were intervention effects on the outcome measures, controlling for the school matched pairs variables. We used the robust standard errors to address the nested nature of the data (i.e., teachers nested within schools), which downwardly adjusts for the inflated standard errors resulting from the violation of the independent errors assumption (Rogers, 1993). Because of the small sample size (i.e., half of the full expected sample at the completion of this study) and the exploratory nature of this research, we report trends (i.e., $p < .10$) as well as differences less than .05.

Results

Descriptive and Bivariate Results

Table 1 presents descriptive statistics for the TOMBA by intervention status. We also present *t*-test results to examine whether there was a significant difference in these variables between intervention and control teachers. Results showed that intervention teachers on average maintained significantly lower levels of negative behavior feedback, physical

Table 1. Descriptive and Bivariate Statistics for the TOMBA by Intervention Status.

Outcome variable	Control			Treatment			*t* statistics for differences between control (1) and treatment (0)
	n	M	SD	n	M	SD	
Positive academic feedback: Correctness/ability	60	5.23	5.66	75	6.88	8.17	−1.33†
Positive academic feedback: Engagement/effort	60	1.33	1.72	75	1.52	2.65	−0.47
Negative academic feedback: Correct/ability	60	1.13	2.04	75	1.13	1.73	0.00
Negative academic feedback: Engagement/effort	60	0.30	0.59	75	0.29	0.67	0.06
Positive behavior feedback: Whole class	60	0.33	1.10	75	0.20	0.57	0.91
Positive behavior feedback: Individual	60	0.57	1.06	75	0.39	1.32	0.85
Negative behavior feedback: Whole class	60	0.72	1.54	75	0.44	0.92	1.29†
Negative behavior feedback: Individual	60	1.00	1.40	75	0.59	1.16	1.87*
Redirection without interruption: Proximity	60	0.68	1.51	75	0.85	3.09	−0.39
Redirection without interruption: Gestural	60	0.60	1.01	75	0.45	0.96	0.86
Redirection without interruption: Physical	60	0.40	0.92	75	0.09	0.41	2.58**
Redirection without interruption: Verbal	60	1.12	1.50	75	0.67	1.40	1.80*
Redirection with interruption: Whole class	60	1.35	2.02	75	1.64	2.19	−0.79
Redirection with interruption: Individual verbal	60	0.92	1.28	75	0.96	1.70	−0.16

Note. TOMBA = *Teacher Observation of the Management of Behavior and Academics* (Miller, Katz, Gest, Madill, & Rodkin, 2013).
*p < .05. **p < .01. ***p < .001. †p < .10, one-tailed tests.

redirection without interruption, and verbal redirection without interruption than control teachers. Differences were statistically significant at the .10 level (one-tailed tests) or less. There were no significant differences in the other TOMBA outcome measures between the treatment and control teachers.

Table 2 presents descriptive statistics for the SEALS outcome measures by intervention status. Again, we present *t*-test results. Significant differences were found in classroom structure, feedback, behavior management, instructional protocol, and appropriate communication between the intervention and control schoolteachers, favoring intervention. On average, intervention teachers also showed higher levels of the use of groups and social dynamics, and relevant and meaningful motivation than controls, but these differences were not statistically significant.

Regression Analysis Results

Table 3 presents results from the OLS models estimating intervention effects on the TOMBA outcome measures. Note that we included the school-blocking variables to control for potential heterogeneity across the school matched pairs but did not present their coefficients and standard errors because our interests are in intervention effects. Also note that we present results only for the four TOMBA outcome measures where there were significant intervention effects. There were significant intervention effects on positive academic feedback on correctness/ability, negative behavior feedback for individual students, physical redirection without interruption, and verbal redirection without interruption. Teachers in SEALS schools showed a significantly higher level of positive academic feedback in terms of correctness/ability and significantly lower levels

of negative behavior feedback for individual students, physical redirection without interruption, and verbal redirection without interruption (see Table 1).

Table 4 presents results from the OLS models estimating the treatment effects on SOS outcome measures. We included school-blocking variables to control for potential heterogeneity across the school matched pairs, but did not present their coefficients and standard errors because our interest is in the intervention effects. We present only the results for outcome measures for which there were significant intervention effects. Teachers in SEALS schools maintained significantly higher levels of classroom structure, feedback, behavior management, instructional protocol, appropriate communication, and use of groups and social dynamics than teachers in schools where the intervention was not implemented. There were no significant treatment effects on organization and information processing, and relevant and meaningful motivation, once controlling for the school-blocking variables. These OLS results were different from the descriptive results presented above where there were significant differences between the intervention and control groups only in classroom structure and feedback. This difference might suggest that there were some preexisting differences across the school matched pairs, and thus treatment effects became more evident for most SEALS outcome measures once we controlled for this heterogeneity across the matched pairs.

