Teachers' Perception of Satisfaction, Skill Development, and Skill Application After Instructional Consultation Services

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A primary hypothesized outcome of consultee-centered consultation, including instructional consultation (IC), is that consultees will become more skilled. However, these claims have not been well researched. Data from 274 teachers implementing IC were analyzed to investigate perceptions of satisfaction and skill development. Results indicated that teachers were highly satisfied, perceived outcomes to meet or exceed their expectations, and felt confident about handling similar problems in the future. The majority reported learning one or more skills or strategies from participating and indicated generalization of skills learned from IC to other students. Relationships between satisfaction, generalization, and perceived outcomes are also presented. Although based on descriptive methodology, this analysis of teachers' perceptions of IC provides a window into their experiences.

Keywords: *staff development; teacher education/preparation; professional development*

Some researchers suggest that the single greatest effect on student achievement is teacher quality (Hanushek, 1999; National Research Center on English Learning and Achievement, 1998), and recent legislation has increased the attention and emphasis placed on the role of the classroom teacher in student achievement. The No Child Left Behind Act (2002) requires a "highly qualified teacher in every classroom," and the most recent reauthorization of the special education law (Individuals with Disabilities Education Improvement Act [IDEIA], 2004) emphasizes that a child must have been provided with effective instruction prior to being considered for special education services. The Response to Intervention process within the reauthorized IDEIA also requires that the response of students demonstrating a need for early intervention services be assessed only after receiving high-quality, evidence-based instruction. Although commendable, the goal for improved instruction stands in stark contrast with the reality of current practice. For example, a recent survey by the U.S. Department of Education found that fewer than 36% of current teachers feel "very well prepared" to implement curriculum and performance standards, and less than 20% feel prepared to meet the needs of diverse students or those with limited English proficiency (U.S. Department of Education, 2002).

In response, states and educational organizations have begun to pursue different ways to recruit teachers and provide preservice training for those desiring to become teachers and are seeking coordinated and focused efforts to increase the skills and knowledge of existing professionals. Enhancing the quality of instruction as a means to promote greater student achievement will require teacher professional development opportunities that are relevant, ongoing, and embedded (Borman & Rachuba, 2000). A recent examination of the literature found that the most effective professional development opportunities (a) were carefully structured and purposefully

directed, (b) increased opportunities for collaboration and problem solving, (c) emphasized increasing teachers' content and pedagogical knowledge and skills, (d) included analyses of student learning data to guide the process, and (e) were largely school- or site-based in the delivery of training (Guskey, 2003).

Although few methods of professional development can achieve all of these critical characteristics, consultee-centered consultation (Knotek, Kaniuka, & Ellingsen, 2008) may represent a useful and efficient means to enhance teachers' instructional practices. A major concept of consultee-centered consultation is that consultants help consultees with current work problems in order to increase consultees' knowledge, skill development, objectivity, or confidence (Caplan, 1970) so that consultees can deal more effectively with work-related problems in the future (Knotek & Sandoval, 2003). Therefore, the goals of consultation are twofold. One goal is to address the student's presenting problem and a second, equally important goal is to prevent future problems (Gutkin & Curtis, 1999), in part through the enhancement of teacher skills. The consultation model presented in this study has, as a major goal, teacher skill development.

Research on Consultation's Effect on Teachers

Most consultation research to date has focused on student achievement or attainment of goals (Sheridan, Welch, & Orme, 1996) as well as the reduction of the number of special education referrals (Gravois & Rosenfield, 2006; Henning-Stout, Lucas, & McCary, 1993; Nelson, Smith, Taylor, Dodd, & Reavis, 1991; Ponti, Zins, & Graden, 1988; Rosenfield, Silva, & Gravois, 2008). However, the preventive outcomes of consultation have not been as well investigated (Frank & Kratochwill, 2008; Riley-Tillman & Eckert, 2001). As Sheridan et al. (1996) noted in their review of the research on consultation effectiveness,

> More attention to outcomes beyond the client level is needed. Commonly noted consultation goals often include changes in consultees' skills or attitudes, as well as systemwide functioning. However, it is interesting that these outcomes are rarely measured. Further, it is often assumed that consultation services can prevent future problems through the generalization of consultees' improved skills and knowledge; however, there is virtually no research assessing this phenomenon. (p. 351)

Effect on Teachers' Perceptions

There is some evidence that consultation positively affects the ways in which teachers conceptualize their students' problems. Specifically, studies have documented improvements in teachers' problem-solving abilities and their perceived abilities to handle similar problems in the future (Curtis & Watson, 1980; Weissenburger, Fine, & Poggio, 1982). However, there were mixed findings on the impact of consultation on teacher attributions of the causes of students' problems (Ponti & Curtis, 1984; Stine, Curtis, & Zins, 1989; Wehmann, Zins, & Curtis, 1989). These studies, although limited in number and design, suggest some potential cognitive changes that occur within teachers during consultation.

