This pamphlet describes the Cooperative Integrated Reading and Composition (CIRC) program, a comprehensive approach to reading and writing instruction for grades 2 through 8. The pamphlet addresses the three principal elements of the program: story-related activities, direct instruction in reading comprehension, and integrated writing/language arts. In all of the activities that comprise the program described in the paper, students work in heterogeneous learning teams, and the activities follow a regular cycle that involves teacher presentation, team practice, independent practice, peer pre-assessment, additional practice, testing, and team recognition. The pamphlet also discusses implementing CIRC. Contains 15 references. A list of 27 basal series, 4 materials for teachers, and 90 novels are attached. (RS)
Cooperative Integrated Reading and Composition (CIRC) is a comprehensive approach to reading and writing instruction for grades two through eight. CIRC consists of three principal elements: story-related activities, direct instruction in reading comprehension, and integrated writing/language arts. In all of these activities, students work in heterogeneous learning teams. All activities follow a regular cycle that involves teacher presentation, team practice, independent practice, peer pre-assessment, additional practice, testing, and team recognition.

Students are assigned to pairs (or triads) within their reading groups, and then the pairs are assigned to teams composed of partnerships from two reading groups. For example, a team might be composed of two students from the top reading groups and two from the low groups. Mainstreamed, academically handicapped, and Chapter 1-identified students are evenly distributed among the teams. Students' individual scores on all quizzes, compositions, and book reports contribute toward a team score. Teams that meet an average criterion of 90-100% on all activities in a given week are designated SUPERTEAMS. Teams that meet an average criterion of 80-89% are designated GREATTEAMS and teams with an average criterion of 70-79% are designated GOODTEAMS. Team recognition consists of attractive certificates and other small rewards. Research on the use of heterogeneous teams which are rewarded on the basis of their individual members' learning has established the instructional effectiveness of this approach (Slavin, 1983a, b).
**Story-Related Activities**

Students can use their regular basal readers as an anthology of stories. These stories are introduced and discussed in teacher-led reading groups that meet for approximately 20 minutes each day. During these groups, teachers set a purpose for the reading, introduce new vocabulary, review old vocabulary, discuss the story after students have read it, and so on. Presentation methods for each segment of the lesson are structured. For example, teachers are taught to use a vocabulary presentation procedure that requires a demonstration of understanding of word meanings by each individual, a review of methods of word attack, and rapid repetitive oral reading of vocabulary to achieve fluency. The meaning of the vocabulary is used along with the title of the story to help set the context for the story. Prior to reading, the teacher and students discuss predictions of what the story might be about. After reading the story, the discussion emphasizes identifying the problem, predicting how the problem might be solved, and describing how characters changed as a result of their experiences. After stories are introduced, students are given a series of followup activities to do in their teams when they are not working with the teacher in a teaching group. These activities replace traditional workbook and worksheet activities.

**Partner Reading.** Students read the story silently, then read it orally with their partner or teammate. During oral reading, students take turns reading the story aloud, alternating readers after each paragraph. While their partner is reading, the listener follows along, correcting any errors the reader may make. Repeated reading has been found to contribute to decoding, and to comprehension of narratives (Samuels, 1979). Also, partner reading gives students a great deal of oral reading practice, and enables the teacher to assess student performance (by listening in) without having students read aloud in the reading group in round-robin fashion, wasting the time of students in the group who are awaiting their turn to read.

**Story Grammar & Story-Related Writing.** Students are given questions related to each narrative story emphasizing the story grammar. Halfway through the story, they are instructed to stop reading and to identify and describe the character, the setting, and the problem in the story, and to predict how the problem might be resolved. At the end of the story, students respond to the story as a whole. They describe attempted solutions to the problem and their result, the final resolution of the problem, and ways characters may have changed as a result of their experiences in the story. Students are also given an open-ended writing assignment, where they write a few paragraphs on a topic related to the story (for example, they might be asked to write a different ending to the story). Research on reading comprehension has indicated the importance of students learning story grammars (Fitzgerald & Spiegel, 1983; Short & Ryan, 1982; Stein & Glenn, 1979) and of making predictions based on partial information about stories (Palincsar & Brown, 1984).

