

2000

Using technology to support the implementation of vocabulary and comprehension strategies

Lisa Beames
University of Northern Iowa

Copyright ©2000 Lisa Beames

Follow this and additional works at: <https://scholarworks.uni.edu/grp>



Part of the [Curriculum and Instruction Commons](#), and the [Language and Literacy Education Commons](#)

Let us know how access to this document benefits you

Recommended Citation

Beames, Lisa, "Using technology to support the implementation of vocabulary and comprehension strategies" (2000). *Graduate Research Papers*. 322.

<https://scholarworks.uni.edu/grp/322>

This Open Access Graduate Research Paper is brought to you for free and open access by the Student Work at UNI ScholarWorks. It has been accepted for inclusion in Graduate Research Papers by an authorized administrator of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

Using technology to support the implementation of vocabulary and comprehension strategies

Abstract

This project is a workshop intended to enhance teacher knowledge of assisting students in comprehending informational text. It is supported by research and maintains the instructional goals of providing participants with not only knowledge of current research, but also provides for the development of age and content appropriate hands-on graphic organizers. Graphic organizers are a strategy that have been documented to hold great potential in improving reading comprehension.

Using Technology to Support the Implementation
of
Vocabulary and Comprehension
Strategies

A Graduate Project

submitted to the

Division of Educational Technology

Department of Curriculum and Instruction

in Partial Fulfillment

of the Requirements for the Degree

Master of Arts

UNIVERSITY OF NORTHERN IOWA

by

Lisa Beames

June, 2000

This Project by: Lisa Beames
Titled: Using Technology to Support the Implementation of Vocabulary and
Comprehension Strategies

has been approved as meeting the research requirement for the Degree of Masters of
Arts.

August 7, 2000
Date Approved

August 7, 2000
Date Approved

August 14, 2000
Date Approved

Sharon E. Smaldino

Graduate Faculty Reader

Leigh E. Zeitz

Graduate Faculty Reader

Rick C. Traw

Head, Department of Curriculum and Instruction

Table of Contents

Abstract	
Introduction	1
Methodology	3
Research Review	
Literature	4
Local Data Analysis	14
Project	17
Conclusions and Recommendations	24
References	27
Appendix	
1. ITBS Analysis	28
2. Diagnostic Reading Assessment	32
3. Sample of Participant Generated Documents	35
A. <u>Netmeeting</u> Discussions	
B. Initial Pair Webs	
C. Visual/Print Graphic Organizers	
D. Multimedia Organizers	
E. Evaluations	

Abstract

This project is a workshop intended to enhance teacher knowledge of assisting students in comprehending informational text. It is supported by research and maintains the instructional goals of providing participants with not only knowledge of current research, but also provides for the development of age and content appropriate hands-on graphic organizers. Graphic organizers are a strategy that have been documented to hold great potential in improving reading comprehension.

I. Introduction

This project, *Using Technology to Support the Implementation of Vocabulary and Comprehension Strategies*, details the instructional development of a workshop that serves as an introduction to the use and creation of visual and multimedia graphic organizers. “Using Technology to Support the Implementation of Vocabulary and Comprehension Strategies” is designed to support the long-range goal of New London Community School District Comprehensive School Improvement Plan, which states that students will improve their ability to comprehend informational text especially in the content areas. This goal was developed through community, staff, and student input and serves to focus the district on the ultimate mission of the district, continuously increasing and improving student achievement.

The initiation of the goal, and thus, this project is based on recent research findings of Knuth and Jones (1991), Braunger and Lewis (1997), Billmeyer, (1998) and most recently, the National Reading Panel Report (National Institute of Child Health and Human Development, 1999), as well as local data analysis in relationship to the research findings. This supports the importance of the implementation of such strategies into a student’s skill-base. Additionally this project supports the national research of Sparks and Hirsh (2000), Pearson (Cited in Diamond and Mandel, 1997), and Joyce and Showers (1995), and local findings that indicate the professional skill-base or capacity of the teacher is a key factor in a student’s academic achievement.

The enhancement of our staff’s capacity to understand, model, and implement the use of visual and multimedia graphic organizers is key to the successful attainment of our

goals. Technology serves as a powerful tool through which our teachers' current knowledge base can be expanded in an active, hands-on environment while additionally developing age-appropriate, strategy-based instructional materials. Beyond these factors, the workshop provides motivation and cross-level collegiality not afforded during the academic year.

Terms key to this project are:

- ◆ **Comprehension:** the creation of meaning by making connections between what one already knows and “new” information presented in text.
- ◆ **Graphic Organizer:** A pictorial, typographical, graphic, and/or structural representation whose purpose is to organize and convey information
- ◆ **House File 2272:** A house file that subsequently became law and mandates that K-12 schools develop a plan for continued educational improvement through community identification of key long-range goals and the consolidation of funding sources.
- ◆ **Metacognition:** A reader's ability to think about and to control his thinking process before, during, and after reading.
- ◆ **Prior Knowledge:** The content knowledge and personal experiences the reader brings to the learning or reading task.
- ◆ **Story/Text structure:** The organizational pattern that the author employs to express his ideas
- ◆ **Vocabulary:** Terminology the author uses to express ideas and concepts.

II. Methodology

This project derives from a review of pertinent research on reading comprehension including the findings of Knuth and Jones (1991), Braunger and Lewis (1997), Billmeyer, (1998) and the National Reading Panel Report (2000) Additionally, research pertaining to effective staff development was reviewed. This included the work of Sparks and Hirsh (2000), Pearson (Cited in Diamond and Mandel, 1993), and Joyce and Showers (1995).

Following the review of cited research, an analysis of local data was completed. This analysis included a review of student achievement as reflected through Iowa Tests of Basic Skills (ITBS), as well as Iowa Tests of Educational Development (ITED). Scores from vocabulary and comprehension subtests were plotted against score in math problem solving or quantitative thinking, science, and social studies. Additionally, an analysis of current teacher capacity in the teaching of reading comprehension was completed through a review of preservice and inservice certification hours in courses that supported the instruction of reading.

From this analysis, a series of staff development activities that will occur over the next year and beyond were developed. This project was one such activity. As is generally known, and as is now mandated through House File 2272, technology must be used to support the long-range goals of a district. Technology is best used when appropriate and to meet an instructional goal. Armed with this knowledge, the research indicators and the analysis findings related to teacher capacity and student achievement, this project was developed to provide an opportunity through the use of technology for teachers to

increase their knowledge of teaching reading comprehension, while specifically focusing on the use and creation of graphic organizers.

Literature Review

The volume of research available pertaining to reading comprehension and staff development is extensive. Literature reviewed focused on studies that analyzed and/or applied the findings of numerous other validated research studies to date. This literature was also recognized within the area of study as key research on the current status of reading instruction and/or staff development. Literature reviewed pertaining to reading comprehension focused on changes in reading instruction, characteristics of good readers, systems key to reading comprehension, the teaching of non-fiction reading skills, and effective methods of critical reading skills. Literature reviewed pertaining to staff development analyzed the research demonstrating a relationship between teacher capacity and student achievement and current perspectives for changes in staff development pertaining to reading instruction.

Reading Comprehension

Knuth and Jones (1991) provide an overview of the changes in reading instructions over the past thirty years. They describe the key changes based on theory, goals and methodology of instruction. Prior to 1970 reading was viewed in a very behaviorist perspective. The goal of reading was to master isolated facts and skills and this was thought to be best accomplished through the mechanical decoding of words and rote memorization. Today, reading has come to be viewed in a cognitive perspective which sees the goal of reading as the construction of meaning and the self-regulation of

learning. “Comprehension results from an interaction among the reader, the strategies the reader employs, the material being read and the context in which reading takes place” (Knuth and Jones, 1991, p. 2).

Knuth and Jones (1991) also cited key characteristics of poor and successful readers. Poor readers think that understanding occurs from decoding the word correctly and use strategies such as rote memorization, rehearsal, and simple categorization. These readers do not think strategically about how to read something or how to solve a problem. They tend to have relatively low self-esteem and see success and failure as the result of luck or teacher bias. In reverse, successful readers understand that they must take responsibility for construction of meaning using their prior knowledge. They develop a repertoire of reading strategies, organizational patterns, and genre. They think strategically, plan and monitor their comprehension and revise their strategies accordingly. They have strategies for what to do when they do not know what to do. They demonstrate self-confidence and view success as the result of hard work and efficient thinking.

A final finding of Knuth and Jones (1991) noted that approaches that teach reading as thinking (strategic reading) need time to develop so that teachers can adopt new beliefs, experiment with research-based methods, and refine new practices. This suggests that schools need to provide (a) sustained staff development programs which provide mentoring, coaching, and (b) environments that support experimentations and risk-taking (p 5).

Braunger and Lewis (1997) elicited twelve knowledge base statements pertaining to reading and its instruction. These statements support the review of Knuth and Jones

(1991) and also expound upon the systems crucial to the comprehension of texts. Four statements key to understanding the “comprehension “ of reading include:

1. Reading is a construction of meaning from text. It is an active, cognitive, social, cultural, and affective process. Reading is not a passive act in which readers receive an author’s message. Active readers are at the center of the process; it is their cognitive and linguistic efforts that result in personal constructions of meaning as they interact with a text. Each construction is unique because readers have different backgrounds, experiences, and purposes for reading. This understanding teaches us to expect variation in comprehension and reader response.
2. Making sense of print involves four systems: semantic, syntactic, graphophonic, and pragmatic. Reading is a problem-solving process focused on both the author’s message and the reader’s personal and sociocultural interpretation. It is clearly a complicated endeavor. During reading, four major cueing systems are involved: semantic, syntactic, graphophonic, and pragmatic. Each system has its function and its place in relation to the other systems and all must be available for comprehension to occur. The semantic system is at the core of the reading process. Without it, reading would be purposeless nonsense. The semantic system is far more than word meanings. It is a network of conceptual knowledge developed through language and real-world experience, with meaning shaped by readers’ backgrounds. The syntactic, or grammatical system, is the structure of language and the interrelationships of words, sentences, and paragraphs. The

graphophonic system refers to the sound/symbol knowledge that readers have about the marks on a page. The pragmatic system takes into account the context in which language occurs. Language does not exist outside of a particular context. In fact, the other three-cueing systems just described depend on the context to determine how they are used and the relationships among them. To understand and better use the pragmatics unique to each type of written material, students must have opportunities to experience a range of texts.