Effect on Teachers' Skills

There is some indication that teachers' skills and practices are enhanced or improved through consultation. In survey studies of teachers' experience with consultation (e.g., Gutkin, 1986; Maitland, Fine, & Tracy, 1985), teachers reported that they felt their professional skills improved as a result of consultation. In addition, other studies have explored the impact that consultation has on teachers' generalization of skills learned in consultation for future problems (e.g., Riley-Tillman & Eckert, 2001). There is initial evidence to suggest that teachers use the skills they learned during consultation with other students (Jason & Ferone, 1978; Meyers, 1975; Meyers, Freidman, & Gaughan, 1981; Riley-Tillman & Eckert, 2001). However, most of these studies, although valuable, have been narrowly focused on behavioral consultation models and on teachers' generalization of new behavioral strategies learned (e.g., use of verbal praise); they do not investigate changes in instructional planning, delivery, assessment, or task choice, all of which are essential to students' academic success.

Teacher Satisfaction With Consultation

Overall, teachers tend to report high satisfaction with or preference for consultation services (Cowan & Sheridan, 2003; Gutkin, 1980; Gutkin, Singer, & Brown, 1980; Rieke, 1979; Sheridan, Eagle, Cowan, & Mickelson, 2001; Wickstrom, 1995). While teacher satisfaction with consultation services continues to be reported, understanding and interpreting these results appear more complex. Multiple and competing social and psychological explanations can be used to interpret these highly positive results (Hughes, 1983; Kiesler, 1983; Lebow, 1982; Scheirer, 1978; Schwartz & Baer,

1991), and methodological issues have been known to plague this line of research (e.g., see Bornstein & Rychtarik, 1983; Hawkins, 1991; Lebow, 1982).

The study of teacher satisfaction and acceptability is often considered important because satisfaction and acceptability are assumed to lead to better implementation and outcomes (Witt & Elliott, 1985). However, the causal relationship between the two has yet to be established (Eckert & Hintze, 2000), and recent research indicates that teachers' satisfaction with consultation was not related to actual student gains (Sheridan et al., 2001). This is consistent with research in related fields (e.g., job satisfaction) in which a low correlation has been found between reported satisfaction and behavioral indices of satisfaction (e.g., low absenteeism, low turnover). There is still a need to investigate this relationship within the area of school-based consultation because satisfaction measures are often used as an outcome measure. Relating teacher satisfaction to other measures of teacher change is one option for studying the behavioral indices of teacher satisfaction with consultation.

Instructional Consultation (IC)

IC is a school-based consultation model developed by Rosenfield (1987, 2008) that represents a form of consultee-centered consultation. IC is characterized by a collaborative problem-solving process to address both academic and behavioral referral concerns of teachers. The primary goal of IC is to create and maintain student success within the general education classroom by enhancing the capacity of the teacher to provide empirically supported instruction and management techniques for students who are at risk. The underlying assumptions of IC hold that to facilitate the learning of all students, (a) the instructional match, teacher-student relationship, and setting are the focus of problem solving, and (b) a strong problem-solving and learning community in the school is the foundation for professional and student success. Thus, teacher professional development is a critical component of the process.

In the IC problem-solving process, teachers and consultants work collaboratively through a series of problem-solving stages to improve student performance. The stages include contracting, problem identification, intervention design and implementation, evaluation and modification, continuation, or termination. During the problem-identification stage, focus is placed on the use of instructional assessments (Gravois & Gickling, 2008) and data collection techniques to assess students' current level of functioning, set observable and measurable goals, and create an instructional match in order to promote student success. Student behavior and/or learning outcomes are then graphed and charted by the teacher and his or her consultant to document progress and guide intervention decisions. There is evidence supporting the fact that the use of such procedures increases teacher effectiveness and student outcomes (Bahr, Whitten, Dieker, Kocarek, & Manson, 1999; Fuchs, Fuchs, & Bishop, 1992).

IC is often delivered within the educational setting as part of a larger team-based model termed *IC Teams* (Rosenfield & Gravois, 1996). IC Teams were designed to expand IC to promote schoolwide collaborative problem solving and to assist more teachers with classroom concerns (Gravois & Rosenfield, 2002). The IC Team is comprised of administrators, support personnel, special educators, and general educators, who are typically selected based on strong interpersonal skills, willingness to learn, experience, and credibility within the school building. Instead of a teacher meeting with the entire team to engage in "group problem solving," the teacher meets one-on-one with his or her assigned team member, termed a *case manager*. Working collaboratively, the case manager and teacher design and implement instructional and management practices within the classroom to address specific and measurable goals.

Each team member is trained in the IC process to provide support for the teacher through the stages of problem solving. This training includes enhancement or development of skills in the areas of collaborative communication, problem solving, and instructional and behavioral assessment. Team members all attend a 3-day workshop in the skills of communication and then engage in weekly training delivered on-site by the IC Team facilitator at each team meeting. Therefore, all team members are selected and trained in the skills necessary to work with teachers on any type of classroom concern that is referred (e.g., academic or behavioral). With this case management training, case managers are prepared to have expertise in the consultation content and process itself but also to rely on the teacher's own expertise, with the goal being to enhance the teacher's ability to solve his or her own problem.

Although the effect of IC and IC Teams on student outcomes has been researched (Gravois & Rosenfield, 2002, 2006; Levinsohn, 2000; Ray, 2005; Rosenfield et al., 2008; Silva, 2007), only three studies to date have been conducted to understand the effect of IC on teachers. In an interview study with five school-based professionals (i.e., general education and special education

teachers, school psychologist, and principal) in one urban school, participants reported (a) development of professional skills, specifically data-based decision making and improved instruction; (b) changes in professional beliefs about student problems; (c) changes in staff mood and motivation; and (d) effects on individual student success and whole-class success through teacher generalization of skills learned as well as effects on the school culture of collaboration and support (Costas, Rosenfield, & Gravois, 2001). This small pilot study provided anecdotal evidence that teachers and IC Team members gain assessment and intervention skills through consultation and that they, in turn, use those skills and strategies with other students.