**Word Mastery List.** Students are given a list of new or difficult words used in the story which they have to be able to read correctly in any order without hesitating or stumbling. Students practice these word lists with partners or other teammates until they can read them smoothly. This activity is designed to help students gain automaticity in decoding critical words (Perfetti, 1985; Rosenshine & Stevens, 1985; Samuels, 1981).

**Word Meaning.** Students are given a list of vocabulary words for the story. Some of the vocabulary words are identified for extensive vocabulary development activities. Students look them up in a dictionary, paraphrase the definition, and write a meaningful sentence for each word that shows the meaning of the word (i.e., "an octopus grabbed the swimmer with its eight long legs," not "I have a pet octopus.").

**Story Retell.** After reading the story and discussing it in their reading groups, students summarize the main points of the story to their partners. Summarizing recently read material in one's own words has been found to be an effective means of enhancing comprehension and retention of the material (Doctorow, Wittrock, & Marks, 1978; Weinstein, 1982).

**Spelling.** Students pretest one another on a list of spelling words each week, and then work over the course of the week to help one another master the list. Students use a "disappearing list" strategy in which they make new lists of missed words after each assessment until the list disappears. Then they are tested on the full list, repeating the process as many times as is necessary to master all of the words.

**Partner Checking.** After students complete each of the activities listed above, their partners initial an assignment record form indicating that they have completed and/or achieved criterion on that task. Students are given daily expectations as to the number of activities to be completed, but they can go at their own rate and complete activities earlier if they wish, creating additional time for independent reading.

**Tests.** At the end of approximately three class periods, students are given a comprehension test on the story, a test on writing meaningful sentences for certain vocabulary words, and a test of their oral reading of the words on the word mastery list by the teacher. Students are not permitted to help one another on these tests. Test scores and evaluations of the story-related writing are major components of students' weekly team scores.

**Direct Instruction in Reading Comprehension**

One day each week, students receive direct instruction in reading comprehension skills (e.g., identifying the main idea, drawing conclusions, interpreting figurative language, etc.). A step-by-step curriculum was designed for this purpose. After each lesson, students work on reading comprehension activities and games with their team, first gaining consensus on one set of items and then assessing another and discussing any remaining problems on a second set of items. Recent research indicates that reading comprehension can be effectively taught as a skill separately from basal instruction (e.g., Palincsar & Brown, 1984; Paris, Lipson, & Wixson, 1983; Stevens, 1988).
Integrated Language Arts / Writing

During language arts time, teachers use a specific language arts/writing curriculum especially developed for the project. The writing component uses a process approach to writing, with both the teacher and teammates providing the writer with feedback and help during their writing-revising-editing process. On all writing assignments students draft compositions in consultation with peers, and then edit each other’s work using peer editing forms emphasizing both the content of the composition and its grammatical and mechanical correctness. Students revise their completed compositions on the basis of this peer feedback. The peer editing forms begin very simply, but as students master successive skills the forms are made increasingly complex.

Writing process models using peer response groups and a sequence of planning, drafting, revision, and editing have been found to be effective in previous research (Hillocks, 1984), although very little of this research as been done at the elementary level.

Students are also given teacher-directed instruction on skills such as writing descriptions and how to write good leads for a story. This instruction provides students with models of good writing and independent practice applying the instruction in their own writing.

Students also work as teams on language arts skills which lead directly to writing activities. The emphasis of the language arts curriculum is always on writing, and language mechanics skills are introduced as specific aids to writing rather than as separate topics. For example, students study modifiers and then are given practice using them in their descriptive paragraphs. Similarly, when students start using dialogue in their writing, the teacher will provide them with instruction and practice using quotation marks.

