

Main Idea Identification with Students with Mild Intellectual Disabilities and Specific Learning Disabilities: A Comparison of Explicit and Basal Instructional Approaches

Abstract: Students with high-incidence disabilities struggle with reading comprehension due to difficulties in background knowledge and metacognitive skills, including use of self-monitoring and other strategies. In the United States, these students typically receive the majority of their instruction in general education settings. However, there is little research comparing reading comprehension interventions with the typical basal curricula used in these classrooms. We compared the effects of an explicit reading comprehension intervention to those of a typical language-arts curriculum on upper elementary and middle school students' ($n = 38$) retells of passages and understanding of main ideas. A 2 X 4 repeated measures multivariate analysis of variance (MANOVA) revealed significant differences between instructional groups. These results indicate systematic and explicit reading comprehension instruction can be delivered successfully to students with high-incidence disabilities in general education settings.

Students with high-incidence disabilities struggle with reading comprehension due to difficulties in the critical areas of background knowledge and metacognitive skills, which include self-monitoring and strategy use. Background knowledge appears to aid the reader in constructing more accurate and cogent representation of the text (Caillies, Denhiere, & Kintsch, 2002) and students with high-incidence disabilities' lack of background knowledge significantly contributes to poor reading comprehension (Snider & Tarver, 1987). Metacognitive skills are another important component of successful reading comprehension, and involve the ability to realize when one's efforts to derive meaning have been unsuccessful and to actively seek clarification in those situations (Ezell & Goldstein, 1991a). Researchers have found students with high-incidence disabilities do not monitor their comprehension while reading (Abbeduto & Short-Meyerson, 1997; Kamhi & Johnston, 1982). In addition, children with high-incidence disabilities were likely to over-generalize successful strategies into inappropriate contexts, essentially transforming them from productive strategies into unproductive strategies which often results in inefficient reading (Mason, 1978; Turner, Hale, & Borkowski, 1996; Turner & Matherne, 1994).

To address these deficits, researchers have developed reading comprehension interventions for students with high-incidence disabilities. Interventions designed to address background knowledge include (a) vocabulary instruction through mnemonic devices (Scruggs, Mastropieri, & Levin, 1985); (b) direct instruction and activity-based instruction for teaching vocabulary (Losardo &

Bricker, 1994); and (c) instruction related to text structure (Ezell & Goldstein, 1992; Ezell & Goldstein, 1991b; Kim & Lombardino, 1991). Interventions designed to address metacognitive deficits include story frame instruction (Boyle, 1996; Fowler & Davis, 1985) and strategies for finding the main idea (Chan, 1991; Jitendra, Cole, Hoppes, & Wilson, 1998).

Several studies (Adams, Carnine, & Gersten, 1982; Patching, Kameenui, Carnine, Gersten, & Calvin, 1983; Singer & Donlan, 1982) successfully demonstrated the effectiveness of applying direct instruction methods to the teaching of comprehension skills. For example, Bigler (1984) investigated the effects of two direct instruction techniques on inferential comprehension. Bigler characterized the first instructional technique as “looking for clues,” (i.e., identifying and underlining the key details to draw conclusions) and the second technique as a “think out loud” procedure (i.e., modeling and practice as a way to draw conclusions and predict outcomes). She selected eight students with mild intellectual disabilities as subjects for the study and employed a crossover experimental design in which each participant received both experimental conditions (i.e., “looking for clues” and “think out loud”). The order in which the subjects were presented with these two independent variables was varied to reduce the impact of sequencing effects associated with this design. After establishing a baseline, each student began with either Condition A (i.e., “looking for clues” technique) or Condition B (i.e., “think out loud” technique). After exposure to each condition, the students were asked inferential questions requiring them to draw conclusions and make predictions. Bigler found all eight subjects improved in their abilities to draw conclusions and make predictions. However, no significant difference was found between either instructional technique in terms of its influence on the students’ comprehension.

Losardo and Bricker (1994) extended previous direct instruction research to younger children, while comparing the effectiveness of direct instruction with an activity-based method. Six participants with developmental delays received instruction on 12 vocabulary words. Each participant received instruction on the first group of six words using direct instruction, followed by instruction on the second group of six words using an activity-based method. Losardo and Bricker found direct instruction more effective than the activity-based approach in terms of the acquisition of object names. However, the activity-based approach seemed to facilitate more generalization of new object names among the children in the study. The researchers concluded both methods appear to have value as an instructional intervention to improve vocabulary development with young children identified as having developmental delays.