Knotek, Rosenfield, Gravois, and Babinski (2003) found that teachers went through many conceptual changes as a result of IC Teams. In this qualitative study, using audiotapes, interviews, observations, and record review, the researchers documented how teachers shift their focus from global issues to more specific, positive, and achievable goals. Participants reported that they reframed the problem and focused on what the student could do. Additionally, teachers were found to become more comfortable with data collection and using data to guide instructional decision making.

In an experimental study of the effects of IC Teams on teacher efficacy, instructional practices, collaboration, and job satisfaction, Vu et al. (2008) surveyed teachers about their beliefs and practices. The sample includes 1,440 teachers from 34 public elementary schools in one school district. Schools were matched and then randomly assigned to a treatment or control group. A multilevel model tested the effects of IC Teams on teacher outcomes after the intervention had been implemented for 1.5 years in the schools. Results indicate that IC Teams had a significant modest effect (d = .19, p < .05) on teacher efficacy. No significant effects were found for the other teacher variables, but methodological concerns were raised about the section of the survey attempting to measure teacher instructional practices (Berger & Kaiser, 2008).

Purpose of the Study

The purpose of the current study was to describe in more detail teachers' perceptions and practices within a particular model of consultee-centered consultation: IC (Rosenfield, 1987, 2008). The study investigated teachers' satisfaction with IC, their perceptions of skills and strategies learned as a result of engaging in the IC process, and the relationship between the two. Teachers' self-reports were investigated to determine teachers' overall satisfaction as well as to explore the relationship between satisfaction and teacher perception of consultation outcomes. Of particular interest were teachers' perceptions of the preventive outcomes of IC, specifically the effect on teacher confidence, use of strategies with other students, and anticipated future use. This study focuses solely on teachers' perceived experience with IC. Therefore, teacher data were not analyzed in conjunction with student data for this preliminary study. Limitations of this monomethod design and implications for future research will be discussed.

Method

Participants

During 2000–2002, 27 schools in six school districts in a mid-Atlantic state implemented the IC Team model as a part of a grant-funded project (Gravois, Knotek, & Babinski, 2002). Three of the districts were suburban, one was urban, and two were rural. District administrators determined school selection and participation. Within the 27 schools implementing IC Teams, schools varied in terms of years of implementation of the IC Team process.

The research questions related to general satisfaction with the IC Team process were answered by a large pool of teachers. Participants included 274 teachers, kindergarten through fifth grade, who referred a student to the IC Team during the 2 school years. As part of the IC Team process, each teacher was partnered with an IC Team member, engaged in consultation with that member to define the concern, implemented an intervention, and completed the *Satisfaction With Instructional Consultation Survey*.

Data used to answer the remaining research questions were derived from a subsample (n = 79) of the 274 teachers. These teachers completed the *Satisfaction With Instructional Consultation Survey* and were interviewed as part of the IC Team assessment of program integrity. These 79 teachers participated in level of implementation (LOI) interviews (Fudell, Gravois, & Rosenfield, 1996) to provide their reports of the consultation outcomes. The criteria for being selected to be interviewed for the LOI are set forth as part of the scale's administration guidelines. As stated in the guidelines, every team member and his or her corresponding teacher are interviewed for one case. If a team member has more than one case, then a random selection process is used to select the

case about which the interview will be conducted. As a result, only those teachers who were the consultees in the representative case for each case manager were included in the interviews. Both the *Satisfaction With Instructional Consultation Survey* and the LOI interview will be described in greater detail in the Instruments section of this article.

Training

A structured and comprehensive training sequence is provided to all participants involved in the IC Team model. In compliance with this requirement, all team members attended an introductory 3-day training to gain awareness, understanding, and initial skill development in the IC process of consultation (e.g., problem solving, collaborative communication, instructional assessment and interventions, and documentation of student progress). University personnel delivered the training and provided all technical assistance. Prior to training the team, a team facilitator, selected by the school, was provided with ongoing training in the skill areas. Gravois et al. (2002) present a complete description of the professional development process provided to participants in the current study.

Implementation

Although there were slight variations in team size, membership, and experience, all teams participating in the study had been evaluated and met criteria for adequate implementation of the IC Teams delivery system model as outlined by Rosenfield and Gravois (1996). School teams ranged in size from 8 to 14 members. Team membership included a representative sample of general educators, special educators, an administrator, and specialists (e.g., school psychologist, speech-language pathologist, reading specialist, pupil personnel worker), with a majority of the team members being general educators (one more than the number of specialists on the team). Team members were assigned as individual case managers to teachers who submitted a brief request for assistance form to the team. Teachers' concerns included reading, writing, math, and behavior, with the majority of concerns being about reading. Cases were assigned on the basis of team member availability, not content expertise, because all team members had equal training in the skills and content of IC. The assumption of IC is that the teacher will have the content expertise, and it is the consultant's role to support the teacher in reflection and problem solving. If additional content knowledge is needed, the teacher and case manager could attend a team meeting or seek a content specialist for support with their case. Case managers and teachers met regularly until the goal was met, the teacher felt comfortable continuing alone, or other circumstances required closure (e.g., student moved, school year ended).