3. While readers vary in their use of strategies and cues, the proficient reading process is the same for all readers. Readers of all ages engage in the same process of making sense as they interact with print. Using background knowledge and experience to guide them, they use language cues and problem-solving strategies to construct meaning. Teachers must have a clear understanding of this proficient reading process if they are to move all students toward that goal. (p 28)

Continuing study about the construction of meaning has been recently detailed by Billmeyer (1998), who cited five premises that are basic to the teaching of non-fiction reading skills. These include:

1. The reader constructs meaning by making what he thinks is a logical, sensible connection between the new information he reads and what he already knows about the topic.
2. Billmeyer cited Vacca and Vacca (1993), stating, “the single most important variable in learning with texts is a reader’s prior knowledge”

3. How well a reader comprehends a text is also dependent on metacognition. Students who have learned metacognition skills can plan and monitor their comprehension, adapting and modifying their reading accordingly.
4. Reading and writing are integrally related. Both involve generating ideas, organizing them into a logical order, drafting them a number of times until they make sense, and then revising them as needed.
5. Learning increases when students collaborate in the learning process.
Learning is a socially interactive process. (p. 2)

This alignment of findings between Knuth and Jones (1991), Baunger and Lewis (1997), and Billmeyer (1998) are all supported in the most recent encompassing research pertaining to reading instruction cited in the National Reading Panel Report (NICHD, 1999).

The most recent and the most far-reaching research findings are from the National Reading Panel Report (NICHD, 1999). In 1997, Congress asked the “Director of the National Institute of Child Health and Human Development in consultation with the Secretary of Education, to convene a national panel to assess the status of research-based knowledge, including the effectiveness of various approaches to teaching children to read” (p 4). This panel was comprised of 14 individuals, including leading scientists in reading research, representatives of colleges of education, reading teachers, educational administrators, and parents.

The key charge to the National Reading Panel was to determine “how” critical reading skills are most effectively taught and what instructional methods, materials, and

approaches are most beneficial for students of varying abilities. This report involved the delineation of expansive research studies and followed a very detailed criteria process for each topic. It provided the most detailed and current analysis of research findings pertaining to reading instruction and in relationship to this project specifically to the research in reading comprehension instruction.

This report stated that the analysis of the National Research Council Committee, which produced Preventing Reading Difficulties in Young Children in 1998, was taken into account and served as the foundational work for this research (par. 7). From this prior work, three areas of focus were identified. These areas included alphabetics, fluency, and comprehension. To these topics were later added teacher preparation and comprehension strategies instruction, teacher education and reading instruction, and computer technology and reading instruction. A progress report, titled the National Reading Panel Report was submitted to Congress in February 1999.

In light of the intent of this project, the National Reading Panel Report (NICHHD, 1999) cited three predominant themes in the research on the development of reading comprehension skills. With each it also cites findings and instructional implications. These are elaborated below:

1. Reading comprehension is a complex cognitive process that cannot be understood without a clear description of the role that vocabulary development and vocabulary instruction play in the understanding of what has been read. Instructional implications concluded include:
 - a. Vocabulary should be taught both directly and indirectly.

- b. Repetition and multiple exposures to vocabulary items are important.
 - c. Learning in rich contexts, incidental learning, and use of computer technology all enhance the acquisition of vocabulary.
 - d. Direct instruction should include task restructuring as necessary and should actively engage the student.
 - e. Finally, dependence on a single vocabulary instruction method will not result in optimal learning.
2. Comprehension is an active process that requires an intentional and thoughtful interaction between the reader and the text. The types of instruction showing the greatest potential in attaining such a process include the following:
- a. Comprehension monitoring, where readers learn how to be aware of their understanding of the material;
 - b. Cooperative learning, where students learn reading strategies together;
 - c. Use of graphic and semantic organizers (including story maps), where readers make graphic representations of the material to assist comprehension;
 - d. Question answering, where readers answer questions posed by the teacher and receive immediate feedback;
 - e. Question generation, where readers ask themselves questions about various aspects of the story;

- f. Story and text structures, where students are taught to use the structure of the story or text as a means of helping them recall story content in order to answer questions about what they have read; and,
 - g. Summarization, where readers are taught to integrate ideas and generalize from the text information.
 - h. Additionally, in general, the evidence suggests that teaching a combination of reading comprehension techniques is the most effective.
3. The preparation of teachers to better equip students to develop and apply reading comprehension strategies to enhance understanding is intimately linked to students' achievement in this area.
- a. Studies indicated clearly that in order for teachers to use strategies effectively, extensive formal instruction in reading comprehension is necessary, preferably beginning as early as preservice.

Staff Development

Sparks and Hirsh (2000) state, "A growing body of research shows that improving teacher knowledge and teaching skills is essential to raising student performance. Students spend the vast majority of their time in school either interacting in some way with teachers or working under teachers' direction. What teachers know and can do directly affects the quality of student learning" (par. 5). They continued to cite three research studies which support these statements. These include: Ferguson, Harvard

University; Bain and Company, Boston; Armour-Thomas, Clay, Domanico Bruno & Allen, New York.

A Texas study of 900 districts conducted by Ronald Ferguson of Harvard University (cited in Sparks and Hirsh, 2000) found that teacher expertise as measured by teacher education, licensing examination scores, and experience explains 40 percent of the difference in student achievement in reading and mathematics. Additionally Ferguson noted that teacher quality explains most of the gap in achievement between African-American and white.

Similarly, a Boston study conducted by Bain and Company (cited in Sparks and Hirsh, 2000) found that students of the top-third teachers produced gains on math tests that exceeded the national median while the bottom third showed virtually no growth.

Finally, Armour-Thomas, Clay, Domanico, Bruno, & Allen (cited in Sparks and Hirsh, 2000) conducted a study of schools in New York City found that differences in teacher qualifications accounted for 90 percent of the variation in student achievement in reading and mathematics.

These studies supported the statement of Duffy (cited in NICHD, 2000) He concluded:

- It takes time and ongoing monitoring of success to evolve readers into becoming good strategy users. Helping teachers will require a significant change in how teacher educators and staff developers work with teachers and what they count as important about learning to be a teacher. Current practices that require teachers to successfully complete university course work, to attend mandated half-day in-service programs, or to be 'trained' in the 'right way' to teach and then be held

accountable for that encourage teachers, like the children ... to learn only the labels of professional knowledge without learning how to be strategic themselves. Such practices must be replaced by teacher education/staff development experiences that account for (1) the complexity involved in teaching students to be strategic and for (2) the creative adaptations teachers must make as they deal with that complexity. (p. 46)

Pearson (cited by Diamond and Mandel, 1997) during a research analysis on reading instruction for the state of California adds to this by stating, "So much has been learned about reading and literacy recently that both preservice educators and those already teaching will need up-to-date information on best practices. The key to improving literacy instruction in California is professional development and teacher preparation" (p. 2). This is transferable to a national scale.

Further review of staff development literature showed that Joyce and Showers (1995) report that only 5% of traditional professional development including workshops with a lecture format, classes, conferences, reading books, and journal articles ever results in classroom implementation. In reverse, they also found that implementation can skyrocket to over 90% when teachers have the opportunity to direct their learning and professional growth. Professional development in the teaching of literacy, particularly reading, has traditionally followed the same routes that tend to reinforce current practice rather than change it. To reverse this trend all teachers must view themselves and be viewed as teachers of reading.