Research related to reading comprehension for students with high-incidence disabilities examined the extent to which the structure and context of language influences comprehension acquisition (Kim & Lombardino, 1991). They examined specific aspects of script contexts, such as sequential organization and causal relationships as well as students’ responses to both script-based and nonscript-based interventions in relation to their ability to comprehend. Four female children with high-incidence disabilities were selected to participate in this alternating treatments design study. In the baseline condition, all four subjects demonstrated the required stability in performance necessary for subsequent comparisons. With the introduction of the script-based intervention, three of the four children exhibited increased comprehension (demonstrated by an increase in acquisition, and an increased in accuracy on the probes. In terms of accuracy, the children in the study showed a positive accelerating trend with respect to the number of correct responses given under the script-based conditions indicating the script-based approach is a more effective method to

improve the comprehension of children with high-incidence disabilities.

Another approach to reading comprehension instruction focuses on strategies for main idea identification because it is crucial to successful comprehension, and in a larger sense, learning from text in general. Chan (1991) utilized self-questioning strategies to facilitate the identification of main ideas. In addition, she sought to investigate whether additional instruction in a multi-stage procedure in which the teacher provided modeling and overt guidance would increase generalization. Chan selected 60 elementary-aged students with high-incidence disabilities and randomly assigned them to either a standard instructional condition or a generalization instructional condition. Both groups received instruction on how and when to apply a uniform set of 15 self-questions designed to bolster students' ability to negotiate the process of main idea identification. The subjects' performance on the posttests indicated that both conditions produced an increase in identification of main ideas; however, subjects in the generalization condition performed better than those in the standard condition.

Jitendra et al. (1998) investigated the effects of direct instruction procedures and a self-monitoring technique to encourage generalization. They selected four upper elementary age children with high-incidence disabilities to participate in the study, with one of the four serving as a control. Jitendra et al. took direct instruction procedures based on the earlier work of Carnine, Silbert, and Kameenui (1990), which were designed to enhance main idea summarization and identification, and combined them with a similar procedure for self-monitoring. The subjects under the experimental condition were taught seven lessons in a teacher-directed fashion, with each instructional session lasting between 40 and 50 minutes. This was coupled with two days of self-monitoring training. The results indicated the direct instruction procedure resulted in

greater performance and the self-monitoring component produced positive results. However, results of self-monitoring instruction faded quickly, which may have been due to the lack of instructional time devoted to strategy instruction.

Subsequently, Jitendra, Hoppes, and Xin (2000) implemented a group design study to further investigate the role of self-monitoring in effective main idea identification. Jitendra et al. selected 33 subjects from upper-elementary age to middle-school age with high-incidence disabilities to participate in their study. With consideration given to grade level, these students were randomly assigned to either a control (i.e., traditional reading) or an experimental group (i.e., instruction in main idea identification strategies with self-monitoring strategies). The main idea identification strategies were modeled by the teacher and followed by guided and independent practice. The self-monitoring aspect of the intervention used a four-step self-monitoring procedure in which the subjects checked off a series of steps listed on a prompt card used during passage reading. When instruction on main idea identification was blended with self-monitoring instruction, students with high-incidence disabilities performed better than similar students who received more traditional instruction. In fact, their findings also showed these improvements persisted over time.

Previous researchers have investigated various strategies for increasing the reading comprehension skills of students with high-incidence disabilities. It is important that the research literature continue to compare reading comprehension interventions with typical basal curricula used with general education classrooms. Students with high-incidence disabilities typically receive the majority of their instruction in general education classrooms. Therefore, it is important to demonstrate whether explicit reading comprehension intervention programs are more effective than typical curricula. The purpose of this study was to examine the

effects of two different instructional approaches (i.e., explicit strategy instruction in using rule statements and multi-step procedures versus a traditional basal language arts curriculum) to improving main idea identification in upper elementary and middle school students with high-incidence disabilities.

