Shared Competencies: A Study of General Education Teachers' Use of Instructional Strategies in Support of Students with Learning Disabilities

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Abstract

This study investigated the perceptions of general education teachers regarding their use of reading comprehension instructional strategies in their work with students with learning disabilities (LD) in general education settings. Teacher perceptions were compared to actual practices described in the Council for Exceptional Children (CEC) Performance Standards Three and Four. It was hypothesized that general education teachers share competencies with special educators when addressing the needs of students with LD. The primary results of this study showed that general education teachers perceived that they purposefully selected and used interventions and teaching behaviors to address the reading comprehension needs of students with LD and that they shared competencies with those identified for special educators, as delineated in CEC Performance Standards Three and Four.

Keywords: Learning Disabilities, Instructional Strategies, Inclusive Practices, Teacher Reflection, Shared Competencies, Reading Comprehension

1. Introduction

Students with learning disabilities (LD) comprise almost two-thirds of those receiving special education services (Levine & Wagner, 2003). The majority of these students spend at least part of their day in a general education classroom (Newman, Marder, & Wagner, 2003). General education teachers may not have received formal training in the instructional skills necessary to teach these students (Minke, Bear, Deiner, & Griffin, 1996). An underlying assumption of the inclusion model is that teachers are able to perceive and purposefully select the use of specialized techniques to accommodate students with LD (Winzer & Mazurek, 2000). Shulman (1988) has observed that while tacit knowledge may be characteristic of many things that teachers do, it is important that the tacit become explicit (Shulman, as cited in Manning, 2002).

For general education teachers teaching students with LD, the ability to self-reflect on their practices is particularly important due to the need to make accommodations and instructional changes to enable these students to be successful in the general education classroom. (Boudah, Deshler, Shumaker, Lenz and Cook,1997).

A primary academic area of concern in considering general education teachers' ability to reflect upon and perceive their practices for students with LD pertains to reading instruction. Although students with LD have an array of academic deficits, reading disabilities (RD) are the most prevalent among this population of students(Bender, 2002).Wanzek, Vaughn, Ae-Hwa, and Cavanaugh (2006) estimate the prevalence of RD in students with LD, with approximately 80 percent of these students having significant deficits in this area.

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The importance of conducting research studies of this nature in general education classroom environments has been emphasized by Gersten and Vaughn (1997). "Instructional interventions that are effective only in tightly controlled settings and are implemented with resources or class sizes that do not represent the realities of the classroom setting may provide important guidelines for the development of interventions, but they hold little promise for directly improving classroom practice (p. 9).

2. Background

Over the last few decades, changes have occurred regarding the delivery of special education services for students with LD. These changes have focused on creating a unified educational system and a shared responsibility for students between general and special educators (see Winzer & Mazurek, 2000 for review). The Individuals with Disabilities Education Act (IDEA) mandates that students with disabilities receive education in the least restrictive environment (P.L. 105-547). Since the late 1980s, the number of students with disabilities who are educated in general education classrooms has increased consistently and substantially (McLeskey, Henry, & Hodges, 1998).

Increased levels of achievement for students with LD in general education settings, as compared to students with LD who receive instruction in self-contained or resource center classrooms are reported (Rogers & Thiery, 2003). Other benefits of inclusion are the availability of additional supports for the general education students, the opportunity for them to develop increased acceptance of students with LD, and the facilitation of more appropriate social behavior for students with LD within the general education classroom (Kochhar, West, & Taymans, 2000).

3. Rationale and Overview of Study

This study examined general education teachers' perceived use of instructional strategies, which include their use of interventions and teaching behaviors for students with LD in the area of reading comprehension. Observations of reading comprehension lessons and teachers' reflections on their practices for students with LD were compared to explore possible relationships with CEC performance standards. Schmidt et al. (2002) have observed that there should be a commitment to making inclusion classrooms different from general education classrooms that students with disabilities had previously unsuccessfully attended. In order to accomplish this outcome, it is important to examine the instructional practices and the contextual factors that enable learning in these new settings. McLeskey and Waldron (2002) emphasize the importance of addressing the needs of students and the expertise of educators within each school when examining inclusive practices on behalf of students with LD.