According to Sparks and Hirsh (2000):

Staff development helps prepare teachers for the complexities of educating the millennial generation with the advanced skills and knowledge they will need for the unknown future. It helps teachers enhance their knowledge of content so they are better able to answer students' questions, enliven lessons, and help students solve problems. It expands teachers' repertoire of instructional skills so they can determine the best method to match an individual student's specific needs and helps principals and other administrators learn new ways to lead and inspire. In addition, staff development can encourage all of the school's educators to adopt attitudes that support high levels of learning, including the belief that virtually all students can learn at high levels and meet national standards. (p. 4)

Local Data Analysis

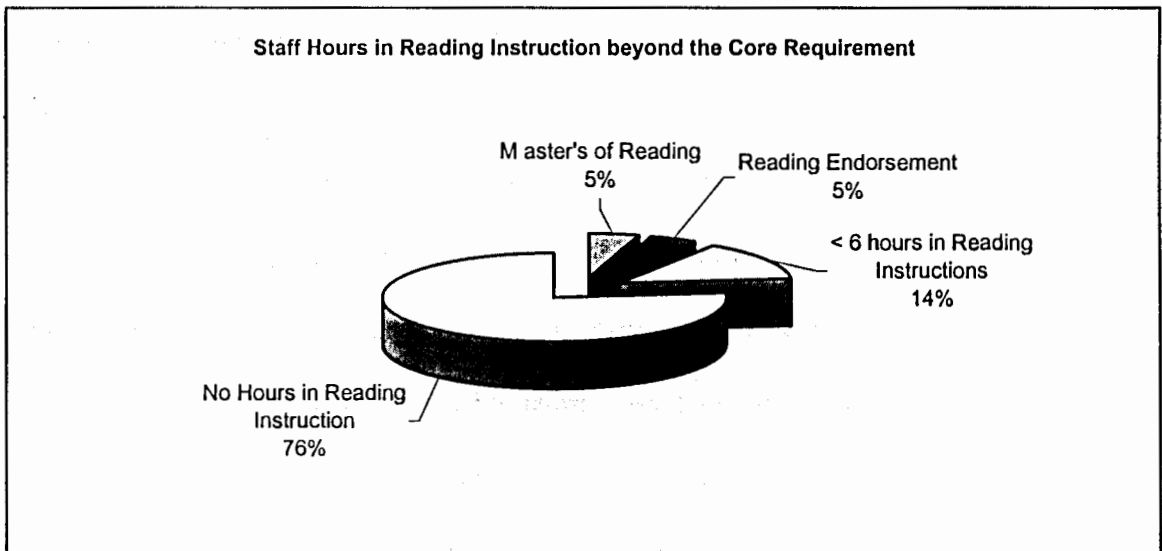
Analysis of the 1999-2000 Iowa Test of Basic Skills and the Iowa Test of Educational Development for the New London Community Schools supported the indicators of vocabulary development and comprehension strategies as key factors in a student's academic achievement. As representative charts in Appendix 1 indicate, students performing low on the vocabulary and comprehension subtest also predominately failed to perform well on the content area subtests of science, math problem solving or quantitative thinking and social studies.

Additionally, staff observations noted during the comprehensive school improvement planning process supported these findings. Staff noted students who struggled with vocabulary and comprehension activities in one subject, also typically struggled in other subjects as well. It was especially noted that at the upper elementary

and middle school levels, when content area texts become exponentially more difficult, students demonstrating a lack of comprehension skills (including poor vocabulary and background knowledge) typically also reflect poor self-esteem. Review of behavior logs at this level showed that over 70% of the behavior infractions filed were derived from students demonstrating poor comprehension skills through cited teacher observations and through the ITBS.

Analysis of K-12 staff certifications shown in Figure 1 indicated that less than 24% or 8 of 43 staff members have more than six hours of reading instruction methods beyond the core requirement. This supports the relationship between a teacher's capacity in relationship to reading comprehension instructions and a student's academic achievement.

Figure 1



Of the eight staff members identified, four teachers maintained a reading endorsement or are currently completing a masters in reading. Out of these eight teachers

with reading background, four of them have less than five years teaching experience. Two teachers will complete a masters programs in reading prior to the 2000-2001 academic year. These teachers are currently assigned as the Title 1/Reading Recovery Teacher and as a second grade classroom teacher. All reading endorsements are at the elementary level with the majority of those endorsement hours focused on the development of skills in teaching students the skills of “learning to read”, not on the development of skills in teaching students the skills of “reading to learn”.

It should be noted that the lower elementary staff has acquired extensive knowledge and implemented appropriate strategies for the increased achievement of students in the areas of alphabetics and fluency. They have also participated and greatly benefited from the current state literacy initiative. The benefits of their increased capacity are indicated through recent Diagnostic Reading Assessment scores (Appendix 2). Our students are demonstrating a marked increase in their ability to “learn to read.” This we deem good.

Two middle school teachers hold between three and six hours of course study in reading beyond the core requirement, while only two high school teachers hold any hours beyond the core requirement. Resoundingly, the majority of our staff lacks the knowledge and thus the skills to teach students to “read to learn.” As documented through research studies cited in Sparks and Hirsh (2000), our student achievement will not increase greatly, if we do not first increase our staff’s capacity to facilitate reading comprehension.

Initial workshop conversations held orally and thru Netmeeting supported the findings of Knuth and Jones (1991) as well as Sparks and Hirsh (2000). These

discussions demonstrated that the participants tended to view reading in the traditional, behaviorist perspective as the mastery of facts and skills, primarily that of decoding and additionally, that the teachers themselves perceived reading as that of a poor reader; reading was the decoding of a word (Appendix 3).

The extensive research analyses of the National Reading Panel Report and the supportive rationale of “Teaching Reading in the Content Areas; If Not Me Then Who?” coupled with the other literature reviewed and the findings of local data analysis serve to support the need for a project that initiates expansion of teacher capacity pertaining to reading comprehension instruction. The identification of graphic organizers as an initial focus of staff development activities derives from several factors. These include: their concreteness, their potential adaptability to both the process of reading and of writing, their versatility as both visual/print or multimedia formats, the subsequent adaptability of all preceding formats to a transferred to a web based format which eliminates time and location dependence, and the ability of graphic organizers to be generated via Microsoft products and Inspiration with relative ease.

III. The Project

Overview

The project reported here, “Using Technology to Support the Implementation of Vocabulary and Comprehension Strategies” supports the previously cited research and has the instructional goal of making participating teachers more aware of the need to consider the factors of reading comprehension when teaching students regardless of the content area in which they teach or age taught. It is intended to make teachers recognize

their role in helping students “comprehend” the content they are teaching. Through the instructional design of this project, participants acquire technical literacy skills while developing immediately applicable hands on instructional activities.

Technology tools used include the use of the Internet for knowledge acquisition, the use of Netmeeting for monitored and focused discussions, and the use of Microsoft Word and PowerPoint for the creation of visual/print and multimedia graphic organizers. This workshop spanned the course of 4 days and met from 8:30-12:30 daily. Six teachers chose to participate. Each could choose to receive a \$50.00 stipend for attending and completing the workshop or could take the workshop for one graduate credit at a cost of \$60.00.

Participants

The six participants of this workshop vary in grade level taught and in experience both in the classroom and technical skills. Five of the participants are employed by New London Community School District. One is a kindergarten teacher with 10+ years of classroom experience. She is very “learning to read” literate and is currently making the transfer from a MAC environment to a PC environment.

Two participants teach at the middle school level and have little preservice experience with reading comprehension instruction. One has taught for 28 years, while the other is in his sixth year of teaching. One teaches math and is basically computer literate though she lacks confidence and the other teaches language arts and maintains moderate technical skills.

The final two participants from New London teach at the high school level. One teaches social studies and just concluded his first year of teaching. He is extremely

computer literate and eager to learn more about assisting students in comprehending his content. The other participant is a resource teacher and also teaches Advanced Placement English. She has taught for over 15 years and has moderate technical skills, but lacks self-confidence.

One participant is employed by Mt. Pleasant Community Schools as a kindergarten teacher. She has taught for over 15 years and has moderate technical skills.

Environment

The workshop will be conducted in an air-conditioned networked lab of twenty PC-based computers and two networked printers, one laser and one inkjet color. There is an LCD panel and a projector available for demonstration. The district maintains licenses for all necessary software, as does Mt. Pleasant, the employment district of one participant. The work environment is informal and strives to maintain an atmosphere where participants' personal desire to learn and attain new knowledge and skill is encouraged and built upon. It is not judgmental of skills; each participant is taken from where he/she is and is supported in his/her venture going as far as possible, both in curricular and technical skills.

Staff Development Goals and Objectives

The following goals have been determined based on the research findings of Knuth and Jones (1991), Braunger and Lewis (1997), Billmeyer, (1998) and the National Reading Panel Report (NICHD, 2000) and analysis of local data.

1. Participants will become more aware of factors affecting a student's ability to comprehend informational text.

- a. All participants will be able to cite and discuss the key factors of vocabulary and prior knowledge while participating in oral workshop discussions.
2. Participants will become more aware of their role in assisting students to comprehending informational text.
 - a. All participants will be able to verbalize their role in assisting students to comprehend text while participating in oral and mediated workshop discussions.
3. Participants will become more aware of the use of graphic organizers as a tool for vocabulary development and prior knowledge activation.
 - a. All participants will be able to verbalize the uses of graphic organizers in assisting students to comprehend text while participating in oral and mediated workshop discussions.
4. Participants will be able to use the Internet to gain knowledge of reading comprehension, vocabulary development, and graphic organizers and to acquire graphics as needed.
 - a. All participants will search the Internet without assistance throughout the workshop while being observed by the facilitator.
 - b. 90% of the participants will be able to save a web-based image to a local machine all of the time.
5. Participants will be able to use Microsoft Netmeeting to participate in mediated discussions.

- a. All of the participants will be able to open and log into a facilitator-sponsored chat after one introductory session.
6. Participants will be able to use Microsoft Word and PowerPoint to create visual/print and multimedia graphic organizers.
- a. All participants will be able to create, open and save a file 100% of the time when completing the instructional goals.
 - b. All of the participants will be able to format a document including font, color, and bullets 100% of the time when completing the instructional goals.
 - c. All of the participants will be able to create tables, split, merge and format cells, add and delete rows and columns 80% of the time when completing the instructional goals.
 - d. 80% of the participants will be able to use WordArt to create text of varied direction and shape all of the time.
 - e. All of the participants will be able to insert graphics from clipart and from files all of the time when completing the instructional goals
 - f. All of the participants will be able to insert and format AutoShapes 100% of the time when completing the instructional goals.
 - g. All of the participants will be able to insert and format sounds 80% of the time when completing the instructional goals.
 - h. All of the participants will be able to animate PowerPoint slides 100% of the time when completing the instructional goals.