Instruments

Satisfaction With Instructional Consultation Survey. The *Satisfaction With Instructional Consultation Survey*, divided into two parts, contains 20 items (see the appendix). Part I (Fudell, 1992) contains 8 items that address satisfaction with specific behaviors that are characteristic of IC and 3 general items. Test-retest reliability over a 2-week period was determined to be .95 during a previous study that utilized the same 11 items to assess teacher satisfaction (Fudell, 1992). The *Satisfaction With Instructional Consultation Survey* had been used previously in a study examining teacher satisfaction with early intervention teams.

Part II of the *Satisfaction With Instructional Consultation Survey* was developed to investigate teachers' experiences with and perceptions of the IC Teams process. A coding scheme was developed for Items 2 and 5 on Part II to investigate the number and type of skills and strategies that teachers reported learning through participation in the IC process. A mixed method was used to categorize and report the strategies used and their respective frequencies (Krippendorff, 1980). Participants received a score of 1 (*yes*) or 0 (*no*) for each of the possible codes to indicate the presence or absence of strategies or skills learned. The frequency of participants learning each strategy was calculated for each code to provide a quantitative analysis of the qualitative data.

Interrater reliability was investigated for 25% of the data set between two different raters. The first author and a school psychology graduate student were raters. Cohen's (1960) kappa, an index of interrater reliability when coding qualitative or categorical variables, was calculated and found to be .79; a relationship greater than .70 is considered satisfactory (Krippendorff, 1980).

IC LOI interview. The IC Team *Level of Implementation Scale–Revised* (Fudell et al., 1996) evaluates the level at which the IC collaborative process is being implemented with integrity. Teachers and consultants are interviewed separately to ensure that the critical dimensions of the IC process are being accurately implemented. The LOI interview has documented content validity and reliability, with interrater reliability established at .92 and test-retest reliability established at .88

Table 1
Number of Teachers Reporting Different Levels of Satisfaction

Rating	Frequency ($N = 274$)	Percentage
Very satisfied	161	58.8
Satisfied	94	34.3
Neutral	14	5.1
Dissatisfied	4	1.5
Very dissatisfied	1	0.4

(Fudell, 1992). A validation study of the LOI interview (McKenna, Rosenfield, & Gravois, 2005) compared responses to the interview questions with an analysis of the actual consultation sessions and documented the accuracy of the respondents to the interview.

Two items from the LOI interview were used in the current study (see Table 1). The first item asked teachers to rate their perception of the outcome of the IC case on a 5-point continuum from *much better than expected* to *much worse than expected*. The second item asked teachers to justify the basis for their response (e.g., "how do you know?") to determine if data from the case were used to determine progress toward goals. A score of 1 = *yes, data were used* or 0 = *no, data were not used* was recorded. The interviewer scores *yes* if the teacher specifically refers to data collected and the goals set during the case using the IC Student Documentation Form (SDF). The SDF provides a graph on which data are recorded and a section on which goal attainment, based on the data, is recorded as well.

Procedure

Satisfaction With Instructional Consultation Surveys and LOI interviews were administered to teachers who requested assistance from and worked with their respective IC Teams. Teachers were asked to complete a *Satisfaction With Instructional Consultation Survey* once their consultation case reached the intervention implementation stage. Surveys were distributed by the IC Teams facilitators, who were provided instructions on how to distribute surveys to any teacher who had worked with a case manager through the intervention implementation stage of the IC Teams process. Teachers were given surveys and asked to return them anonymously by placing them in the facilitator's school mailbox.

Each year, as a part of the annual program evaluation of the IC Teams project schools, all case managers and referring teachers who had a case that had reached the intervention implementation stage of the process were asked to participate in a 30-minute LOI interview with an IC Team lab graduate student who was unknown to

the pair. A substitute teacher was provided to schools to offer classroom coverage for teachers to meet with the interviewer. During the second year, teachers who were interviewed by university graduate students were given the *Satisfaction With Instructional Consultation Survey* after completing the interview rather than receiving the surveys from their IC Team facilitator. Teachers were assured that their data would remain anonymous and would not be reported back directly to the school. Teachers who were not sampled for the interview received a copy of the survey from the facilitator and were asked to return the form anonymously to the facilitator's school mailbox. Response rate was not calculated during the first year of data collection; however, an attempt was made to determine the response rate in Year 2. The IC Team facilitator of each school was asked to keep track of the number he or she distributed and collected, resulting in a response rate of 88% for 14 of the 27 schools. Thirteen facilitators did not report the data necessary to calculate the response rate.

Results

Teachers' Satisfaction With Instructional Consultation

A descriptive analysis was conducted on the mean of the sum of the first eight items to identify teachers' overall level of satisfaction with IC. Results from an independent samples *t* test indicated that the satisfaction means did not differ significantly ($p = .26$) between the 2 years; thus, the data were combined to increase the overall sample size.