Teachers' perceived use of interventions and teaching behaviors were examined in grades two, three and four with regard to specific CEC performance-based standards with a primary focus on the area of reading comprehension strategy instruction. Information regarding interventions and teaching behaviors on behalf of students with LD was gathered using both the emic perspective of the participant teachers and the etic perspective of the observer (Gall & Gall, 2003).Similarities and differences between the reported perceptions of the participants' use of instructional strategies, namely interventions and teaching behaviors, and observer reports were explored in relation to CEC Performance Standards Three and Four.

Two research questions were explored:

1) What are the perceptions of a second, third, and fourth grade general education teacher with regard to the use of reading comprehension interventions and teaching behaviors for students with LD in general education classrooms?
2) What are the similarities and differences between second, third, and fourth grade general education teachers' self-perceptions and those perceptions of an outside observer with regard to the use of reading comprehension interventions and teaching behaviors for students with LD in general education classrooms?

4. Literature Review

More than 2.8 million students in the United States have LD, and over 80% of these students have reading deficiencies (U.S. Department of Education, 2006). Students with LD have more difficulty comprehending what they read than do students without disabilities, even when controlling for the level of decoding (Englert & Thomas, 1987; Taylor & Williams, 1983).

Deficits in memory skills. Students with LD have difficulty organizing, understanding, storing, and remembering information presented during large group instruction (Tralli et al., 1996). Furthermore, students with LD do not seem to employ effective strategies related to successful learning and they do not possess sufficient subject matter knowledge to learn readily by association (Ellis & Lenz, 1990). Deficits in reading fluency are also common among students with LD and this contributes to problems with comprehension (Martin & Martin, 2001; Gersten et al., 2001). Butler (1988) identifies multiple factors including deficits in vocabulary knowledge, reading fluency, and activation of background knowledge as contributors to the reading comprehension difficulties of students with LD.

Deficits in strategy use. In a study of strategy use, Gersten et al. (2001) examined the effects of teaching reading comprehension strategies to students with LD. This synthesis concludes that, in addition to lacking decoding and fluency skills, a majority of students with LD have poor reading comprehension skills, which include the skills associated with making inferences. Students with LD may lack skills in the area of inferential thinking as shown through continuing poor performance on the NAEP and other standardized tests that increasingly rely on questions related to higher order thinking skills (Wagner, 2003). Gersten et al. (2001) proposes that students with LD have the cognitive skills to make sense of the information presented but do so ineffectively. These researchers additionally conclude that students with LD may display inefficient comprehension strategies and do not use the structure of text to extract meaning (Wagner, 2003; Gersten et al., 2001).

Butler (1988) notes that deficits exist for students with LD with regard to their ability to analyze text structure. Students with LD have been found to display a tendency to approach text without any particular plan of action and retrieve information in a random manner (Gersten et al., 2001).

Affective influences. Students with LD are often characterized as passive learners who may lack the skills necessary to actively engage in processing and organizing oral and written information (Lerner, 1993). Children who have a rich knowledge base improve with instruction; whereas those poor in vocabulary and reading ability fall farther behind (Walberg & Tsai, 1983). Discrepancies intensify and extend to the ability of students with LD to succeed on more complex tasks such as content area reading comprehension (Gardill, 1997).Levels of intrinsic motivation are frequently lower in students with LD as they have often faced repeated failure and have had considerable difficulty in instructional situations (Ellis, Deschler, Lenz, Schumaker, & Clark, 1991). Due to attention weaknesses, some students with LD may not attend or may be distracted during academic activities and this can compromise their ability to successfully complete reading comprehension tasks (Reid, 1996).

5. Instructional Interventions for Students with LD in Reading Comprehension

With an increasing number of students with LD being served in general education classrooms, there is a need for appropriate and effective strategies to present information and foster comprehension (Gardill, 1997). Studies show that when students with LD are taught reading comprehension strategies, the comprehension level increases, and supports further academic success (Gersten et al., 2001; Swanson et al., 1999). A synthesis of the literature involving the instruction of students with LD in reading comprehension strategies indicates that direct instruction in reading comprehension strategy use is highly successful for these students, and that these skills should be directly taught (Mastropieri, Scruggs, Bakken, & Whedon, 1996).