7. Participants will be able to create various graphic organizers appropriate to their curricular content and instructional level.
- a. All participants will create at least four different print-formatted graphic organizers that are applicable to their content and grade-level. At least one graphic organizer will be representative of a before, during, and after reading activity.
 - b. All participants will create at least five different multimedia-formatted graphic organizers (vocabulary-based) that are applicable to their content and grade-level.

Workshop Timetable

Day 1	<ul style="list-style-type: none"> ◆ Introduction to the Workshop. ◆ Discussion of National Reading Panel Report findings on teaching reading comprehension. ◆ <u>NetMeeting</u> chat focused on what was known about teaching reading comprehension. ◆ The creation of a web of what two participants knew about teaching reading comprehension using <u>Microsoft Word</u>. ◆ An exploration of web sites about teaching reading, with lessons for teaching reading, and about graphic organizers. ◆ Individual creation of visual/print graphic organizer that met each participants instructional needs. Based on print materials available on site and from web sites presented.
-------	---

Day 2	<ul style="list-style-type: none">◆ Review of day one via a <u>Netmeeting</u> discussion◆ Student presentations of visual/print graphic organizers created on Day One◆ Introduction of “Teaching Reading in the Content Areas: If Not Me Than Who?”◆ Review of Graphic Organizers presented within cited text and seen elsewhere.◆ Review of the use of <u>PowerPoint</u>◆ Presentation of pre-designed templates to promote vocabulary acquisition.◆ Discussion◆ Participants create at least four <u>PowerPoint</u> vocabulary templates/slides

Day 3	<ul style="list-style-type: none"> ◆ Student presentations of <u>PowerPoint</u> slides created on Day Two. ◆ Discussion of functionality of templates. ◆ Discussion of final assignment <ul style="list-style-type: none"> ○ Creation of at least at least four different print-formatted graphic organizers that are applicable to their content and grade-level. At least one graphic organizer will be representative of a before, during, and after reading activity. ○ All participants will create at least five different multimedia-formatted graphic organizers (vocabulary-based) that are applicable to their content and grade-level. ◆ Student work time---facilitator available for assistance
Day 4	<ul style="list-style-type: none"> ◆ Review of assignment ◆ Student work time---facilitator available for assistance ◆ Student presentations of completed activities (Some remain in process) ◆ Debriefing ◆ Evaluation of Workshop

IV. Conclusions

Through the review of research and local data analysis a key insight has developed; most teachers lack awareness that they do not understand how to teach for

increased student comprehension. It is not a part of their schema and, as with students, we must teach vocabulary and develop prior knowledge.

This insight supports the findings of Knuth and Jones (1991) and Sparks and Hirsh (2000). The participants tended to view reading in the traditional, behaviorist perspective as the mastery of facts and skills, primarily that of decoding. Additionally, the teachers themselves perceived reading as that of a poor reader; decoding of a word, not the construction of meaning. As Sparks and Hirsh (2000) noted, teachers tend to perceive and teach in the way that they were taught. Through teacher observation and written evaluation it was noted that teachers once awakened to a documented research-based instructional need will strive, to resolve that need (Appendix 3).

Recommendations

With the improvement of students' ability to comprehend informational text in the content areas (a key goal of the New London Community School District), this workshop needs to be offered again to further enhance the skills of other staff members. The participants of this workshop are representative of the entire faculty. As previously cited research reports, student achievement is directly related to the knowledge and skill of the teachers. Students will not improve their ability to comprehend informational text in the content areas if we do not improve our teacher's ability to aid them. Teachers will not change the ways in which they instruct or better facilitate learning if they do not have the knowledge and they do not visualize an immediate applicable purpose or method. This workshop teaches them to do both. It enhances the knowledge and skills of teachers while also giving them an immediate and applicable tool to implement the change. It can

easily be adapted to various time structures such as two hours over a period of weeks or even on a more expanded and in depth level over an entire year.

It is also recommended that the workshop continue to seek participation from varying grade levels. This not only builds collegiality, but also provides for learning of strategies and contents across the grade levels. As Billmeyer (1998) cited about constructing comprehension within students, so too, with teachers; learning takes place through active participation and conversation. They need time to talk, especially across the grade levels.

As with any instructional development project, there is a need to continually improve and fine tune instructional materials. As with anything of today's world, nothing is ever finished but always in process. Further research and advancing technology will cause revisions and adaptations will continually occur.

References

Billmeyer, R. (1998) *Teaching content area reading: If not me than who?*, Aurora, CO: McRel.

Braunger, J., & Lewis, J. P. (1997). *Building a knowledge base in reading*. Portland, OR: Northwest Regional Educational Laboratory's Curriculum & Instruction Series.

Diamond, L. and Mandel, S. (1997) *Building a powerful reading program: From research to practice*. Emeryville, CA [On-line]. Available: <http://www.csus.edu/ier/reading.html> [2000, June 30].

Knuth, R. and Jones, B. (1991) *What does research say about reading?*. Oakbrook, IL: North Central Educational Laboratory [On-line]. Available: http://www.ncrel.org/sdrs/areas/stw_esys/str_read.htm [2000, June 30].

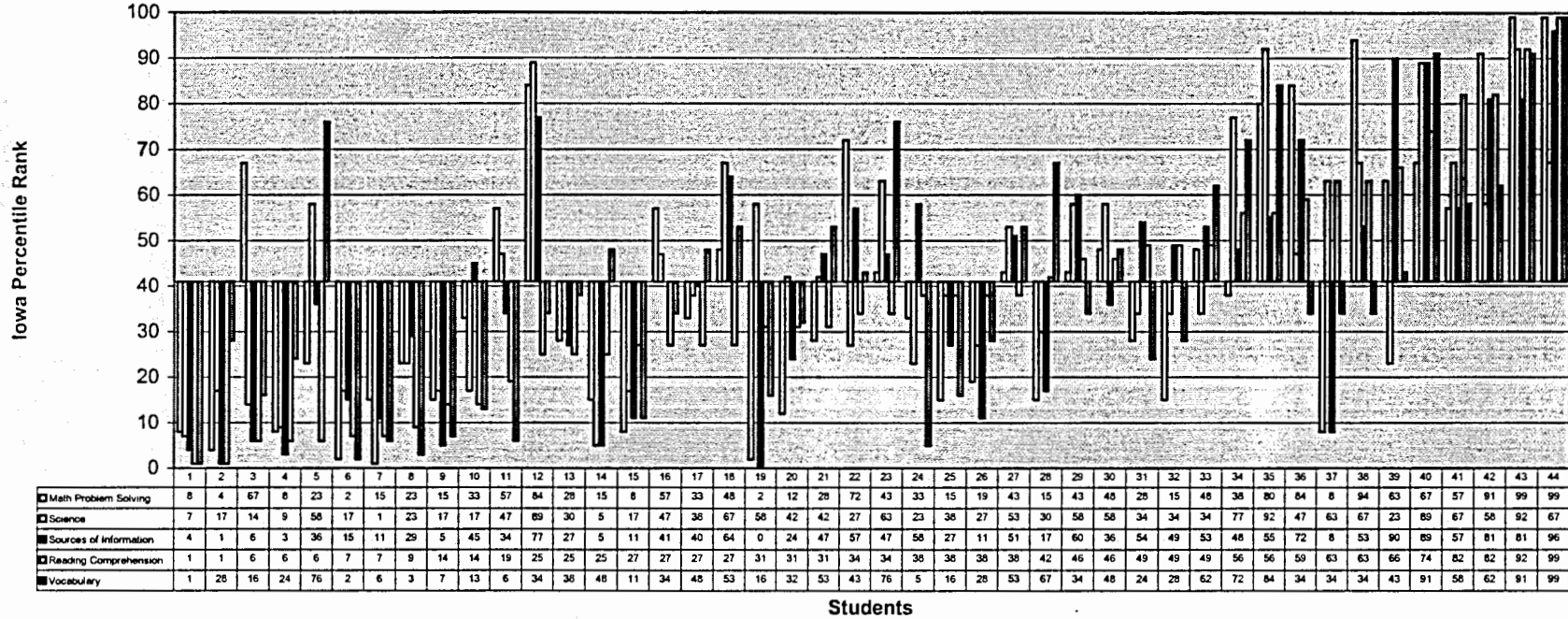
Joyce, B., & Showers, B. (1995). *Student achievement through staff development: Fundamentals of school renewal*. 2nd ed. White Plains, NY: Longman.

National Institute of Child Health and Human Development. (1999). *The national reading panel report*. [On-line]. Available: <http://www.nichd.nih.gov/publications/nrp/method.htm> [2000, June 30].

Sparks, D. and Hirsh, S. (2000). *A national plan for improving staff development*. [On-line]. Available: <http://www.nsd.org/educatorindex.htm> [2000, June 30].