Table 1 provides a summary of the teachers' satisfaction combined for both project years. On average, teachers' satisfaction fell within the *satisfied* to *very satisfied* range ($M = 4.50$, $SD = 0.70$) on a 5-point Likert scale (5 = highest possible rating). A large majority of the teachers ($n = 255$, 93.5%) reported being satisfied or very satisfied, while only 5 teachers (1.9%) reported being dissatisfied or very dissatisfied and 14 (5.1%) were neutral.

A qualitative analysis of the suggestions and concerns reported by the five dissatisfied teachers was conducted to further explore what might have affected satisfaction for those outlying cases. The five dissatisfied participants indicated that they felt the process "took up too much time." Additional concerns listed were lack of knowledge of the case manager and lack of consistent meeting times. One participant indicated that the process was not voluntary and that the responder had received pressure from the administration to participate.

Table 2
Teachers' Perceptions of Instructional Consultation Outcomes

Rating	Frequency ($n = 79$)	Percentage
Much less than expected	1	1.3
Somewhat less than expected	10	12.7
What was expected	33	41.8
Somewhat more than expected	23	29.1
Much more than expected	12	15.2

Teachers' Reports of Consultation Outcomes

Table 2 provides a summary of consultation outcomes as reported by teachers. On average, teachers perceived the outcome of IC to be within the *what was expected* to *somewhat more than expected* range ($M = 3.44$, $SD = 0.94$). Most of the teachers ($n = 68$, 86.1%) reported that the case met or exceeded their expectations, while 11 teachers (14%) reported cases that fell below expectations. The majority of the 79 teachers ($n = 55$, 69.6%) in the subsample for whom these scores were available indicated that they used data from the case to make the decision as to whether their expectations were met, were exceeded, or were not met.

Relationship Between Teacher Satisfaction and Perceived Case Outcomes

The relationship between teachers' satisfaction and teachers' ratings of their perception of the outcome (Table 3) of the consultation case was determined based on a subset of 79 teachers for whom both data sets were available. A Pearson correlation was conducted to determine if there was a significant relationship between teachers' satisfaction ratings and teachers' ratings of their perceived outcomes of the IC process for the student about whose concerns they consulted. A correlation of .37 was found, significant at $p < .01$.

Teachers' Confidence, Skill, and Strategy Development

Teachers' confidence. Teachers were asked to report how confident they felt about addressing similar problems, on their own, in the future. On average, on the 3-point scale, teachers' reported confidence fell within the *somewhat confident* to *very confident* range ($M = 2.52$, $SD = 0.58$). Table 4 presents the number of teachers indicating each level of confidence as rated on Item 9.

Table 3
Correlations Between Satisfaction and Indicated and Anticipated Strategy Use

Rating	Any Indicated Use ($n = 268$)	Any Anticipated Use ($n = 268$)	Perceived Outcomes ($n = 79$)
Satisfaction	.11	.24**	.37**
Data-based decision making	.33	.29*	.05

Note: Six teachers did not complete this portion of the survey.
*$p < .05$. **$p < .01$.

Table 4
Frequency of Teachers' Confidence Responses

Rating	Frequency ($n = 272$[a])	Percentage
Very confident	152	55.9
Somewhat confident	109	40.1
Not at all confident	11	4

a. Two teachers did not complete this portion of the survey.

Teachers' skill development or strategies learned. Table 5 provides the results on the impact of participating in the IC process on teacher learning. Of the 268 respondents to this portion of the survey, 81% reported learning one or more problem-solving skills or strategies; only 19% reported learning nothing or declined to respond to Items 2 and 5 ($n = 52$, 19.4%). Of the 52 participants who did not indicate learning any new skill or strategy, 19 marked "none," "NA," or some similar type of indicator, while 33 participants left both Items 2 and 5 blank. It was unclear if those participants in fact did not feel that they had learned anything or if they chose not to respond to that particular item.

Teachers' problem-solving skills and strategies learned. Table 6 provides the results of the effect on teachers' problem-solving knowledge and skills for 216 participants who responded to this portion of the survey. Problem identification ($n = 65$, 30.1%) and intervention design ($n = 186$, 86.1%) were the most frequently reported skills or knowledge learned as a result of IC. Among the problem identification skills, teachers reported developing skills in assessment ($n = 45$, 20.8%) and prioritizing areas to focus on ($n = 30$, 13.9%). A separate analysis of the academic intervention strategies taught during IC Teams training was conducted to provide more information about which specific

Table 5
Number of Strategies or Skills Learned

Number of Strategies or Skills Learned	Frequency ($n = 268$[a])	Percentage
0	52	19.4
1	95	35.4
2	65	24.3
3	32	11.9
4	19	7.1
5	3	1.1
6	2	0.7
1 or more	216	80.6

a. Six teachers did not complete this portion of the survey.

Table 6
Number of Teachers Reporting Learning Each Problem-Solving Component

Problem-Solving Component	Frequency ($n = 216$[a])	Percentage
Problem identification: general	65	30.1
Assessment	45	20.8
Prioritizing	30	13.9
Intervention design	186	86.1
Academic strategies	154	71.3
Behavior strategies	53	24.5
Intervention implementation	28	13.0
Evaluation and data collection	28	13.0
Reflection	44	20.4

Note: Frequencies do not equal the total number of participants because teachers were able to report learning more than one strategy or skill. The sum of the percentages does not equal 100%. Percentages represent the percentage of teachers in the sample of 216 who reported learning that particular skill or strategy.
a. Data were reported for the 216 teachers who completed the open-ended items regarding strategy or skill development.