6. Teacher Reflection

The National Board for Professional Teaching Standards (NBPTS) and the Interstate New Teacher Assessment and Support Consortium (INTASC) call for teachers to examine and reflect upon their practice (Manning, 2002). One of the NBPTS's five major propositions states: "Teachers think systematically about their practice and learn from experience" (Darling-Hammond as cited in Manning, 2002, p. 1). Principle 9 of the INTASC standards states: "The teacher is a reflective practitioner who continually evaluates the effects of his/her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally" (Manning, 2002). The application of this reflective process in analyzing instructional strategies used for students with LD in general education settings is particularly important in order to assess the practices implemented, their effect on student performance, and determining subsequent modifications or interventions which may be necessary to address individual needs.

7. Data Collection Methods

The study was designed as a qualitative, naturalistic inquiry to examine complex interactions in a real-life context (Isaac and Michael 1997, p. 219). Three teachers were observed and interviewed in their general education classrooms. They were purposefully selected based on documentation indicating that they were fully qualified, highly rated teachers who participated actively in professional development activities. All the participants taught in the same elementary school and had 5 children with LD included in their classrooms (representing from 23% to 28% of each classroom).

Teachers participated in semi-structured interviews before and after the observations were conducted. Each teacher was observed six times. The pre-observation interviews contained probing questions designed to elicit the teacher's description of the methods she planned to use, possible modifications she might make during instruction, and her strategy for judging the effectiveness of her methods. The post-observation interview elicited reflections on the observed lesson. The teachers reported on the success of instruction and the actual instructional decisions they made. The interviews provided the researcher with the teachers' "views of their worlds, their work, and the events they have experienced or observed" (Rubin & Rubin, 1995, p. 35).

Six reading lessons were randomly selected for observation. The observer used an observation rubric to identify the presence of effective teaching practices identified in the CEC teaching standards.. The researcher compared the teachers' perceptions of their instructional practices to the actual occurrence of the practices during the observations. Two were videotaped for subsequent independent verification

8. Results

Through analysis of observation and interview data, the researcher was able to address the primary questions of the study:

8.1 *Comparative summary of teachers' perceptions of intervention use.* The second, third, and fourth grade teachers reported utilizing multiple interventions within each of the six observed lessons. The three teachers perceived their use of interventions from each of the four categories in most of the lessons presented with the most commonly selected strategies being part of the memory category. Table 1 provides a summary of teachers' perceptions of their intervention use.

All three teachers expressed a preference for using the memory strategies of activation of prior knowledge and vocabulary instruction, as the teachers perceived these interventions in five or more of their observed lessons. Differences in the perceived use of interventions were evident among the grade levels, as Mrs. C's second grade class reportedly made greater use of audiotapes, while Mrs. P indicated that her fourth grade group received frequent exposure (83% or greater) to paraphrasing, the analysis and evaluation of story content, and the utilization of study techniques.

8.2 *Comparative summary of teachers' perceptions of their use of teaching* behaviors. All three teachers reported using several teaching behaviors in the majority of the lessons observed. In 83% or more of the lessons, they reported using modeling, maintaining physical proximity, and offering verbal encouragement. Table 2 compares the perceptions of the second, third and fourth grade teachers regarding their use of teaching behaviors.

The teachers appeared to share a common view as to why they thought these teaching behaviors were necessary. They reported to be endeavoring to meet the needs of individual children and to derive the greatest benefit from the reading comprehension curriculum. The teachers also reported the repetitive use of particular teaching behaviors within individual lessons, or the combination of teaching behaviors to support the implementation of particular interventions on behalf of students with LD.

8.3 *Comparative summary of teachers' self and observer's perceptions of their intervention use.* Table 3 presents summary information on the percentage of agreement between the teachers' reported perceptions of their intervention use and observations of their use of interventions.

Percentages of agreement range from 64% (Text-Based Interventions) to 76% (Affective Interventions). The second and third grade teachers presented similar profiles in that the highest levels of agreement were evident in the Affective and Memory categories, while differences were most apparent in the Text-Based category.

The fourth grade teacher perceived herself or was observed to use the largest number of interventions (81), followed by the second grade teacher (64), and the third grade teacher (58). The highest percentage of overall agreement between teachers' self-perceptions and observer perceptions was in Mrs. V's third grade (74%), then Mrs. P's fourth grade (73%), and Mrs. C's second grade (61%).