Appendix 1
Representative
Analysis
of
ITBS/ITED
Scores

**Reading Comprehension Comparison to Content Subtests
ITBS
7th Grade**



□ Math Problem Solving

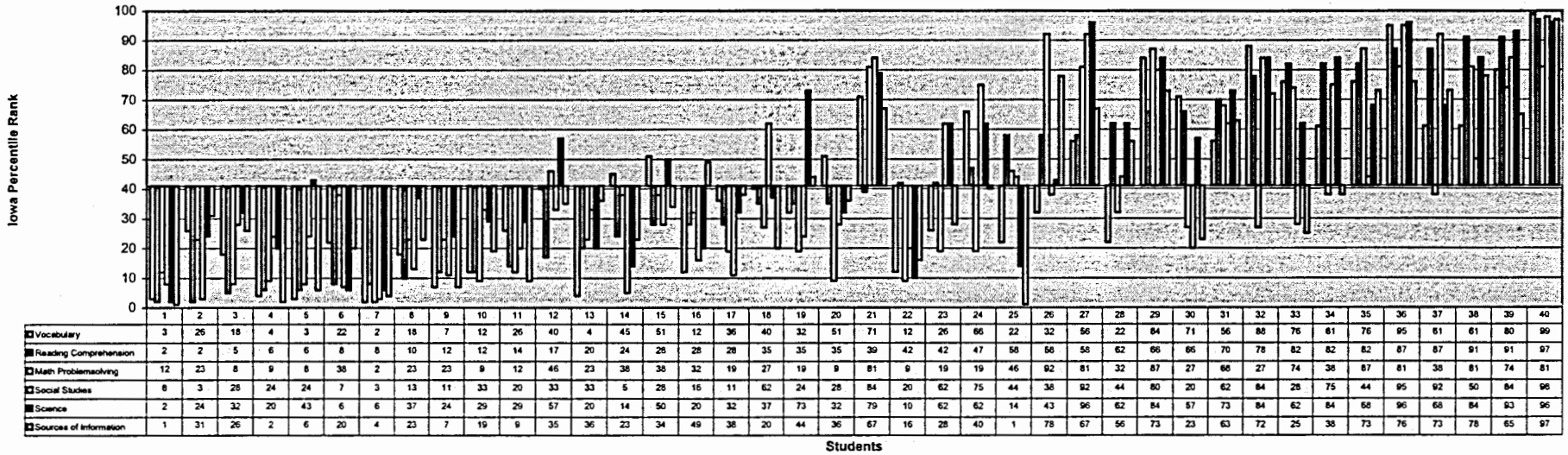
□ Science

■ Sources of Information

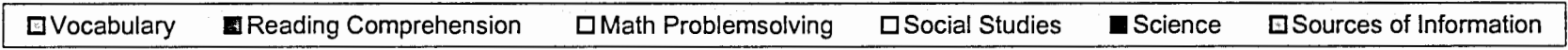
□ Reading Comprehension

■ Vocabulary

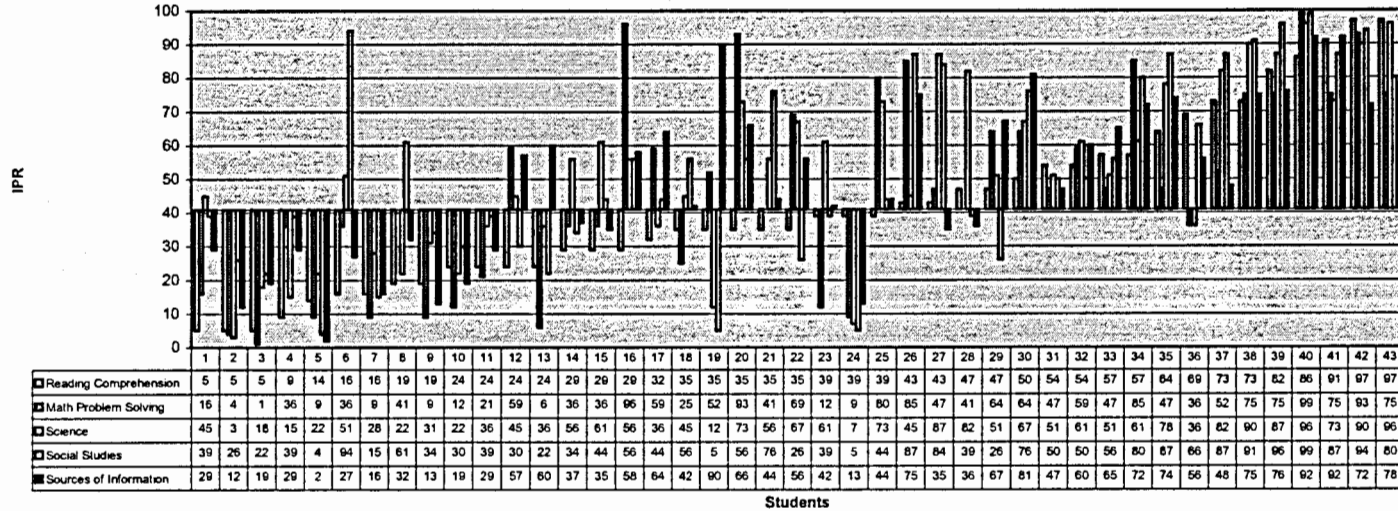
Reading Comprehension Comparison to Content Subtests
ITBS
5th Grade



Students



Reading Comprehension Comparison to Content Area Subtest 6th Grade



Reading Comprehension
 Math Problem Solving
 Science
 Social Studies
 Sources of Information

Appendix 2

Diagnostic Reading Assessment Analysis

Developmental Reading Assessment Data
Clark Elementary School
Spring 2000

(Assessments administered between April 27th and May 11th)

Kindergarten

2 sections – 35 students
18 boys/18 girls

	Below Grade Level	At Graded Level (A-2)	Above Grade Level
Boys	0 Total	8 Total (44%) 1 at Level A 3 at Level 1 4 at Level 2	10 Total (56%) 6 at Level 3 2 at Level 4 1 at 16 1 at 18
Girls	0 Total	2 Total (11%) 2 at Level 2	16 Total (89%) 5 at Level 3 4 at Level 4 2 at Level 6 2 at Level 8 1 at Level 10 1 at Level 18 1 at Level 24

1st Grade

3 sections – 53 students
31 boys/22 girls

	Below Grade Level	At Graded Level (14-16)	Above Grade Level
Boys	10 Total (32%) 1 at Level 2 (IEP) 1 at Level 4 1 at Level 6 (IEP) 3 at Level 8 3 at Level 10 1 at Level 12	9 Total (29%) 3 at Level 14 6 at Level 16	12 Total (39%) 4 at Level 18 3 at Level 20 2 at Level 24 1 at Level 30 2 at Level 40
Girls	1 Total (4%) 1 at Level 10	3 Total (14%) 1 at Level 14 2 at Level 16	18 Total (82%) 2 at Level 18 2 at Level 20 2 at Level 24 1 at Level 28 2 at Level 30 1 at Level 34 3 at Level 38 5 at Level 40

2nd Grade

**2 sections – 38 students
18 boys/20 girls**

	Below Grade Level	At Graded Level (18-28)	Above Grade Level
Boys	1 Total (5%) 1 at Level 10 (IEP)	7 Total (39%) 1 at Level 18 1 at Level 20 5 at Level 24	10 Total (56%) 4 at Level 30 1 at Level 34 2 at Level 38 2 at Level 40 1 at Level 44
Girls	3 Total (15%) 1 at Level 10 (IEP) 1 at Level 14 1 at Level 16	11 Total (55%) 1 at Level 20 6 at Level 24 4 at Level 28	6 Total (30%) 2 at Level 30 3 at Level 40 1 at Level 44

3rd Grade

**2 sections – 35 students
16 boys/19 girls**

	Below Grade Level	At Graded Level (30-38)	Above Grade Level
Boys	1 Total (6%) 1 at Level 18 (IEP)	13 Total (81%) 2 at Level 30 5 at Level 34 6 at Level 38	2 Total (13%) 1 at Level 40 1 at Level 44
Girls	1 Total (5%) 1 at Level 24	13 Total (69%) 1 at Level 30 4 at Level 34 8 at Level 38	5 Total (26%) 2 at Level 40 3 at Level 44

Appendix 3

- A. Netmeeting Discussions
- B. Initial Pair Webs
- C. Visual/Print Graphic Organizers
- D. Multimedia Graphic Organizers
- E. Participant Evaluations

A. Netmeeting Discussions

AA What do you think it takes for kids to understand texts

ss decoding

OO What is decoding?

RR In order to decode, they must have sound understanding. What do we do with weak phonics skill

ss (student)

OO You mean "sound" understanding as in noises, right?

RR I mean they have no basis to sound out words

OO So what is decoding, though?

QQ First they have to know the letters and the sounds they make

RR Right and isn't that phonics and are we not stressing that enough

AA Is it phonics that's catching them up in Middle school or do you think it's other things

PP Decoding is figuring out the letter/sound associations and being able to apply to text.

OO Shouldn't students get phonics in first grade, or whenever they start reading?

RR I find that my students sometimes have so much trouble decoding that they lose all sense of comprehension

PP Phonics shouldn't be the key in middle school. Context clues are important too.

NN Plus, reading text is difficult, they do not want to do anything that takes time. How do we make them succeed, so they want to put forth the effort?

AA Recent DRA's from the elementary show that the students are "Reading" at or above grade level.

AA So maybe motivation is seen as a key to getting them to comprehend

RR then what happens to them when they come to middle school?

QQ Do we stop reading instruction too early?

RR I think so

AA Reading in the DRA's is decoding, fluency, letter recognition, phonemic awareness

PP Could it be we need to teach more strategies for reading nonfiction material?

RR We certainly stop spelling instruction too soon

AA PPPPPPPPPPPPP-- what type of strategies

ss At the middle level, we use context clues to help them understand text, but the biggest problem is that they stop reading.

RR Reading is reading though

OO We **do** stop spelling instruction too soon. I have kids who can't spell anything in 11th grade.

AA What do you mean RR

NN I've been told MS kids have learned what they are going to learn about decoding.

AA Do you believe this is lack of motivation or lack of instruction

R R

If you can read, you can read either nonfiction or fiction... you just might not have the same enthusiasm

S S

*Lol

P P

The DRA tests decoding and comprehension, not letter recognition and phonemic awareness. We have to do different assessments to get those.

