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Teacher learning on problem-solving teams

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ABSTRACT

Problem-solving teams address student difficulties. Teams comprised of teachers, specialists, and administrators identify the student problem, develop individualized interventions, and assess student change. Teacher experiences of teams are understudied. In a prospective, mixed-method study conducted in the United States, 34 teachers were followed through the team process. Interview coding showed that 60% of teachers reported they gained new intervention skills. Yet, 40% of teachers reported no professional benefits. Logistic regression showed that differences in teacher learning were partially explained by teachers' negative or positive expectations at the outset of the team. The expectancy effects have implications for teacher professional development.

1. Introduction

Across the United States (US), schools are using problem-solving teams to develop individualized interventions for students who are having difficulty in their classrooms (Buck, Polloway, Smith-Thomas, & Cook, 2003; McDougal, Clonan, & Martens, 2000; Truscott, Cohen, Sams, Sanborn, & Frank, 2005). The emphasis on intervening with struggling students and systematically assessing their response to the intervention was codified in US federal policy for public schools. The *Individuals with Disabilities Education Improvement Act* (IDEIA, 2004) enables schools to gather information learned from students' response to intervention, which then can be used to determine the presence a specific learning disability (Griffiths, Parson, Burns, VanDerHeyden, & Tilly, 2007; Jimerson, Burns, & VanDerHeyden, 2007). School districts across the US began implementing initiatives to systematically intervene with struggling students and assess their progress (Griffiths et al., 2007). One type of initiative uses a problem-solving approach, in which teachers refer their students to a team comprised of school staff who assess the students' difficulty and develop a plan to remediate the problem (Bergan & Kratochwill, 1990; Burns & Symington, 2002). General education teachers typically refer a student to the team, participate in the problem-solving process, and implement the intervention (Fuchs, Fuchs, Bahr, Fernstrom, & Stecker, 1990; McDougal et al., 2000).

Given the emphasis on student remediation, research on problem-solving teams have examined whether the team efforts are associated with student improvement (Burns & Symington, 2002; Fuchs et al., 1990; McDougal et al., 2000). Few studies have examined teacher experiences on the teams. Using a consultative problem-solving approach, the team model has the potential to be an avenue for professional development for general education teachers (Buck et al., 2003). Teacher capacity may increase as teachers learn new skills in individualized, student interventions.

Whether some teachers experience the problem-solving team process as a professional development opportunity remains open to question. Little is known about why some teachers perceive that they benefit from the process. Addressing this gap, the current study examines teacher perceptions of professional development "ripple effects" of the problem-solving team process. In addition, it examines why only some teachers report benefits from the process. Specifically, it identifies whether years of teaching experience and expectations for a successful process at the initiation of the referral are linked to later teacher reports of their own professional gains through the process.

1.1. Capacity building with teachers

In numerous nations, there is a profound need to increase teacher capacity and better serve students (Akiba, LeTendre, & Scribner, 2007). In fact, teachers often acknowledge they require additional

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support and training. For instance, a recent international survey showed that 63% of teachers sampled in Brazil and 42% of teachers sampled in Hungary reported they had a high level of need for professional development to address students' special learning needs (Organisation for Economic Co-operation and Development [OECD], 2009). Teacher professional development has long been cited as crucial for training teachers to better address the educational needs of their students (Luna, Gonzalez, Robitaille, Crespo, & Wolfe, 1995; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

Efforts to build teacher capacity usually take the form of single session professional development workshops, which have little follow-up (Darling-Hammond, Chung Wei, Andree, Richardson, & Orphanos, 2009; Klingner, 2004). Opportunities for professional growth need to be sustained and integrated into school hours (Darling-Hammond, 2005; Wayne, Yoon, Zhu, Cronen, & Garet, 2008; Yoon et al., 2007). Current reform initiatives in the US may provide promising opportunities for such growth.

As part of the reforms related to special education eligibility (IDEIA, 2004), US public schools have sought to create a system of assessment and intervention that increase in intensity when a struggling student is not responsive to classroom wide instructional improvements. In the increasingly utilized Response to Intervention (RTI) process, the highest tier of intensity can involve a problem-solving team model (Griffiths et al., 2007). Historically, a similar problem-solving model has also been a part of what some schools called, a "prereferral intervention" process (McDougal et al., 2000). The term "prereferral" was used given that intervention occurred prior to and possibly in lieu of a student's referral for special education testing. Whether in the more current RTI process or in the past prereferral process, the problem-solving team model is typically led by a small group of teachers, school administrators, specialists, and school psychologists who collaboratively specify a student's difficulties and choose interventions to address the targeted problems (Buck et al., 2003, Griffiths et al., 2007; Marston, Muyskens, Lau, & Canter, 2003). The team examines baseline measures of the student's difficulties and identifies ways to assess change over time (Buck et al., 2003). Then, an intervention with the student is implemented and student progress is monitored. The collaborative team reconvenes to assess progress and decide on next steps in addressing the difficulties. Successful teams typically have an interdisciplinary problem-solving approach that offers teachers structured consultation (Burns & Symington, 2002; Graden, Casey, & Christenson, 1985).