8.4 *Comparative summary of teachers' self and observer's perceptions of their teaching behavior use.* Table 4 presents summary information on the percentage of agreement between the teachers' reported perceptions of their teaching behaviors and observations of their teaching behaviors. Teachers' reports and independent observations of teaching behaviors across second, third, and fourth grade teachers agreed 65% of the time. The highest levels of agreement were for Mrs. V (73%) and Mrs. P (71%); while agreement between teacher reports and outside observations of Mrs. C's teaching behaviors occurred 51% of the time. Factors which appeared to have influenced these differences in perception included the context in which lessons occurred, the teacher or observer's interpretation of the definition of the teaching behavior, and/or the lack of explicitness in describing behaviors which were natural or intuitive.

9. Conclusions

The results of this study suggest findings in three areas. First, general education teachers perceived that they purposefully selected and used interventions and teaching behaviors to address the reading comprehension needs of students with LD. Second, there were differences between the self-perceptions of teachers regarding their use of interventions and teaching behaviors and those recorded by an outside observer. Third, the three general education teachers participating in this study, in addressing the needs of their students with LD, shared competencies with those identified for special educators, as delineated in CEC Performance Standards Three and Four.

9.1 *Finding 1. General education teachers perceived that they selected and used interventions and teaching behaviors to address the reading comprehension needs of students with LD.*

Researchers have described the impact that deficits in the areas of memory, strategy use, motivation, and self-concept can have on the reading comprehension development of students with LD. The three teachers in this study reported vigilance in monitoring the performance of students with LD and stressed the importance of selecting interventions and teaching behaviors to address the identified reading comprehension needs.

The reported perceptions of the three teachers in selecting and utilizing interventions and teaching behaviors were consistent with previous research findings. Specifically, the three teachers' approaches to instruction supported the findings of Gersten and Vaughn (1997) in that their instructional routines, including interventions and teaching behaviors, were effective for students without LD as well as for students with LD. Mrs. C reported in her initial interview that, "when I have LD children in my class, I modify instruction for everyone. I find the strategies that work for all children and do it for everyone." This statement reflected the approach taken by each of the three teachers and was consistent with the findings of Lambert, Dodd, Christensen, and Fishbaugh (1996). These researchers concluded that general education teachers tend to support those accommodations that possess an ease of fit with traditional classroom practice.

Bryant (1999) extended this point by concluding that the general education teacher in an inclusive classroom must determine the accommodations and modifications that are most feasible to implement, bring about the desired results, and are perceived as fair to both students with LD and without disabilities. The three teachers in this study perceived that the interventions and teaching behaviors selected for use in each of their six observed lessons were feasible to implement, effective, and fair.

9.2. *Finding 2. There were differences between the self-perceptions of teachers regarding their use of interventions and teaching behaviors and those recorded by an outside observer.*

Several factors accounted for differences between the self-perceptions of teachers regarding their use of interventions and teaching behaviors, and those recorded by an outside observer. These factors included a lack of explicitness by the teachers in identifying interventions or teaching behaviors, contextual influences, and subjectivity in the interpretation of definitions. Differences in perception resulted, in part, from a lack of explicitness by the teachers in identifying interventions and teaching behaviors that were regarded as a natural or intuitive response to student needs.

Over time, the teachers did become increasingly explicit in describing modifications on behalf of students with LD in the area of reading comprehension. This process of becoming more detailed and descriptive appears to support the view of Shulman (1988) in emphasizing the importance of being able to explicitly describe how and why particular actions occur within a classroom.

The overall context in which lessons were taught affected teachers' and observer's perceptions. For example, Mrs. C reported that her perceptions were occasionally influenced by activities that had occurred during previous lessons. In one reflection, she reported using rereading and story mapping based on work that the students had performed in prior lessons. Additionally, within one of her lessons, Mrs. P classified VIPs as being part of the creation of study guides, as post-it notes were going to be combined with others that had been previously developed.   These differences highlighted the importance of viewing interventions within an overall context, which included sequentially planned lessons. In these cases, the teacher's ability to make judgments based upon an overall unit of study might provide a broader perspective with regard to the interventions and teaching behaviors utilized on behalf of students with LD.