A A

Is reading different than comprehending???

O O

no

O O

not to me

R R

Well the kids I have in high school don't exhibit strong reading traits ... like comprehending... but I think some of them are lazy

A A

What strategies do we give kids to comprehend

P P

Reading nonfiction is more difficult than fiction if you don't have the background knowledge for the subject you are working on.

Q Q

Are you feeling you have to teach the basic skills in reading comprehension? Are you teaching the right stuff?

O O

But the purpose of reading nonfiction is that you **learn** the subject by reading

A A

QQ basic skill of comprehension--what do you mean

A A

OO---Where do you see us teaching them to learn to read the subject matter

N N

What causes kids to be lazy? Why do they not get that natural gratification from a job well done?

S S

then what happens to them when they come to middle school?

I think it could be a number of factors, including their extracurricular involvement, the changes that they go through at the middle level, lack of encouragement to read at home . . . we could come up with a ton of reasons

R R

If I knew that, I'd write a book and be rich

O O

I expect my students to be able to read the subject matter when they walk in my door--freshmen on up.

A A

NN--has that been lost in society's ways of needing instant gratification

S S

Let's also remember that not all of our middle level kids become bad readers.

A A

Elementary teachers what do you think about vocabulary instruction

R R

But if they can't read, computers won't work for them either

R R

Vocabulary- absolutely imperative for High School

A A

RR--Agreed--but can we use the computers to help them not by putting them on it, but by creating situations to draw more modes (learning styles) into it.

O O

most of my course content is vocabulary

P P

Vocabulary is built by being read to and reading themselves in the early elementary.

S S

and we continue to read to them at middle school

Q Q

Children are coming to school with lower language skills--they don't understand the spoken vocabulary, so it takes a while to be ready to read vocabulary

Q Q

words they don't understand.

A A

OO What can we do to help them pick up skills in vocabualry and in prior knowledge

AA get them to watch PBS

ss

AA When kids are read to in their early years, they are better readers. True False?

AA

PP QQ-- I just read something about that this morning

PP

ss True

ss

RR Some of our kids aren't read to.

RR

AA But reading to them in later years, does that really help them by the time they get to high school

ss

AA comprehension, motivation, vocabulary development, learning styles,

ss

RR - who knows?

NetMeeting Chat Log Printed 6/27/2000 8:37:45 AM

O O

[private]Hi Chris! --Seth

S S

I think the graphic organizer is a great way to meet many of the issues we talked about yesterday.

R R

I found that I could make something pretty useful in less than 9 hours

O O

[private]I guess I was using a lot of graphic organizers in my classes without knowing it.

S S

The template will definitely come in handy for different projects.

P P

I agree, ss. Any way to help the kids get their thoughts organized should help their comprehension.

O O

I guess I was using a lot of graphic organizers in my classes without knowing it

P P

I have used several graphic organizers in my class too.

S S

It's kinda funny . . . we used to call writing things down in an organized manner "taking notes"

R R

I guess I wasn't making them concise enough. I was including too much info in each cell

N N

I LIKE THIS CHAT ROOM IDEA--BUT THINK IT IS BEST FOR SMALL GROUPS. DO MY CAPS REMIND YOU OF ANYONE?

S S

Stop screaming at me.

Q Q

graphic organizers can be used with lower as well as upper level classes--get as complicated as we want

R R

Now if I can just remember them for longer than this class or without Lisa being in the room

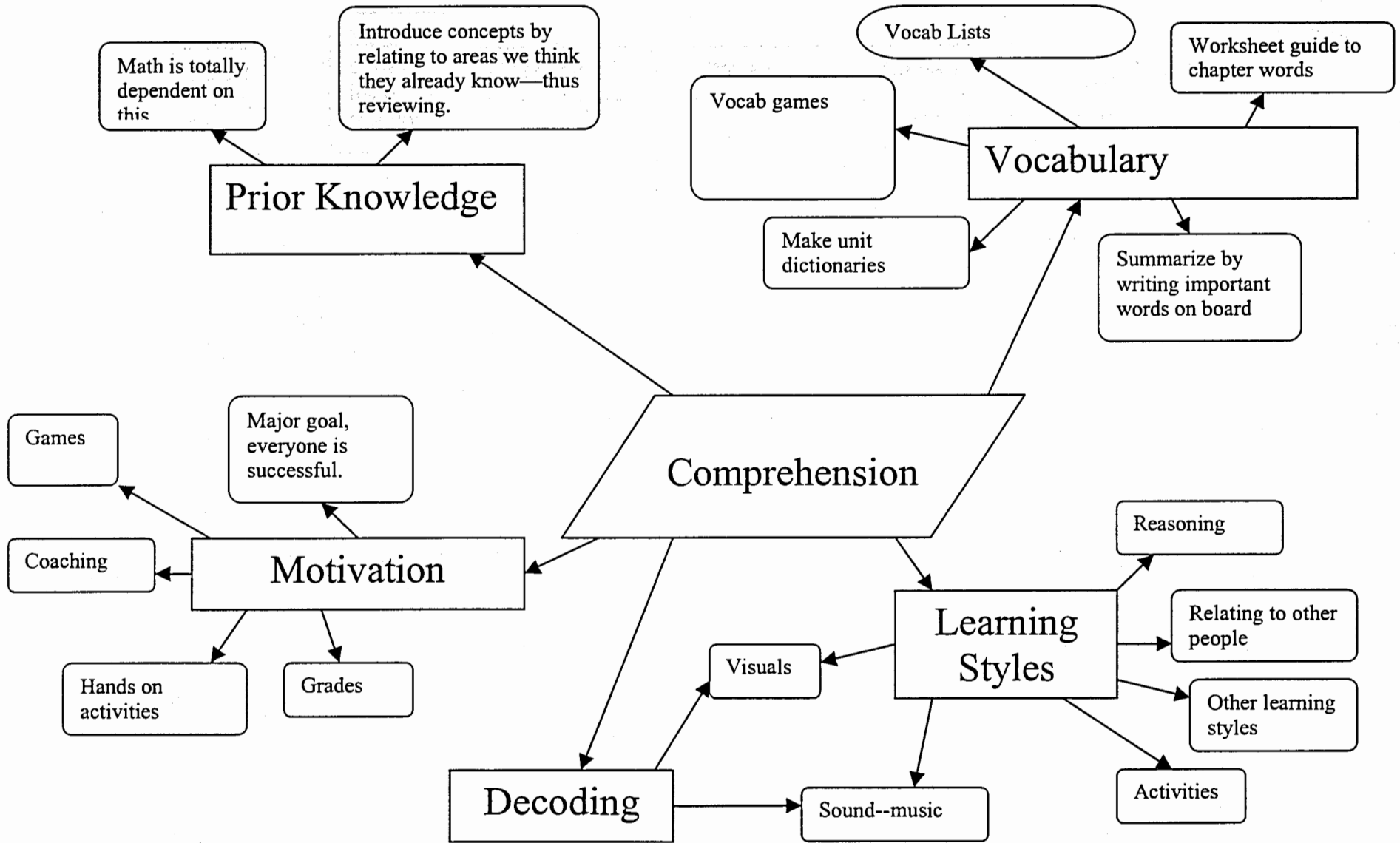
S S

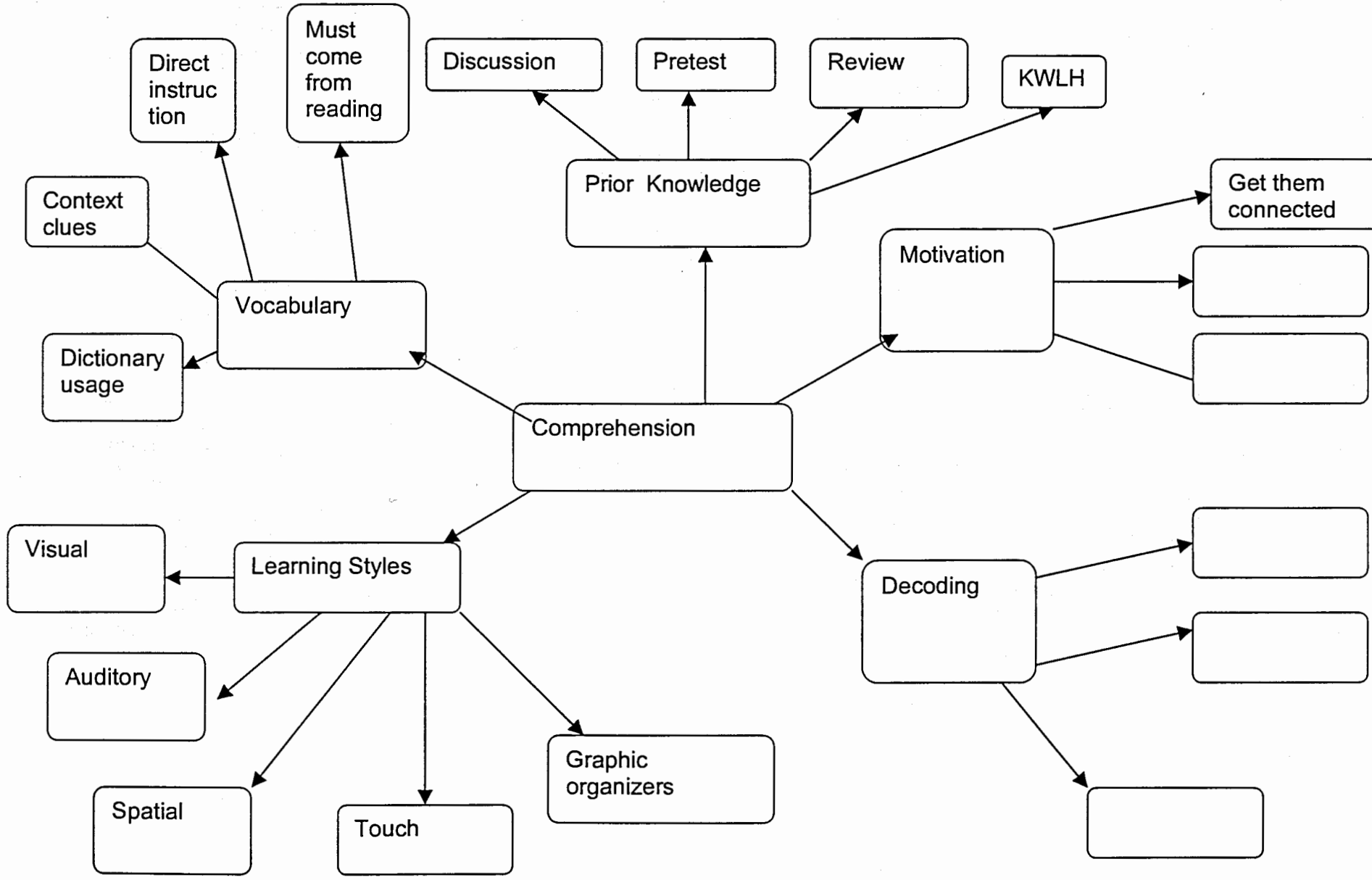
The nice part is you can create a "mini-book" of templates and use them for all sorts of projects.