Discussion

This preliminary investigation of directed consultation to train teachers in the use of the SEALS program suggests this approach does impact classroom management practices. As compared with teachers in control schools,

Table 2. Descriptive and Bivariate Statistics for the SOS by Intervention Status.

	Control			Treatment			*t* statistics for differences between control (1) and treatment (0)
Outcome variable	*n*	*M*	*SD*	*n*	*M*	*SD*	
Classroom structure	61	2.90	0.89	77	3.21	0.92	1.97*
Feedback	61	3.03	0.95	76	3.37	0.92	2.09*
Behavior management	62	3.00	0.91	77	3.23	0.86	1.56[†]
Instructional protocol	62	3.37	0.89	76	3.58	0.68	1.56[†]
Communication appropriate	62	3.19	0.67	76	3.37	0.76	1.41[†]
Use of groups and social dynamics	62	3.32	0.95	75	3.51	0.99	1.10
Organization and information processing	62	3.42	0.90	76	3.28	0.83	−0.97
Relevant and meaningful motivation	61	3.44	0.72	77	3.45	0.72	0.10

Note. SOS = SEALS Observation Scales.
*$p < .05$. **$p < .01$. ***$p < .001$. †$p < .10$, one-tailed tests.

Table 3. OLS Model Estimating Treatment Effects on TOMBA Outcome Measures.

	Positive academic feedback: Correctness/ability		Negative behavior feedback: Individual		Physical redirection without interruption		Verbal redirection without interruption	
Variable	Coefficients	SE	Coefficients	SE	Coefficients	SE	Coefficients	SE
Treatment	2.11*	1.06	−0.38*	0.18	−0.27**	0.08	−0.41[†]	0.24
Intercept	2.06*	0.84	1.12*	0.50	0.25[†]	0.14	0.68[†]	0.39
R^2	.188		.127		.094		.075	

Note. $n = 135$ for each behavior. OLS = ordinary least square; TOMBA = *Teacher Observation of the Management of Behavior and Academics* (Miller, Katz, Gest, Madill, & Rodkin, 2013).
*$p < .05$. **$p < .01$. ***$p < .001$. †$p < .10$, one-tailed tests.

Table 4. OLS Model Estimating Treatment Effects on SEALS Outcome Measures.

	Classroom structure		Feedback		Behavior management		Instructional protocol		Communication appropriate		Use of groups and social dynamics	
Variable	Coefficients	SE	Coefficients	SE	Coefficients	SE	Coefficients	SE	Coefficients	SE	Coefficients	SE
Treatment	0.33*	0.13	0.33**	0.11	0.27**	0.09	0.26**	0.09	0.15*	0.07	0.18*	0.09
Intercept	2.69***	0.17	3.05***	0.08	2.59***	0.08	3.03***	0.25	3.25***	0.13	3.01***	0.34
R^2	.105		.073		.080		.088		.043		.052	
n	138		137		139		138		138		137	

Note. School-blocking variables are included in models but not presented here. Robust standard errors are used to address the nested nature of data (i.e., teachers nested within schools). There were no statistically significant treatment effects on *Organization and Information Processing* and *Relevant and Meaningful Motivation.* OLS = ordinary least square; SEALS = Supporting Early Adolescent Learning and Social Support model.
*$p < .05$. **$p < .01$. ***$p < .001$, one-tailed tests.

teachers who received the SEALS professional training tended to use more positive classroom management approaches with students and they appeared to create an environment that reduced the need for reactive strategies. At the beginning of the school year, after the completion of the summer institute but before the completion of all training modules, teachers in intervention classrooms used more positive feedback that was oriented toward students' academic performance and less negative behavioral feedback and redirection. In the spring after the completion of all training components, teachers in intervention schools, as compared with teachers in control schools, had significantly higher mean ratings that were in the favorable range for six of eight SOS indicators of effective classroom management: classroom structure, feedback to students, behavior management, instructional protocols, communication with students, and the use of groups and social dynamics. These results indicate that directed consultation promoted

teachers' use of context level strategies that were presented as part of the SEALS program and they suggest this approach may be a promising professional development framework for training teachers in process-oriented interventions.

The findings from the TOMBA observations conducted in the fall before training was complete demonstrate the synergistic focus of the SEALS model. One goal of this program is to create a context that promotes students' engagement and reduces the need to directly address problem behavior at the individual student level (T. W. Farmer et al., 2013). The fall observations suggest that control teachers used more verbal and physical redirection and also used more negative behavioral feedback. Differences between intervention and control teachers at the beginning of the school year may reflect an important strength of the SEALS program with regard to creating a context that supports students' academic engagement.