The manner in which teachers implemented various interventions influenced the consistency of perceptions. For example, both Mrs. V and Mrs. P reported use of oral reading error correction strategies as they worked with individual students. Teachers corrected students' fluency errors in a quiet manner that did not call attention to individual students with LD. As such, this intervention was not recorded during these observations and this factor accounted for some of the differences between teachers' and observer's reports.

There were also differences between observer and teachers' perceptions of the use of teaching behaviors for students in grades three and four. During a reflection, Mrs. V indicated that she provided additional time for the students with LD to complete this assignment. In so doing, she did not single out these students as requiring extra time nor was the observer aware of the initial time expectations for the lesson. Another example in the third grade classroom involved the rephrasing of instruction for the students with LD. It appeared that Mrs. V's review was a regular part of the instructional process, but she expressed that rephrasing and repeating aspects of the lesson were additional components that she had incorporated on behalf of this group of students with LD. These occurrences highlighted the importance of understanding the context in which lessons occur, including both the time frames established during initial lesson planning and the amount of time that students generally take to complete tasks. The perceptions of the classroom teachers, who had intimate knowledge of lesson demands and student performance levels, seemed to be more valid than those of an observer without this type of background information.

Differences between the teachers' and observer's interpretation of definitions led to varying classifications of the interventions. In lesson two, for instance, Mrs. V noted that her use of visual cues in presenting vocabulary words represented a form of text enhancement as well. The observer viewed Mrs. V's efforts as being solely within the memory category of vocabulary instruction. This difference in perception related to varying interpretations of the definition of this intervention.

9.3 *Finding 3. The three general education teachers shared competencies with special educators in addressing the needs of students with LD.*

For this study, it has been hypothesized that participating general educators would perceive and identify the use and demonstration of competencies specified in CEC Performance Standards Three and Four when working with students with LD during reading comprehension instruction. CEC Performance Standards Three and Four identify competencies addressing individual learning differences and the use of appropriate instructional strategies. Standard Three emphasizes that effective teachers recognize the individual needs of students with disabilities. In working with students with LD in reading, competence is evident through the teacher's ability to adapt reading instruction and modify learning material as necessary. Competencies delineated under Standard Four highlight the importance of teacher knowledge with regard to effective interventions and the appropriate application of these techniques for students with LD. Specific competencies expected of teachers include the use of research supported methods, the teaching of learning strategies, and the utilization of reading techniques that are appropriate for students with LD (CEC, 2002).

The results of this study suggest that these general education teachers did share competencies identified for special educators in addressing the reading comprehension needs of students with LD in general education settings. Under CEC Performance Standard Three, specific competencies include the adaptation and modification of reading instruction as necessary to address the needs of individual students.

This process was evident for each of the three teachers in their use of multiple teaching behaviors in modifying instruction. Teachers implemented the majority of the 11 teaching behaviors investigated in this study (clarifying directions, rephrasing instruction, providing individual assistance, modifying assignments, modeling, prompting of students, maintaining physical proximity, adjusting learning materials, instructing small groups, giving verbal encouragement, and offering additional time) to enhance the performance of students with LD. Teachers' selection and utilization of particular teaching behaviors to adapt instruction were based upon their recognition of individual students' needs in each of the three classrooms.

The use of effective interventions and research supported methodology on behalf of students with LD are key components of CEC Performance Standard Four. A review of pertinent literature identified memory, text-based, organizational, and affective interventions that are effective for students with LD. Each of the three teachers implemented multiple interventions in the observed lessons. Furthermore, each of the three general education teachers demonstrated and used reading techniques that were appropriate for students with LD, which is an important aspect of CEC Performance Standard Four.

10. Limitations

Number of participants. The first limitation of the study was the small number of participants involved. With just three research participants, it is problematic to endeavor to generalize the results of this study to other inclusion classrooms (Marshall & Rossman, 1995). The perceptions of individual teachers may vary based upon background, values, and instructional setting. Rather than attempt to generalize results, the aim was to provide information on the role of reflection in effective teaching (Schon, 1983). The process of being reflective within the context of this study is one that promoted awareness of reading comprehension strategy use in serving students with LD in general education settings, and demonstrated the extent to which general education teachers perceived themselves to share competencies with special education teachers.