Table 7
Frequency and Percentage of Strategy Use With Other Students

Strategy	Indicated Use ($n = 268$)		Anticipated Use ($n = 268$)	
	Frequency	Percentage	Frequency	Percentage
With another student	126	47.0	162	60.4
With a group of students	119	44.4	140	52.2
With a whole class	59	22.0	80	29.9

Note: Six teachers did not complete this portion of the survey.

strategies were learned. Table 9 presents the academic strategies learned. The intervention strategies teachers most reported learning were academic strategies ($n = 154$, 71.3%), as opposed to behavioral strategies ($n = 53$, 24.5%).

Teacher Strategy Application

Items 3 and 4 on Part II of the survey asked teachers if they have used or anticipate using strategies with an individual student, a group of students, or a whole class. These two items were analyzed with a frequency count using cross-tabulations and are displayed in Table 7. More than 40% reported using the strategies learned with another student or group of students, while more than half reported planning to use the strategy with other students.

Relationship Between Satisfaction and Use of Strategies With Other Students

A Pearson correlation analysis was conducted to determine if there was a significant relationship between individual satisfaction ratings and use or anticipated use of strategies with students, other than the one that was the focus of the consultation sessions. The relationship between satisfaction and teachers' anticipated use was significant ($p < .01$). Teachers' anticipated future strategy use was also significantly related ($p < .05$) to teachers' use of actual data to determine if the case met their expectations. The relationship between teachers' satisfaction and teachers' use with other students at the time of the survey, however, was not significant ($p = .07$). Table 3 indicates the results of each analysis.

Discussion

The current study investigated teachers' satisfaction with IC, the perceived outcomes of the consultation for students, and the skills that teachers reported acquiring as a result of having the opportunity to consult. In addition, the relationship of satisfaction with outcomes to perceived acquired skills was investigated.

Teacher Satisfaction

The findings from the current study are consistent with previous consultation research and confirm that teachers typically do report high satisfaction with IC. Overall satisfaction with or acceptability of IC services was found to be uniformly high, and teachers appear

to be satisfied not only with the process of IC but also with the outcomes of the process. A majority of the teachers in the surveys that we analyzed ($n = 68$, 86.1%) perceived the outcome of IC to meet or exceed their expectations. The relationship between teacher satisfaction and teachers' perceptions of the outcomes of the IC process was significant ($p < .01$), suggesting that teachers who are highly satisfied with the process are also likely to perceive that the outcomes for students meet or exceed their expectations.

Previous research has suggested caution in the interpretation of high teacher satisfaction (Lebow, 1982; McNaughton, 1994) because teacher satisfaction results may reflect social desirability and not necessarily true satisfaction with the process. Although this may also be the case with these findings, considering the high test-retest reliability of the *Satisfaction With Instructional Consultation Survey*, the current results may offer another possible explanation in the case of the IC process. The relationship between satisfaction and goal attainment scaling suggests that the uniformly high satisfaction ratings may indicate satisfaction with a process that is perceived to "work," rather than mere social desirability. This is further supported by the fact that so many of the teachers reported using data to rate their perceptions of the outcomes.

Satisfaction with IC was also positively related to teachers' willingness to generalize what they had learned to other students in the classroom. In addition, there was a significant correlation between teachers' satisfaction and their intention to use strategies in future years. One highly satisfied teacher commented that "the process made me think positively about the child and the whole class, to work with what they can do and to build upon those skills." Another teacher wrote, "By using the IC process, I've been able to pinpoint problems and develop strategies that aid in better classroom management." Many teachers reported overall improvements in "differentiated instruction" or becoming more "aware" of how to assess students to plan instruction. This is illustrated by comments such as "even though I focused on one student, using IC made me more reflective while working with other students."

Although the relationship between teachers' satisfaction and their use of new strategies was not significant when generalizing strategies for nontargeted students in the current year, teachers were very specific about how they took what they learned and applied it to similar needs in different students. For example, one teacher shared, "we developed a behavior management plan which I also used with a small group of students." Another teacher reported, "I have used the word search

strategy with all the children in my class (many times) this year."

Teacher Skill Development

Teachers' satisfaction with consultation and increased student performance represents an important outcome of consultation services. However, the ability to increase teachers' capacity to handle and address future concerns is equally important in the IC model. This concept is embedded in consultee-centered consultation (Knotek et al., 2008; Knotek et al., 2003), which recognizes the impact that consultation services can have on teachers involved in the process. Qualitative data collected from open-ended survey responses indicate that teachers (a) became more confident in their ability to handle similar problems in the future, (b) developed strategies and skills as a result of participating in IC, and (c) increased their use or anticipated use of those strategies or skills with other students.

Increased instructional strategies for teachers. A primary focus of IC is on assisting teachers in analyzing their instructional delivery; this goal appeared to be achieved in teachers' reports of strategies learned as a result of consultation. When asked what they learned from the IC Team process, teachers most frequently identified an intervention or strategy (86%). Analysis of the types of strategies learned revealed that teachers reported, in a nearly 2:1 ratio, learning more academic strategies ($n = 154$, 71%) than behavioral strategies ($n = 53$, 26%).