The results for the fall TOMBA observations may reflect several factors that provide important insights into the SEALS training. First, during the summer institute and the initial online modules and directed-consultation activities, training content centered on creating routines and structures to promote students engagement in academic instruction. Second, teachers were taught that providing frequent feedback on academic performance is an important way to sustain students' effortful momentum and attention to instructional activities (Lee, 2006). Teachers in intervention schools provided much more academic feedback. On this score, our aim was to enhance teachers' feedback for effort and engagement rather than correctness. The teachers in intervention schools were higher than control teachers on both forms of feedback, but differences were significant only for correctness/accuracy. Teachers in the intervention schools may have interspersed feedback for effort and engagement in between feedback for accuracy in a way that kept students engaged in instruction and that reduced the need for redirection. Third, teachers who received the SEALS training were taught to use whole group redirection rather than calling out students individually. Whole group redirection appeared to be a primary form of redirection used by intervention teachers and it is possible that differences between the two groups reflected the intervention teachers' efforts to avoid public, individually directed reprimands.

The results for the spring SOS observations also provide important insights into the impact of the SEALS professional training. First, the mean scores and standard deviations across intervention and control groups suggest that teachers who received SEALS training were more likely to use effective strategies but some were using them inconsistently, while many control teachers appeared to be using less effective strategies with a more negative valence. Therefore, while these results suggests that directed-consultation training in

the SEALS program promoted the use of more effective and positive strategies, there is room for improvement with regard to identifying ways to strengthen the consistent use of such approaches. It is interesting to note that for the two domains (i.e., Organization and Information Processing; Relevant and Meaningful Motivation) of the SOS where there were no differences between control and intervention teachers, teachers in both conditions had their highest scores. It is likely that these two domains were impacted by the fact that during the intervention year the department of instruction for the state required schools to adopt the Common Core State Standards and as a result, all teachers received mandatory professional development in rigorous academic instruction that included a focus on strategies related to these two domains of instructional engagement.

Collectively these results are promising. Yet, much more work is needed. Currently, the SEALS program is designed to be a universal model and the emphasis is on training teachers in strategies delivered in a standard format to meet specific implementation criteria (see Farmer et al., 2014). While the SEALS model and the directed-consultation approach are designed to be responsive to local needs, school and community resources, the characteristics of the general classroom ecology, and teachers' strengths and proclivities, there is considerable room for continual adaptation of this approach so that it is maximally responsive to the needs of students and teachers. This is the point at which there is a need to bring the evidence base and the priorities of consumers and stakeholders into alignment (see Cappella et al., 2008; Hoagwood & Johnson, 2003; Stormont et al., 2011). Directed consultation may be particularly well suited for this purpose. However, there is need to move beyond observational approaches that are designed simply to assess how to make training consistent with the features of the ecology. Rather, there is a need to add a feedback system that uses observations and other measurement approaches to assess areas of need in specific classrooms, to clarify specific leverage points, and to provide teachers with direct feedback and explicit guidance on how to make modifications in their classroom management approaches to achieve desired outcomes. When this adaptation is developed, the promise of direct consultation as an approach to promote effective process-oriented classroom management strategies is likely to be realized.

Limitations and Future Research Needs

This study has four limitations that should be addressed in future research. First, this study examined directed consultation as a professional development delivery format to train teachers in a process-based classroom context intervention. However, the research design did not disentangle the directed-consultation approach from the SEALS content. Whether teachers used certain practices effectively

could be impacted by the content of the training and not how it was delivered. Future work on directed consultation should include different types of content, experimental comparisons with other delivery formats, and assessments of social validity. Second, this investigation is preliminary and only examined available data from Cohort 1. A more complete and accurate picture of the impact of directed consultation and the SEALS model will be available when the intervention phase of the project is completed with both cohorts. Third, the focus of this study was only on teachers' classroom management practices and these practices were not linked to student outcomes (i.e., academic achievement, behavior problems, bullying and victimization) or to various process mechanisms (e.g., student engagement, peer group and social adjustment factors, and teachers' awareness of social dynamics) that are expected to mediate the relationship between classroom management and student outcomes. These analyses will be conducted when all phases of this program of research are completed. Fourth, some constructs examined in this study may not be easily identified with observation measures or may require more frequent and extended observation periods. With more than 140 classrooms, a study of this magnitude constrains the amount of time that can be devoted to structured observations. Other measures are needed to examine less visible (i.e., social dynamic management techniques, preventive strategies) or low base-rate (e.g., transition management, intervening with incidents of bullying and victimization) classroom management strategies.

Conclusion

The current study suggests that directed consultation shows promise as a professional development training delivery format to support teachers in using effective classroom management strategies. The findings reported here provide preliminary evidence that teachers who received directed consultation in the SEALS model were generally less negative in their management of the classroom and suggest that they may use more effective general classroom management strategies including the establishment of structures, feedback, and communication approaches that reduce their need to redirect problem behavior. While additional research is needed to fully evaluate the impact of directed consultation and the SEALS model, it appears that this approach may be a useful way to enhance teachers' integration of process and context-oriented intervention strategies into their day-to-day classroom management practices.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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