Subjective nature of coding. The subjective nature of the coding scheme is a limitation in this study. One of the reasons cited for differences between teachers' self-perceptions and those of the outside observer related to the interpretation of definitions. Although definitions for interventions were specified in the observation protocol, the interpretation of intervention use varied among the three teachers. Furthermore, explicit reporting of the interventions or teaching behaviors did not always occur. On some occasions, the teachers regarded particular interventions or teaching behaviors as a normal or regular part of their instructional routine and did not perceive its use as a strategy to address the needs of students with LD.

Contextual factors. Several contextual factors limited the observer's ability to accurately perceive interventions or teaching behaviors. These factors included the content of previous lessons, established expectations for the group of students, and individual needs of students with LD. Within the context of this study, it seemed the classroom teachers' perceptions were likely to be more accurate than those of an observer due to the teachers' intimate knowledge of lesson demands and student performance levels.

11. Implications

This study has implications for general education teachers in their work with students with LD. Based upon interviews with the participating teachers following their reading comprehension lessons, it was reported that the process of reflection fostered increased awareness of the interventions and teaching behaviors that the teachers utilized on behalf of students with LD. Each of the teachers indicated that the interview process was beneficial in guiding their reflections on practices in serving students with LD. It also served to highlight the relationship between the teachers' practices and research supported methods. Teachers expressed an increased interest in the reflective process as a means for evaluating their work on behalf of all students.

The findings of this study have implications with regard to specific professional development practices. For instance, is there a need for further training to enhance teachers' ability to reflect on professional practice in addressing the needs of students with LD (Manning, 2002). The methodology employed in this study can support engagement with other general education teachers in this process of reflecting on their interventions and teaching behaviors in the area of reading comprehension on behalf of students with LD.

Increased awareness by general education teachers of research based practices and attention to individual needs can enhance instruction for students with LD in general education settings. The current study investigated the perceptions of general education teachers in their work with students with LD. Students with other types of disabilities are included in general education settings for instruction, and reflection on the implementation of effective practices on their behalf would appear beneficial as well.

Finally, these findings may have specific applications for principals and supervisors responsible for the evaluation and professional development of general education teachers who instruct students with LD in the elementary grades. It would suggest that consideration be given to the integration into the supervisory process of professional standards that reflect competencies shared by general and special educators.

Table 1 : Comparison of teachers' perceptions of their intervention use

Intervention category	Intervention	2nd grade	3rd grade	4th grade
	Activation of prior knowledge	83%	83%	100%
	Vocabulary instruction	83%	83%	83%
Memory	Repeated reading	67%	50%	67%
	Use of audiotapes	50%	33%	0%
	Oral reading error correction	67%	17%	67%
	Paraphrasing	50%	17%	100%
	Summarization	50%	67%	83%
	Story-mapping	33%	33%	17%
Text-based	Self-questioning techniques	33%	67%	83%
	Analysis of relationships	50%	17%	100%
	Evaluation of character motives	17%	17%	83%
	Graphic organizers	50%	83%	83%
Organizational	Text enhancement	67%	67%	50%
	Study guides	50%	67%	33%
	Study techniques	0%	0%	100%
Affective	Use of reinforcement strategies	67%	83%	67%
	Cooperative learning	33%	83%	67%

Table 2: Comparison of a second, third, and fourth grade teacher's perceptions of their use of teaching behaviors

Teaching behavior	2nd grade	3rd grade	4th grade
Clarifying directions	83%	67%	100%
Rephrasing instructions	50%	83%	100%
Individual assistance	83%	67%	83%
Modification of assignment	67%	17%	67%
Modeling	100%	83%	83%
Prompting of students	83%	67%	67%
Physical proximity	83%	100%	83%
Adjustment of learning materials	67%	17%	50%
Small group instruction	33%	83%	100%
Verbal encouragement	83%	83%	83%
Additional time	17%	83%	67%

Table 3: Percentage of agreement between teachers' self and observer's perceptions of intervention use.

Intervention category	2nd grade	3rd grade	4th grade	Total
Memory	70%	82%	67%	72%
Text-based	39%	53%	92%	64%
Organizational	67%	71%	63%	67%
Affective	71%	91%	64%	76%
Overall	61%	74%	73%	69%

Table 4: Percentage of agreement between teachers' self and observer's perceptions of teaching behaviors.

Teacher	Teaching behaviors
Second grade teacher	51%
Third grade teacher	73%
Fourth grade teacher	71%
Total	65%

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