Independent Reading. Every evening, students are asked to read a book of their choice for at least twenty minutes. Parents initial forms indicating that students have read the required time, and students contribute points to their teams if they submit a completed form each week. Students complete at least one book report every two weeks, for which they also receive team points. If students complete their story activities or other activities early, they are encouraged to read their independent reading books in class.

Program Evaluation. Two field experiments with intact third and fourth grade classrooms have evaluated the effectiveness of the CIRC program, as compared to control groups using similar basal reading curricula with more traditional instructional processes. In general, the results show superior performance by the CIRC classes on standardized achievement tests, writing samples, and oral reading inventories. Similar effects were seen with the subpopulation of mainstreamed students found in the classrooms involved in these studies. These evaluations are reported in CREMS Reports Nos. 5 and 10, published by the Center for Social Organization of Schools.

A subsequent long-term study, two years in length, in grades two through six, has replicated the previous results. In comparison to matched classes using traditional instruction, CIRC students scored significantly higher on standardized achievement tests of reading vocabulary, reading comprehension, and language mechanics. This study is published in CREMS Report No. 42. For copies of these reports, contact the Dissemination Office, Center for Social Organization of Schools, Johns Hopkins University, 3505 N. Charles Street, Baltimore MD 21218. (410) 516-8808. Fax (410) 516-8890.

Implementation of CIRC

CIRC is a National Diffusion Network (NDN) approved program. Training and materials are available, but it is important that the materials correspond with the basals, novels, or other graded reading materials available in your schools.

Training. The daily cost of training is $700 plus expenses. Training sessions have varied formats depending upon the background of the participants. We request that at least two teachers per school receive training so they can provide support for one another as they begin to implement the program. We strongly recommend that principals and other administrators attend the training to become aware of the followup and support necessary to implement the program.

Materials. A structured sequence of cognitively engaging activities, called Treasure Hunts, replaces traditional workbook activities. Each set of reproducible materials includes three main sections for novels or stories in the basal: student practice, quiz, and teacher’s instructions. Generally, the CIRC processes with a novel take about three weeks. A current list of Treasure Hunts can be found on the last pages of this pamphlet.

Teacher’s Manuals. Teacher’s Manuals explain the CIRC cycle of instruction in a step-by-step fashion, including procedures for introducing CIRC to a class. There are two separate manuals, one for reading and one for writing/language arts. We strongly recommend that each teacher have copies of the manuals to reference.

Reading Comprehension Skills. Instructional materials have been developed for levels of reading comprehension for students reading at second through sixth grade levels. We strongly recommend that appropriate reading comprehension materials be ordered to complement the basal-or novel-related materials. These reading comprehension materials apply cognitive research in reading comprehension to step-by-step instruction on general reading comprehension strategies and metacomprehension strategies. Each set includes student practice activities, quiz activities, and teacher’s instructions.
The writing/language arts materials use a writing process approach to instruction. They provide teachers with a systematic way to teach students the components of the writing process, and how to use them effectively in writing. There are peer-centered and teacher-directed lessons focusing on the development of writing skills. Lessons on language mechanics and style, with activities integrating them with writing are also provided. Materials include student practice activities, quiz activities, and teacher's instructions.

Video. This NEW full-color presentation provides an overview of CIRC using scenes from schools across the United States. Teachers and students from many grade levels are shown in a variety of classroom settings enthusiastically involved in the CIRC cycle of instruction. This video is useful for providing awareness of CIRC to staff members or as a followup to training. VHS, 10 minutes, $15.00 plus shipping.

Full reports of the research studies mentioned in this overview may be ordered from the Publications Office, Center for Social Organization of Schools, Johns Hopkins University, 3505 North Charles Street, Baltimore, MD 21218.