Method

Participants

Forty students were chosen to participate in the study; however, two students did not participate due to excessive absences. Therefore, 38 students in elementary (grades 3-5) and middle school (grades 6-8) with high incidence disabilities participated in the study. The students received special education services, meeting the eligibility requirements for either mild intellectual disabilities (MID) or specific learning disabilities (SLD) as defined by the *Individuals with Disabilities Education Improvement Act* (2004). The students' background information is summarized in Table 1.

All of the participants received language arts instruction in general education classrooms. Students were chosen based on their reading ability and their parental consent for participation. The criteria for participation included demonstration of fluency skills and deficits in comprehension as follows: (a) demonstration of oral reading fluency at grade 1 for elementary students, based on The Dynamic Indicators of Basic Early Literacy (DIBELS; Good & Kaminski, 2003) or at grade 3 for middle school students, based on The Dynamic Indicators of Basic Early Literacy; and (b) demonstration of difficulties in reading comprehension, as measured by standard scores on the *Kaufman Test of Educational Performance II* form A (KTEA-II; Kaufman & Kaufman, 2004).

Teachers administered the DIBELS and KTEA-II Form A prior to the first week of the study. Random assignment was used to ensure both the basal and explicit groups were equiv-

alent. A researcher drew student names from a list and alternately assigned them to the two different conditions. Two students initially selected for the basal group had excessive absences and their data could not be included in the analysis. The equivalence of the group was checked using independent-samples *t*-tests on three variables and found no significant differences: (a) obtained IQ score ($t(36) = .13, p = .90$), (b) reading comprehension standard scores ($t(36) = -1.31, p = .20$), and (c) oral reading fluency rates ($t(36) = -.81, p = .43$). There were 18 students in the basal approach group (15 elementary and three middle school students) and 20 students in the explicit approach group (17 elementary and three middle school students).

Setting

The schools that participated in this study were located in a rural area of the southeastern United States. The community has an estimated population of 14,500 residents according to U.S. Census 2009 population projections. The elementary school served approximately 620 students and the middle school served approximately 580 students. The majority (65%) of the students enrolled in each school received free or reduced lunch and the cultural background of the students was as follows: 54% African American, 1% Asian/Pacific Islander, 4% Latino/a, and 41% White. The reading comprehension intervention lasted three weeks and served as a supplement to whole group language arts instruction in the general education classroom. The students' special education teachers implemented the intervention in a small group resource room setting, four days per week for approximately 45 minutes per session.

Independent Variable

The independent variable was the instructional strategy used in the students' general education classrooms. In the experimental condition, the strategy employed rule statements and multistep procedures and in the

control condition, the strategy employed activities consistent with typical basal instruction. Over the course of twelve instructional sessions (45 minutes each), the control group received instruction using the current basal program (*McGraw-Hill Reading*, 2001) in its exact format while the experimental group received a modified version of the program. The basal reading program was modified to create the explicit instructional approach. Program modifications were based on the explicit instructional formats found in the *Voyager Passport* (2004) intervention program and included rule-based statements for finding the main idea and a multi-step procedure for

finding the main idea within multiple-paragraph passages. The materials for both groups matched the participants' functional reading levels based on DIBELS pretests.

Explicit instruction. To create the explicit instruction, lessons were generated that presented rule-based statements in a scripted presentation format without any pictures accompanying the text. Pictures were removed to reduce confounding effects associated with picture clues. An example of a rule-based statement was “the main ideas of paragraphs are usually expressed in the first few sentences of the paragraph.”

Table 1
Demographics of Participants

Characteristic	Basal Approach (<i>N</i> = 18)	Explicit Approach (<i>N</i> = 20)
Gender		
Male	14	14
Female	4	6
Exceptionality		
SLD	13	14
MID	5	6
Ethnicity		
African American	14	15
Caucasian	4	5
Grade		
7th	2	0
6th	1	3
5th	5	5
4th	8	7
3rd	2	5

Instruction for the multistep procedure was also presented through a scripted presentation format without any pictures accompanying the text. This procedure helped participants cope with multi-paragraph passages in which there were many important ideas and only one main idea of the passage. The procedure guided student effort to properly select the idea that mattered most in terms of the passages' overarching meaning.