A majority of the strategies that teachers' reported were in the area of reading. As with previous research that found the majority of referrals to the IC Teams were in reading (Hillegass, 2005), the majority of referrals in this study were also for reading concerns. Thus, the large percentage of reading strategies learned is not surprising. It was also found that a large percentage of the strategies reported by teachers (e.g., pocket words, drill sandwich, word search, questioning techniques, echo reading, or trio reading) were those directly introduced as part of the IC Team training process. Such transfer of skills indicates that the consultants gave away what they learned as part of the consultation training and supported the consultee-centered focus of the IC process. Many of the teams in the study had provided in-services during school faculty meetings to share strategies that were learned during their team trainings. Although teachers often are introduced to and know many effective strategies, they may have difficulty understanding how best to apply those strategies in their own classrooms or with certain students. A consultation process may allow for

more individualized discussion or modeling of strategies previously learned, and as such teachers may feel as if they learned something new that they could apply in their classrooms.

Increased problem-solving skills for teachers. However, the IC process should not be perceived only as a mechanism to transfer strategies. Improving teachers' capacity as part of the IC process also means improving their ability to address problems more effectively either on their own or within existing school structures. Several data sources indicate that teachers felt this objective was met. For example, teachers reported feeling more confident about handling similar concerns in the future. More specifically, analysis of teachers' responses to open-ended questions suggested that several teachers learned and began to apply skills such as conducting their own frequent instructional assessments to guide instructional decisions. Teachers reported becoming better at critical aspects of identifying problems, especially in the areas of assessing student performance and prioritizing concerns. One teacher reported, "the methods that I used to determine this student's specific areas of concern have helped me in assessing other students' problems."

When faced with a difficult student, teachers often have multiple concerns, and prioritizing can be a difficult prospect without additional input. One teacher learned that "choosing specific areas rather than broad ones proved effective" in supporting a struggling student. In addition to learning to prioritize one specific area of focus, two teachers reported that the process also helped them to learn how to "persevere and follow through with the intervention." These specific skills are typically associated with the problem-solving process and suggest that in addition to learning a specific strategy, teachers were also learning how to approach similar problems in the future. Given the emphasis on problem solving in Response to Intervention (Batsche et al., 2005), this result for classroom teachers suggests that consultee-centered problem-solving teams that focus on building teacher skills, such as IC Teams, have the potential to make an important contribution in that process.

Data-based decision making. Data-based decision making is considered to be a major component of the problem-solving process during IC. The IC process includes specific baseline and weekly progress-monitoring data collection as part of the teacher and consultant problem-solving process. Teachers and case managers work together to collect, chart, and analyze this information to inform them throughout each stage of problem solving. More than two thirds of the 79 teachers interviewed about their cases indicated that they used specific data to support their perceptions of the case outcomes. Data-based decision making was scored by interviewers when teachers specifically referred to the weekly graphed data and the specific goals that were set with their case manager during the case to describe how the case met or did not meet their expectations. A description of the actual student data collected and outcomes within each case is beyond the scope of this article, but this finding is consistent with research that has found data collection and data-based decision making to be hallmarks of good prereferral interventions (Flugum & Reschly, 1994; Levinsohn, 2000; Telzrow, McNamara, & Hollinger, 2000).

Further analyses revealed a positive relationship between data-based decision making and anticipated use of skills learned. The significant correlation of these two variables suggests that data-based decision making and teacher-perceived skill development are closely related. These results support the preventive claims of the consultation literature, including the earlier Costas et al. (2001) study, which found that all of the participants interviewed reported changes as a result of working through the collaborative and data-driven problem-solving IC process.

Additional Themes

Two related themes that emerged were evaluation or data collection and reflection. Teachers reported learning new ways to monitor students' progress, collect ongoing data, and display it in a graph format. Furthermore, 20% of the teachers reported that they became more reflective as a result of working through IC. Teachers appeared to become more data based in their decision making as they learned new strategies to collect and graph data, and there is an indication that thinking switched from looking at student problems as deficits within the student to viewing them in a context of the students' skills, the instruction, and the task demands.

Limitations

The major limitation of the current study is related to the design, that is, a posttest only with no control group. Although the results are promising, they can be considered only exploratory and descriptive because the study was not a true experiment and thus did not control for factors that might be related to the teachers' perceived changes. Furthermore, the monomethod design, including the sole use of teacher self-report measures, poses a threat to internal validity (Shadish, Cook, & Campbell, 2002). Due to this design flaw, it is unclear

whether the reported changes were indicative of actual teacher skill changes that led directly to changes in student behaviors or achievement because observations, interviews, and student data were not triangulated to validate these findings. Teachers may have under- or overreported the specific skills or strategies they developed as a result of working with an IC Team member or merely tried to please researchers or protect their colleagues by reporting high levels of satisfaction. Although the amount of and consistency across qualitative information that was provided by teachers about their experiences were specific and detailed, causality cannot be inferred from these descriptive findings. Additionally, there were differences in how surveys were administered in Year 1 versus Year 2. Such differences could have affected teachers' responses. Finally, teachers in the current study were those who actually participated fully in the consultation process; teachers who did not work with a consultant through to the implementation stage of consultation were not included in the sample. However, the purpose of this research was to identify and study the experiences of teachers who actually engaged in IC.