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REFERENCES


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ECONOMY 1986 • Levels 1 to 6
GINN READING PROGRAM 1982 • Levels 1 to 6
SIMILAR TO 1985, 1987
GLENCOE-MACMILLAN 1985, 1987 • Levels 6 to 8
HARCOURT BRACE & JOVANOVICH 1983 • Levels 2.1 to 6
HARCOURT BRACE & JOVANOVICH 1989 • Levels 1 to 6
HARCOURT BRACE & JOVANOVICH 1993 • Levels 1.5 to 6
HARCOURT BRACE & JOVANOVICH 1993 • Levels 1.5 to 6
HOLT 1983, 1986 • Levels 1 to 6
HOLT 1989 • Levels 1 to 5
HOUGHTON MIFFLIN 1981, 1983 • Levels 2.1 to 6
HOUGHTON MIFFLIN 1986 • Levels 1 to 6
HOUGHTON MIFFLIN 1989 • Levels 1 to 5
LITERARY READERS

HOUGHTON MIFFLIN 1993 • Levels 1+ to 5
THE LITERATURE EXPERIENCE
MACMILLAN SERIES R 1983 • Levels 1.2 to 6
MACMILLAN CONNECTIONS 1987 • Levels P to 6
MACMILLAN CAMPANITAS DE ORO 1987 • Levels P to 5
MACMILLAN/McGRAW HILL 1993 • Levels 1.5 to 5.11*
SPANISH EDITION
MACMILLAN/McGRAW HILL 1993 • Levels 1.4 to 5
McGRAW HILL 1989 • Levels P to 6
OPEN COURT 1989 • Levels 1.1 to 6
RIVERSIDE READING PROGRAM 1986 • Levels 2.1 to 6
SCHOLASTIC, INC. 1988, 1983, 1979 • Levels 6 to 8
SCOTT FORESMAN 1987 • Levels 1 to 6
SCOTT FORESMAN 1993 • Levels 1D to 5F
SILVER BURDETT-GINN 1989 • Levels 1 to 6
SILVER BURDETT-GINN 1993 • Levels 1.3 to 6
VERY SIMILAR TO 1989

*Selected levels: 1.5, 2.6, 2.7, 3.8, 3.9, 4.10, 5.11

MATERIALS FOR TEACHERS

CIRC READING MANUAL

READING COMPREHENSION
RC-A1 to A29 (Grade 2 or 3)
RC-1 to 44 (Grade 3)
RC-101 to 134 (Grade 4 or 5)
RC-201 to 222 (Grade 5 or 6)