The explicit instructional approach modified the presentation of the basal reading materials and utilized a lesson format that reflected many of the key principles of the direct instruction approach to teaching. Specifically, this approach was scripted to control for confusing teacher language, instructional scaffolds, and immediate corrective feedback. The presentation of the lesson under this instructional approach followed a predetermined format. Lessons began with a quick review of the key elements of the previous lesson along with a statement of the current lesson's goals. A general rule statement or strategy was presented and intended to help the student learn the skill being taught in the lesson. Here is one example: "When attempting to identify the main idea of a paragraph, pay close attention to the topic sentence (i.e., the first sentence) and the concluding sentence (i.e., the last sentence) of the paragraph." The lesson then involved the teacher modeling and leading the students through the implementation of a strategy. In the current example it might be highlighting these crucial sentences or going back and rereading them after the students read the whole paragraph. The students then were given a chance to practice independently while the teacher monitored and provided corrective feedback. Throughout the lesson, the teacher maintained a brisk pace and provided reinforcement for desired student behaviors. The lesson concluded with a closure activity that set the stage for the next lesson (Darch, 1990; Rosenshine, 1986; Tarver, 1999).

Basal instruction. The basal instructional approach was predicated on the use of a classroom reading series that included three fundamental components. The first component was an anthology of literature. These anthologies provided a wide variety of material that covered various genres of writing and included spiraling and progressive content (Wiggins, 1994). The second component was the teacher resource guides which assisted the teacher in dividing the anthology into instructional units that addressed specific requisite skills, strategies, and themes. The third basic component was the supporting materials. These included a variety of worksheets, trade books, and instructional software that supported the individual lesson objectives (Stein, Johnson, & Gutlohn, 1999).

Procedures used by the basal approach teacher included activating the participants' prior knowledge of the story's content. For example, a story concerning jazz began with a discussion about the participants' favorite types of music. Next, the teacher asked the participants to read the text either in a round-robin fashion or silently. Finally, the lesson culminated in a summative activity that assessed whether or not the participants generally understood the main idea of the passage.

In contrast to the explicit instructional approach, the basal instructional approach did not offer any guiding rule statements or any governing procedure concerning how to attack the problem of main idea identification. Additionally, the basal approach placed no limits on the language of the teacher. For example, terms such as *main idea*, *point*, *meaning*, or *theme* may have been used interchangeably. Finally, although correction of the participants by the teacher was allowed under the basal approach, such corrections did not follow any standard format nor were they necessarily immediate.

Dependent Variable

The dependent variable was identification of main ideas, as measured by three unit tests, one maintenance test, and a qualitative measure in the form of story retells. The unit tests were curriculum-based assessments (CBAs) designed by the first author that included brief paragraphs and passages taken from the current week's set of stories. The researcher-developed CBAs were designed as a set of 10 multiple choice questions matched to each paragraph or passage that assessed the students' ability to identify the main ideas of the selected paragraphs and passages. Unit tests were administered by the teachers at the end of each instructional week and student performance was reported as the percentage of correct responses. While administering the unit tests, teachers offered neither corrective feedback nor prompting.

A curriculum-based assessment-maintenance measure designed by the first author consisted of 10 multiple choice questions matched to selected paragraphs and passages of text taken from the stories used in the study. The maintenance measure was developed to assess students' retention of learning over time. The students completed a maintenance test two weeks after the conclusion of the study.

Story retells added a qualitative measure which assessed the degree to which the participants grasped the main ideas presented in the lesson's text. The story retells contained (a) a scripted set of teacher instructions read to the students, (b) a sheet for transcription of the students' responses, and (c) a scripted oral prompt from the current story that the teacher could use to stimulate a student's memory to elicit suitable responses concerning the main idea of the passage. Story retells were administered at the end of each lesson.

Story retells were scored using a simple rubric which allowed for the assignment of a score to each retell based on the quality of student

responses. The teachers made notations detailing the students' responses to aide in the assignment of scores. In addition, the students' responses to the story retells were transcribed. This allowed for an independent rater to also score the students' responses in order to establish interrater reliability. In instances in which a student's response was not adequate, the teacher provided corrective feedback and/or read the oral prompt again to facilitate an acceptable response. See Figures 1-3 for sample scoring of story retells.

Teacher Training

Fully-certified special education teachers with experience teaching students with high-incidence disabilities served as the experimental teachers in this study. All of the experimental teachers were white females who held master's degrees in special education. The teaching experience of the experimental teachers ranged from 9–22 years in public education.