Social cognitive theory provides the theoretical rationale for why problem-solving teams may offer professional development opportunities (Bandura, 1997). During the problem-solving team process, a team of school professionals recommends new intervention ideas to address the referred student's difficulties and typically teachers implement the new ideas in their classrooms. Teachers have an opportunity to increase their sense of self-efficacy at addressing student difficulties through what Bandura (1997) calls an "enactive mastery experience." He argues that when people competently perform a new skill and they receive social validation, it increases their personal sense of control over events. Teachers on problem-solving teams have the opportunity to implement a new skill and receive validation from their team and from the improved performance of their student. As suggested by Stokes and Baer (1974), the natural contingencies of social interactions when using an individualized intervention with a referred student may increase the likelihood of its future use with another child (Freeland, 2003). In other words, if an intervention is successful, then a teacher's use of the intervention will be reinforced. Interventions that include behavioural rehearsal, or practice with newly learned skills, have been shown to change behaviour (e.g., Botvin & Kantor, 2000; Sukhodolsky, Golub, & Stone, 2005). Moreover, teachers who practice a newly acquired intervention skill engage in active learning, which is considered a quality indicator of good professional development programs (Desimone, Garet, Birman, Porter, & Yoon, 2003).

The few studies that have examined the enhancement of teacher intervention skills through the problem-solving team process have provided inconclusive results. Johnson and Pugach (1996) found that teachers who participated in peer-collaborative, structured dialogues about individual students showed increased confidence in addressing student problems and reduction in referrals to special education. The intervention teachers also broadened their definition of what they called "ideal, teachable students" to include those with a wider range of cognitive abilities. Harrington and Gibson's (1986) study yielded conflicting results. They found that in a survey of teachers involved on prereferral teams, only 2 of the 41 teachers felt they learned new interventions. Given that these studies were conducted over a decade ago and that they offer mixed findings, additional research is needed to clarify whether the team process improves classroom skills, as reported by teachers themselves.

1.2. Expectancy processes and teacher gains on problem-solving teams

Teachers vary in the degree to which they benefit from teacher professional development opportunities (Loughran, 2006). There are numerous factors which may contribute to why some teachers may not benefit from problem-solving teams (Chalfant & Pysh, 1989), including factors related to the team (e.g., a lack of expertise or support from team members) and student factors (e.g., difficulties that need remediation beyond what the school can provide). While team and student factors are likely important to consider, teacher characteristics that distinguish why some teachers benefit more than others have been largely unidentified. Promising characteristics to examine are years of teaching experience and expectations at the outset of a professional development opportunity. Novice teachers, compared to veteran, must rapidly acquire new skills to face the challenging demands of leading classroom instruction (Little & Robinson, 1997). They may be eager for new learning opportunities, and, therefore, draw on colleagues' mentorship on the teams.

Another teacher characteristic that may explain why some teachers gain more from problem-solving teams than other teachers is their expectations at the outset of the process. With 80 elementary school teachers from two states, Lane, Mahdavi, and Borthwick-Duffy (2003) found that almost 60% of teachers expected to acquire interventions to use in their classroom and 50% of teachers hoped to obtain professional support. In contrast, other teachers indicated that they viewed the referral as a first step toward special education placement. About 30% of the teachers in their California sample held this expectation.

Some teachers may have had negative past experiences with the problem-solving team process, in which they experienced little support and little student progress. Some teachers, thus, may enter the prereferral process anticipating the process will do little to address the student difficulties. In turn, the negative expectations at the outset of the prereferral process may be associated with their own lack of perceived benefits from the process. Expectancy theory suggests that perceptions and judgments can influence the outcome of events (Rosenthal, 2003). No research has examined expectancy processes and teacher experiences of problem-solving teams.

The bulk of research on teacher expectations has focused on student achievement (Weinstein, 2002). A rigorous study showed that teachers' low expectations for students in the early grades contributed to their later low achievement, through a self-fulfilling prophecy (Kuklinski & Weinstein, 2001). A similar process may occur with teacher expectations about the problem-solving team process.