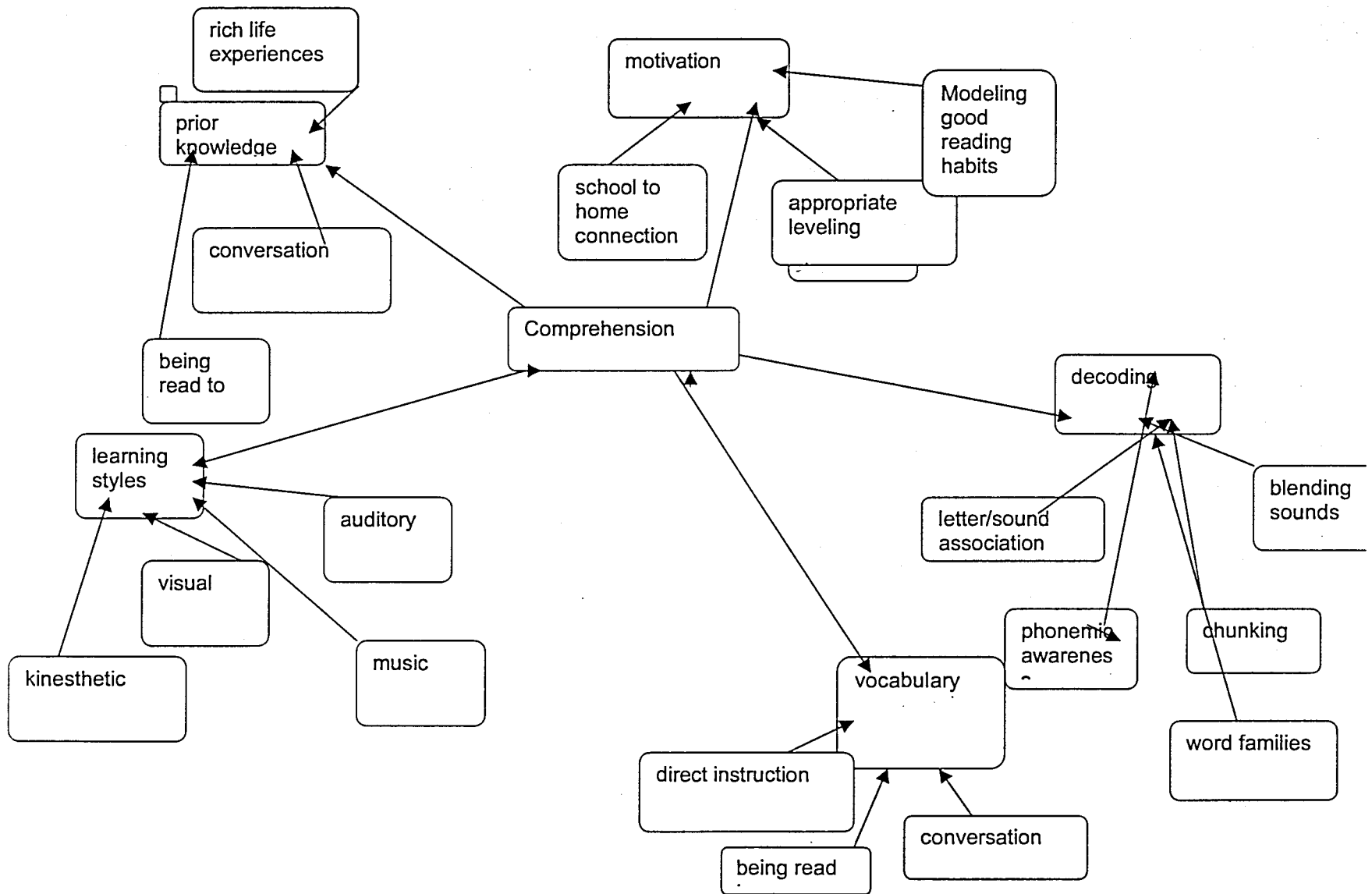
O O

I'd like to lecture and have kids make spider maps as I lecture. My lectures are pretty "concrete sequential."

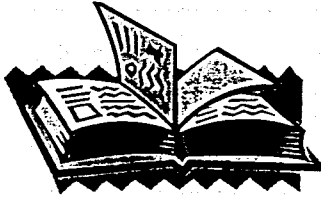
B. Initial Pair Webs







C. Visual/Print Graphic Organizers



Development of the Novel

Even though the Victorian Age was the period when the novel flourished, it developed from a much earlier time. This chart will help us trace its development.

<i>Name of Age</i>	<i>Dates</i>	<i>Identifying characteristics</i>	<i>Interesting Information</i>	<i>Examples</i>
<i>Anglo-Saxon Period</i>				
<i>Middle Ages</i>				
<i>Elizabethan Age</i>				
<i>Seventeenth Century</i>			<i>*Allegory</i>	
<i>Eighteenth Century</i>			<i>*The modern novel is said to have begun with Pamela: Or Virtue Rewarded by Samuel Richardson in 1740</i>	

<i>Name of Age</i>	<i>Dates</i>	<i>Identifying characteristics</i>	<i>Interesting Information</i>	<i>Examples</i>
<i>The Romantic Movement</i>				
<i>The Victorian Age</i>				
<i>The Twentieth Century</i>				



Name: _____

Comparative Politics

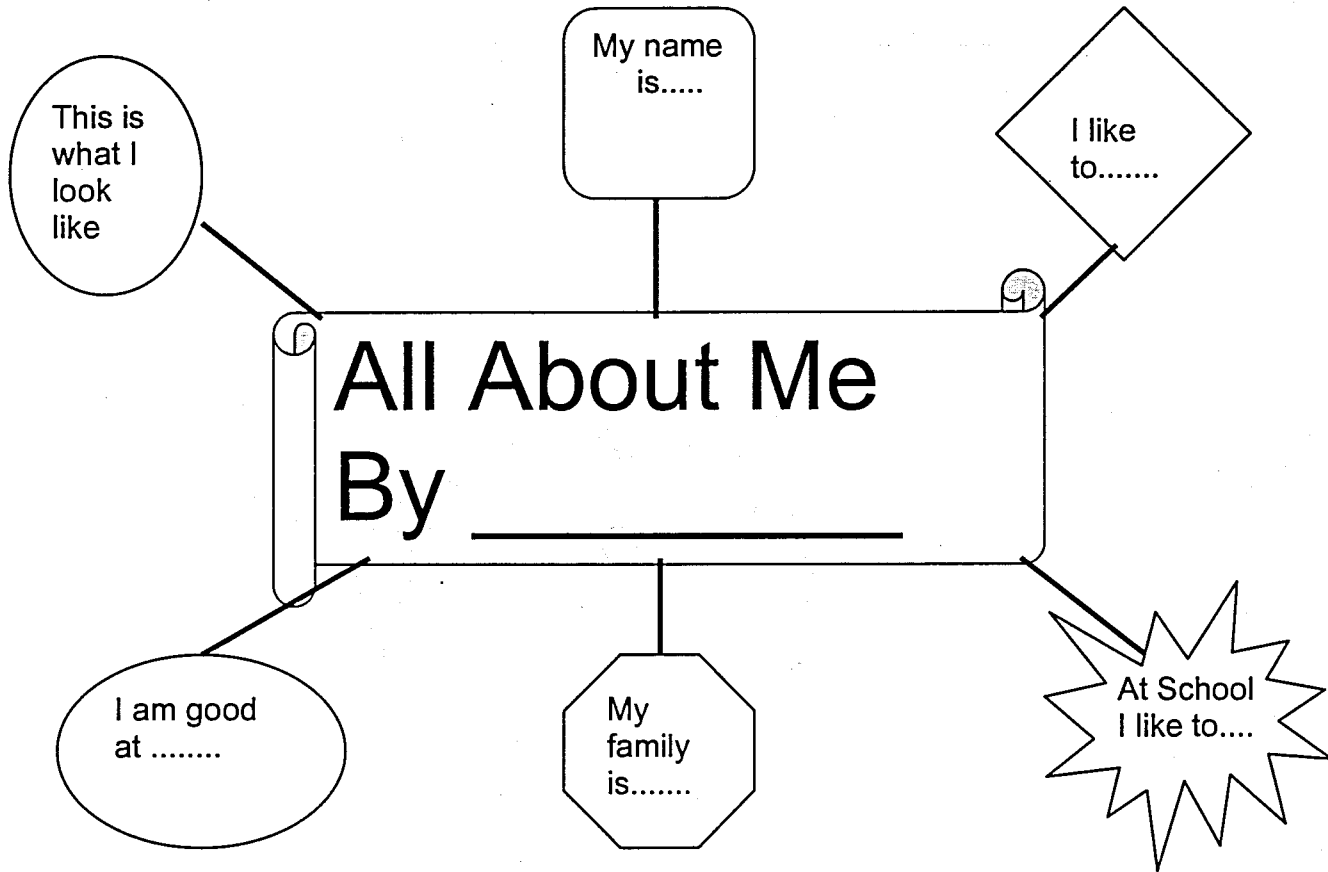
Describe the political systems of the countries listed below by filling in the chart.
Use your textbook, the internet, or your own knowledge to fill in the chart.