Archival data from this study were collected originally during the annual program evaluation that is part of the IC Teams process. Due to the fact that data were collected from archived sources, unfortunately, this study did not allow for student or case manager information to be linked with the teacher reports of satisfaction and skill development. As such, student or case manager factors (e.g., student case outcomes) were not part of the analysis.

Future Research

Satisfaction and Acceptability Research

Multiple methods of assessing satisfaction should be conducted because the current *Satisfaction With Instructional Consultation Survey* may not be providing valid results. For example, behavioral indicators of satisfaction with IC could be investigated (e.g., number of teachers who refer in a school, number of teachers who continue throughout the process, teachers' timeliness and presence at scheduled IC Team meetings) in addition to survey methodology. Qualitative interviews of satisfaction and dissatisfaction could also be conducted to provide more insight.

Further study of satisfaction with IC and teacher perception of the outcomes should also take into account expectations of consultation and student performance prior to beginning IC. Participants may readjust their expectations after having participated in a program. This shift of expectations may affect satisfaction ratings or

ratings or perceptions of the outcomes if they are not taken into account.

Preventive Outcome Research

As schools continue to implement the IC Teams model, research should continue to focus on the preventive outcomes in addition to the remedial student outcomes. Multilevel data analysis procedures should be used to explore outcomes at multiple levels (e.g., student, teacher, and school data) and their relationship with one another in assessing the efficacy of consultation approaches. More advanced methods of studying the preventive outcomes of IC—such as direct observations of instruction and assessment, in-depth qualitative interviews, pre- and posttests on knowledge of instructional principles, and analysis of consultation tapes for indicators of generalization and prompts for generalization—need to be in place. The latter would allow for investigation of whether teachers do, in fact, talk about spreading the intervention to their other students and if the consultant explicitly asks the teacher whether there are other students who could benefit from the intervention. The findings from the latter investigation could help to better inform training of consultants.

Conclusion

This study provides a description of teachers' perceptions of and experiences with IC. The majority of teachers report being satisfied with IC, perceive it to be an effective process, and feel more confident about handling similar problems in the future. Additionally, this study supports the assumption that teachers feel they have enhanced their problem-solving skills and learned specific instructional and behavioral strategies as a result of IC. Finally, this study provides initial evidence of the possible preventive features of IC, in that teachers indicate anticipated generalization of skills to other students.

The process by which teachers develop and transfer new skills is a topic of great importance in school improvement and should be considered as critical to problem-solving structures related to Response to Intervention. Consultee-centered consultation, as implemented through the IC Team model, is designed to enhance teacher performance, and this study provides a snapshot of how that outcome has been achieved. Future research should provide evidence of the effects of IC Teams on teacher development by using more rigorous experimental designs and multiple sources of information to test the hypotheses generated from this study.

Appendix
Satisfaction With Instructional Consultation Survey

PART 1: As a part of our evaluation of the Instructional Consultation Team model, we are interested in your experiences with and perceptions of your work with an IC Team Case Manager. Thank you for your feedback!

Please circle the number that most accurately reflects your feelings of satisfaction about working with the consultant.
    1 = Very dissatisfied   **2 = Dissatisfied**   **3 = Neutral**   **4 = Satisfied**   **5 = Very satisfied**

	VD	D	N	S	VS
1. Ease of access	1	2	3	4	5
2. Timeliness of response	1	2	3	4	5
3. Level of comfort in working with the IC Case Manager	1	2	3	4	5
4. IC Case Manager's understanding of children's behavior	1	2	3	4	5
5. IC Case Manager's support in helping to identify the problem	1	2	3	4	5
6. IC Case Manager's support in developing useful strategies	1	2	3	4	5
7. IC Case Manager's support when strategies were implemented	1	2	3	4	5
8. Overall effectiveness of the IC process in supporting you	1	2	3	4	5

9. How confident are you in your ability to deal with similar problems in the future?
      Not at all confident   Somewhat confident   Very confident
10. How helpful has it been to work with the IC Team Case Manager to develop classroom interventions?
      Not at all helpful   Somewhat helpful   Very helpful
11. Based on your experiences, how likely are you to use the IC Team in the future for similar classroom concerns?
      Not at all likely   Somewhat likely   Very likely

PART 2: As a part of our evaluation of the Instructional Consultation Team model, we are interested in your experiences with and perceptions of IC. Thank you for taking the additional time to fill out this portion of the survey!

1. Did you access the IC Team for supporting: (check all that apply)
    _____ An individual student   _____ A group of students   _____ A whole class
2. What **specific strategy or strategies** did you learn and/or develop with your IC Team Case Manager (i.e., Drill Sandwich, Word Search, etc.)?

3. Have you used this or other strategies learned in your work with the IC Team with (check all that apply):
    _____Another student   ___Groups of students   _____Entire class
4. Do you anticipate using this strategy in the future with (check all that apply):
    _____Another student   _____Groups of students   _____Entire class   _____Don't plan on using again
5. In what other ways have you enhanced your instruction or classroom management through the IC process?
6. What do you **most appreciate** about having the IC Team in your school and/or being able to work with an IC Team Case Manager?

7. What **concerns** do you have about the IC Team or the IC process?

8. Would you **recommend** that the IC Team be continued in your school? Please check:
    _____Yes   _____No   If no, please explain below:
9. What **suggestions or recommendations** do you have for the IC Team?

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