The use of multiple experimental teachers increased the internal validity of the study. A balanced assignment of treatment conditions across teachers was used, with each experimental teacher implementing both treatment conditions (basal and explicit), which helped control for the effects of varying levels of professional training and experience. This also helped to control for any possible teacher bias.

To increase the fidelity of treatment for both instructional groups, each teacher participated in two four-hour training sessions prior to the implementation of the study, with one session focusing on the explicit treatment condition and the other session focusing on the basal treatment condition. Additionally, each teacher had an opportunity to practice both delivery methods during these training sessions. The researcher provided coaching and corrective feedback during the teachers' practice demonstration lessons.

The first training session focused on the importance of key components of the explicit approach such as providing direct instruction and ensuring adherence to the lesson format. The second training session was tailored toward implementing the key components of the basal approach by focusing on one adopted reading series, McGraw-Hill Reading (2001), that was currently used in general education classrooms in the district. Finally, both training sessions covered classroom management and the importance of the teacher maintaining a positive, consistent learning environment during the implementation of the treatment conditions.

Treatment Integrity and Interobserver Reliability

The primary researcher conducted six observations of the instructional lessons for the purpose of measuring treatment integrity, 25% of the explicit lessons and 25% of the basal lessons. The primary researcher used an observation form specific to each type of instructional approach and each form focused on quality of instructional delivery, the time allotted to each phase of the lesson, and the techniques used for behavior / student management.

To assess interobserver agreement, two independent observers holding doctorates in spe-

Figure 1

Story Retell Sample: Score of 0

Retell Scoring Form "The More the Merrier"

Please tell me all about what you just read. Try to tell me everything you can. **Begin.** Begin transcribing. If the student does not say anything for 3 seconds say, **Listen while I read some of the passage, read the prompt, Try to tell me everything you can.**

Prompt: **Danisha was thinking about what to do on Saturday, since it was her birthday. She wanted it to be a special day. "There should be a cake with seven candles," she thought. "We can play games, listen to music, and dance. And Dad can do a magic trick, too!"**

This prompt can be used only once, and if the student does not say anything or gets off track for 5 seconds say **Stop.**

Scoring Rubric:

- 2 points student response - Student mentioned many of the main ideas of the paragraphs and the passage as a whole.
- 1 point student response - Student mentions the main idea of the passage as a whole with little mention of supporting main ideas.
- 0 point student response - no response or unrelated response.

Sample Response Score of 0

It was three children walking dogs. They got wet and went running.

cial education (both trained and experienced in explicit and basal instructional approaches) conducted fidelity observations along with the researcher. The researcher accompanied one of these independent observers during 66%, or four out of the six, fidelity observations conducted over the course of the study. This observation schedule resulted in two simultaneous observations of the basal condition and two simultaneous observations of the explicit condition.

The results of the fidelity observations indicated high fidelity across both instructional

groups. The mean score for the observations was 96.6% for basal instruction and 100% for explicit instruction. Interobserver agreement was 100% for basal and 95% for explicit instruction.

Social Validity

In an effort to examine social validity, students completed a satisfaction survey at the end of the study. This survey consisted of a simple four-question Likert scale survey that was read to the participants by the teachers. The Likert scale encompassed three levels of responses:

Figure 2

Story Retell Sample: Score of 1

Retell Scoring Form "Journey to America"

Please tell me all about what you just read. Try to tell me everything you can. Begin.

Begin transcribing. If the student does not say anything for 3 seconds say,

Listen while I read some of the passage, read the prompt, Try to tell me everything you can.

Prompt: Marco and Lena were excited; they were going to board a ship that would take them from Italy to America. "The trip will be difficult," said Marco, as they stopped to rest. "Yes," Lena agreed. "But just think. In America we can find jobs. Perhaps we can even send money back to our family."

This prompt can be used only once, and if the student does not say anything or gets off track for 5 seconds say **Stop**.

Scoring Rubric:

2 points student response - Student mentioned many of the main ideas of the paragraphs and the passage as a whole.

1 point student response - Student mentions the main idea of the passage as a whole with little mention of supporting main ideas.

0 point student response - no response or unrelated response.

Sample Response Score of 1

There were two girls. Anthony paid for a trip to America. A bad hurricane trapped a man and his wife for three days. The first family helped them by bathing them and giving them food. It was dark and a lot of people were down there and got sick.