CIRC WRITING MANUAL

WRITING AND LANGUAGE ARTS LESSONS
(Grades 3-5)
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<tr>
<th>LEVEL 1/2</th>
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<th>LEVEL 4/5</th>
<th>LEVEL 5/6</th>
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<tr>
<td><strong>Annie and the Wild Animals</strong> - Jan Brett</td>
<td><strong>Alexander and the Terrible...</strong> - Judith Viorst</td>
<td><strong>A Bear Called Paddington</strong> - Michael Bond</td>
<td><strong>A Thief in the Village &amp; other stories of Jamaica</strong> - J. Berry</td>
<td><strong>The Door in the Wall</strong> - Marguerite De Angeli</td>
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<td><strong>Beef Stew</strong> - Barbara Brenner</td>
<td><strong>Aunt Flossie's Hats...</strong> - Elizabeth Fitzgerald Howard</td>
<td><strong>Beezus and Ramona</strong> - Beverly Cleary</td>
<td><strong>Amos Fortune</strong>: Freeman - Elizabeth Yates</td>
<td><strong>Dragonwings</strong> - Laurence Yep</td>
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<td><strong>The Carrot Seed</strong> - Ruth Krauss</td>
<td><strong>Ben and the Porcupine</strong> - Carol Carrick</td>
<td><strong>Ben and Me</strong> - Robert Lawson</td>
<td><strong>Anastasia Has the Answers</strong> - Lois Lowry</td>
<td><strong>The Light in the Forest</strong> - Conrad Richter</td>
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<td><strong>The Case of the Cat's Meow</strong> - Crosby Bonsall</td>
<td><strong>Christa McAuliffe</strong> - C. Naden &amp; R. Blue</td>
<td><strong>Charlie and the Chocolate Factory</strong> - Roald Dahl</td>
<td><strong>Anastasia Krupnik</strong> - Lois Lowry</td>
<td><strong>The Lion, the Witch &amp; the Wardrobe</strong> - C.S. Lewis</td>
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<td><strong>Danny and the Dinosaur</strong> - Syd Hoff</td>
<td><strong>The 500 Hats of Bartholomew Cubbins</strong> - Dr. Seuss</td>
<td><strong>The Cricket in Times Square</strong> - George Seldon</td>
<td><strong>Hatchet</strong> - Gary Paulsen</td>
<td><strong>Prince Caspian</strong> - C.S. Lewis</td>
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<td><strong>The Day I Had To Play With My Sister</strong> - C. Bonsall</td>
<td><strong>Good Work, Amelia Bedelia</strong> - Peggy Parish</td>
<td><strong>Everyone Else's Parents Said Yes</strong> - Paula Danziger</td>
<td><strong>Hello, My Name is Scrambled Eggs</strong> - Jamie Gilson</td>
<td><strong>Roll of Thunder, Hear My Cry</strong> - Mildred Taylor</td>
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<td><strong>Little Bear</strong> - Else Holmelund Minarik</td>
<td><strong>Jamaica's Find</strong> - Juanita Havill</td>
<td><strong>The Great Gilly Hopkins</strong> - Katherine Paterson</td>
<td><strong>The House in the Snow</strong> - M.J. Engle</td>
<td><strong>The Silver Chair</strong> - C.S. Lewis</td>
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<td><strong>My Secret Hiding Place</strong> - Rose Greydanus</td>
<td><strong>Julian, Dream Doctor</strong> - Ann Cameron</td>
<td><strong>Misty of Chincoteague</strong> - Marguerite Henry</td>
<td><strong>Misty of Chincoteague</strong> - Marguerite Henry</td>
<td><strong>The True Confessions of Charlotte Doyle</strong> - Avi</td>
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<td><strong>Skateboard Fun</strong> - Stephen Caillan</td>
<td><strong>Miss Nelson Has a Field Day</strong> - Marshall &amp; Allard</td>
<td><strong>The Voyage of the Frog</strong> - Gary Paulsen</td>
<td><strong>The Voyage of the Frog</strong> - Gary Paulsen</td>
<td><strong>Voyage of the &quot;Dawn Treader&quot;</strong> - C.S. Lewis</td>
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<td><strong>Three By The Sea</strong> - Edward Marshall</td>
<td><strong>Molly's Pilgrim</strong> - Barbara Cohen</td>
<td><strong>PLEASE NOTE: Books are not included. Grade levels for novels are approximate. We suggest that teachers review them for instructional level. If your district's adoption is not listed, call us to see if it is under development. It is also possible for us to provide training to enable a district to develop their own CIRC Reading materials. A price list is available on request.</strong></td>
<td><strong>Please contact us at (410) 516-8800.</strong></td>
<td><strong>The Truth About the Moon</strong> - Clayton Bess</td>
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<td><strong>The Witch's Vacation</strong> - Norman Bridwell</td>
<td><strong>Mufaro's Beautiful Daughters</strong> - John Steptoe</td>
<td><strong>The Velveteen Rabbit</strong> - Margery Williams</td>
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<td><strong>Anansi the Spider</strong> - Gerald McDermott</td>
<td><strong>The One in the Middle...Green Kangaroo</strong> - J. Blume</td>
<td><strong>The Magic School Bus at the Waterworks</strong> - J. Cole</td>
<td><strong>Anastasia Has the Answers</strong> - Lois Lowry</td>
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<td><strong>The Egyptian Cinderella</strong> - Shirley Chimo</td>
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