(a) responses designated as “Agree” received a numerical value of 3, (b) responses designated as “Don’t Know” received a numerical value of 2, (c) and responses designated as “Disagree” received a numerical value of 1. The students were asked the following: (a) the degree to which they like being in the reading group, (b) their perception of their improvement in reading as a result of being in the group, (c) their willingness to participate in the group again,

and (d) their thoughts about other students wanting to participate in the group.

Data Analysis and Results

A 2 X 4 repeated measures multivariate analysis of variance (MANOVA) was conducted for the unit tests and maintenance measure. The MANOVA (basal v. explicit) by (unit test 1, unit test 2, unit test 3, and maintenance test) was conducted using the Statistical Package for the Social Sciences (SPSS) version 16.0.

Figure 3

Story Retell Sample: Score of 2

Retell Scoring Form “Lost at Sea”

Please tell me all about what you just read. Try to tell me everything you can. Begin. Begin transcribing. If the student does not say anything for 3 seconds say, Listen while I read some of the passage, read the prompt, Try to tell me everything you can.

Prompt: Dad joined Eva on deck. He was carrying two ripe bananas. “Want one?” he asked. Eva shook her head. “It’s cold out here,” he said. “Come inside. Danny’s asking for you.” Eva nodded. She followed Dad to the shelter of Danny’s room. Last night Danny had become sick. Today he was worse.

This prompt can be used only once, and if the student does not say anything or gets off track for 5 seconds say **Stop**.

Scoring Rubric:

- 2 points student response - Student mentioned many of the main ideas of the paragraphs and the passage as a whole.
- 1 point student response - Student mentions the main idea of the passage as a whole with little mention of supporting main ideas.
- 0 point student response - no response or unrelated response.

Sample Response Score of 2

It was her first time to go to the boat to see the whales and stuff. She breathed in the cold air and grabbed the railing. She saw orcas and there were five of them. Then her brother Danny got really sick. They couldn’t turn the boat around because they were surrounded by fog and ice. Eva saw the female orca and remembered that her dad said that female orcas go to the shore to have their babies and the ship followed the orca, left, right, and upwards. They finally saw the shore and a station. Danny got to a hospital and the orca jumped out of the water and Eva said thank you and goodbye.

The independent variable was the type of instruction (basal or explicit) and the dependent variables were the four outcome variables listed parenthetically above.

The results of the MANOVA indicated a significant main effect for group, Wilks' lambda = .52, $F(3, 28) = 8.78$, $p < .00$. Estimates of effect size (ES) indicated a medium effect, $d = .49$, for unit tests and maintenance measure by group indicating an educationally meaningful effect and the power to detect the effect was .99. The post hoc pairwise comparisons indicated statistically significant differences between groups on unit test 1 and the maintenance test ($p < .01$) as well as unit test 2 and the maintenance test ($p < .01$) in favor of the explicit group outcomes. See Table 2 for MANOVA results and see Table 3 for descrip-

tive results of the unit test and maintenance measures.

Daily story retells was a measure of student performance. The purpose of the story retells was to provide a qualitative, curriculum-based assessment of the reading comprehension task. The group receiving explicit instruction performed slightly better than the basal instructional group. The weekly means for each group on story retells are presented in Table 4.

The results of the social validity measure indicate one difference between groups. The explicit instruction group's responses were higher than the basal group. The explicit group stated they were better readers as a result of participating in the intervention phase of this study.

Table 2
Multivariate Analysis of Variance Outcomes

Effect	Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.	Partial Eta Squared	Observed Power ^b
Time Wilks' Lambda	.52	8.78 ^a	3.00	28.00	.00	.49	.99
Wilks' Lambda	.92	.84 ^a	3.00	28.00	.49	.08	.21

a. Exact statistic

b. Computed using alpha = .05

Table 3
Unit tests and Maintenance Measure

Condition	UT1		UT2		UT3		MAINT	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Basal	78.57	25.68	72.14	22.59	64.29	19.89	62.86	14.90
Explicit	78.33	16.8	82.78	12.27	78.89	13.67	71.67	12.49

Discussion

The purpose of this study was to examine the effects of two different instructional approaches to improving main idea identification in upper elementary and middle school students with high-incidence disabilities. The two approaches were explicit strategy instruction in using rule statements and multi-step procedures versus a traditional basal language arts curriculum. The students were randomly assigned to either basal instruction or explicit instruction. Each group received twelve days of instruction in which teachers implemented basal and explicit lessons with each respective intervention group. Teachers collected student story retells at the end of each lesson and administered unit tests at the end of each instructional week.

Descriptively, students who received explicit instruction performed better than their peers who received basal instruction on unit test two (explicit group=82.8, basal group=72.1), unit test three (explicit group = 78.89, basal group = 64.29), and the maintenance measure (explicit group=78.9, basal group=64.3). In addition, students who received explicit instruction performed significantly better on unit tests than their peers with regard to growth in comprehension skills. Moreover, the explicit group demonstrated statistically significant maintenance of skills over the basal group. The students who received explicit instruction performed slightly better than

their peers on the qualitative outcomes of the weekly story retells.

The results of the current study are consistent with other research in which explicit instruction led to improved main idea identification (Chan, 1991; Jitendra et al., 1998). In the current study, students in the explicit instruction group learned to apply reading strategies and demonstrated improved metacognitive skills. This finding is consistent with the work of other researchers who taught students with LD and MID to utilize metacognitive strategies while reading (Boyle, 1996; Fowler & Davis, 1985).

Future Research

There are four key recommendations for future research that can be derived from the findings of this study. First, implement studies for a longer length of time, thus allowing for adequate time for the experimental approaches under examination to produce effects. In the case of this study, it would have been interesting to determine if the significant differences observed between the two treatment conditions would have stabilized in such a way as to produce sustained significantly better scores for the explicit approach. Furthermore, should such sustained effects be observed, studies with an expanded intervention period might be able to assess the permanence of the observed gains.

Table 4
Story Retell Assessments

	Week 1		Week 2		Week 3	
	Basal	Explicit	Basal	Explicit	Basal	Explicit
<i>M</i>	1.51	1.71	1.54	1.68	1.45	1.72
<i>SD</i>	0.41	0.33	0.41	0.26	0.38	0.33

Second, examine the impact of implementing a similarly designed study but with an expanded amount of instructional time per treatment session. With regard to the unit tests, a significant difference between groups was not established until the second test. Perhaps an expanded amount of instructional time per treatment session would have produced significantly greater scores sooner.

Third, consider repeating a similarly designed study with a greatly expanded sample. Although the size of the available sample may be limited by uncontrollable factors, future research should focus on obtaining a suitably large sample in order to increase the likelihood of reaching a significant level of effect size and observed power. Perhaps with a large sample the necessary effect size and observed power can be great enough to make educationally relevant decisions concerning the effectiveness of these instructional approaches.

Fourth, not only increase the number of participants in the sample, but also expand the grade level range of the participants. Future research should consider including high school students with mild-intellectual disabilities and specific learning disabilities in an effort to expand the generalizability of any potential findings.

Conclusions

Explicit instructional approaches, when applied to students with mild-intellectual disabilities, can produce positive instructional benefits. Furthermore, the results of this study support the findings of previous research that indicate heterogeneous instructional groupings produce positive instructional outcomes (Keegan & Shrake, 1991; Fountas & Pinnell, 1996; Elbaum, Schumm, & Vaughn, 1997; Vaughn, Hughes, Moody, & Elbaum, 2001; Poole, 2008). In particular, this study found heterogeneous groups composed of students with mild-intellectual disabilities and specific learning disabilities are capable of benefiting

from the same instructional treatments. This is a necessary and important condition given the push for heterogeneous instructional groupings by school districts across the United States (Vaughn et al. 1997; Chorzempa & Graham, 2006; Poole 2008).

The education of students with high-incidence disabilities in the general education classroom is no longer a hypothetical issue to be debated and analyzed; it is the reality of our public school classrooms. Families of children with disabilities have long struggled to guarantee their children a place in the general education classroom; perhaps for the first time, there is a real chance a place can be found. The issue now is not whether children with disabilities should be included, but rather are educators ready to teach them effectively? In addition to previous research, this study has shown that through the use of explicit, direct teaching methods even diverse groups of children can make educational gains. The struggle now is to see such practices put into place in our classrooms.

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