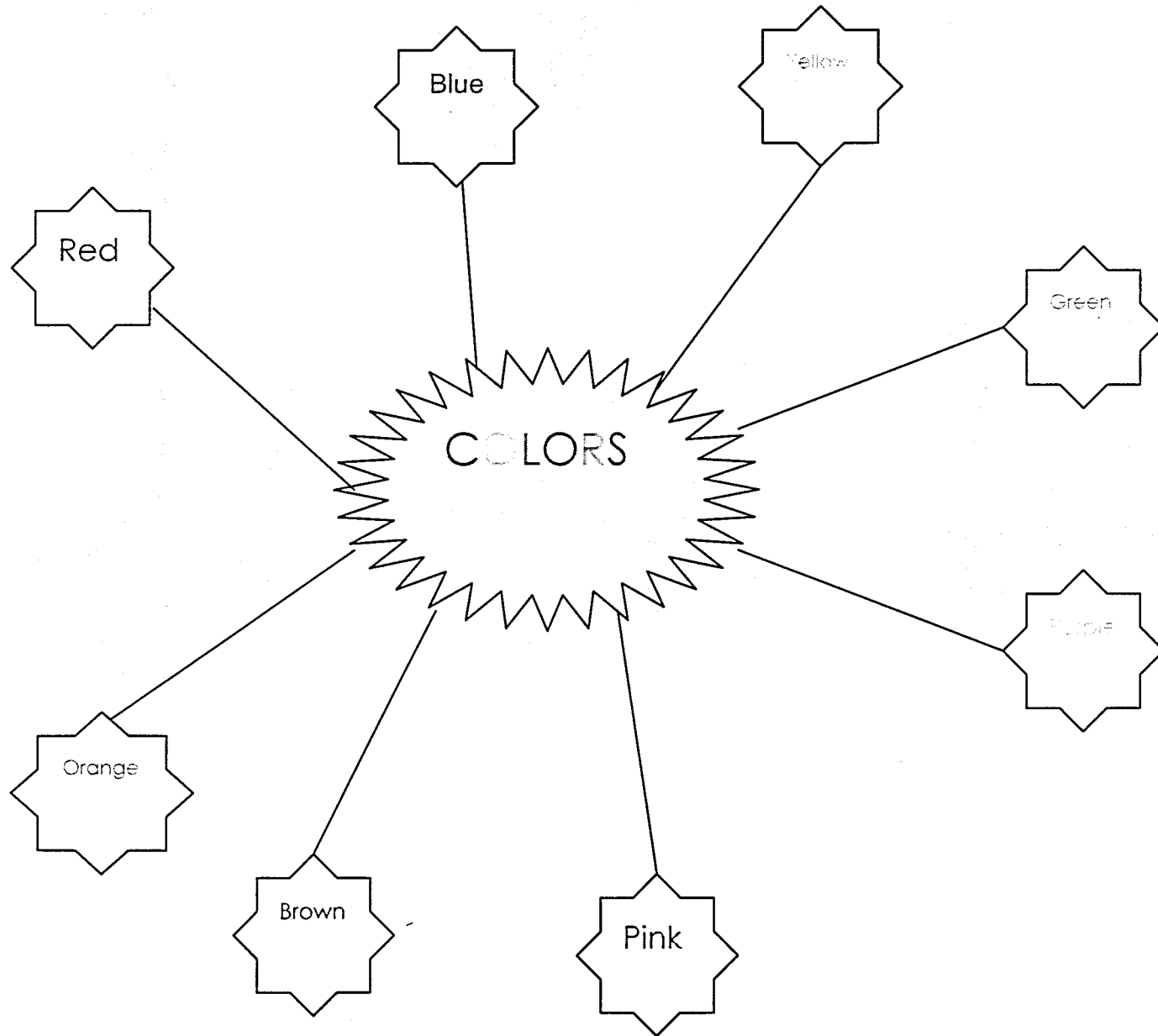
	Unitary, Federal, or Confederate	Presidential or Parliamentary	Executive Branch	Legislative Branch	Judicial Branch	Parties	Political Participation
Britain							
France							
Germany							
Japan							
Mexico							
Russia							
United States							

Name(s): _____

Economic Systems Ch. 1 §4

	Capitalism	Socialism	Communism
What ideas is the system based on?			
Who owns the means of production, distribution, and exchange?			
Two examples:	1. 2.	1. 2.	1. 2.

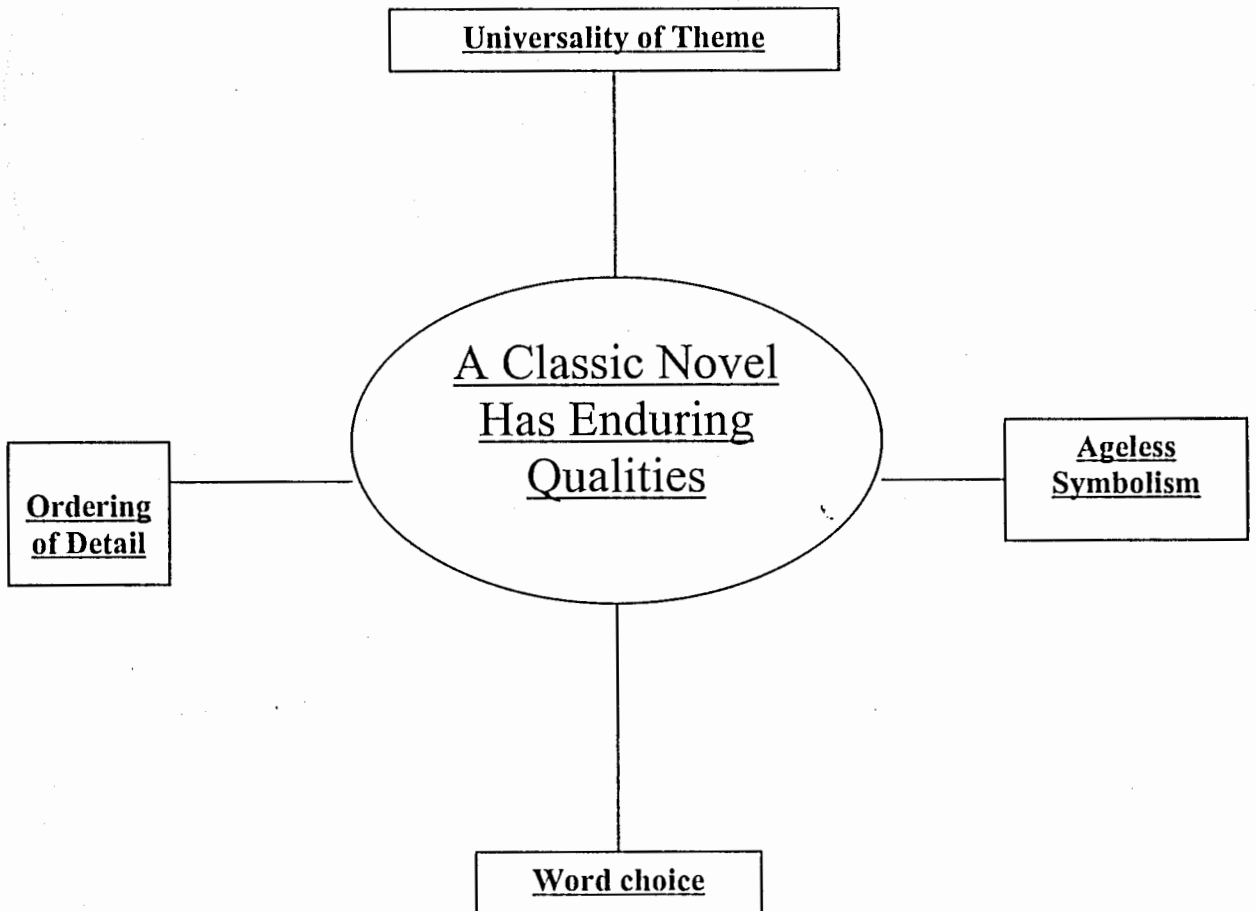




The Classic Novel

A classic novel is one that has stood the test of time.

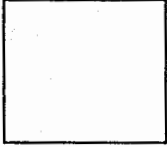
*A classic may also fit Mark Twain's definition – "something everybody wants to have read and hardly nobody reads."



Reading a classic is an aesthetic experience. In other words, it is experiencing a work of art.

Comparing Shapes

square



*all sides are the same length

rectangle



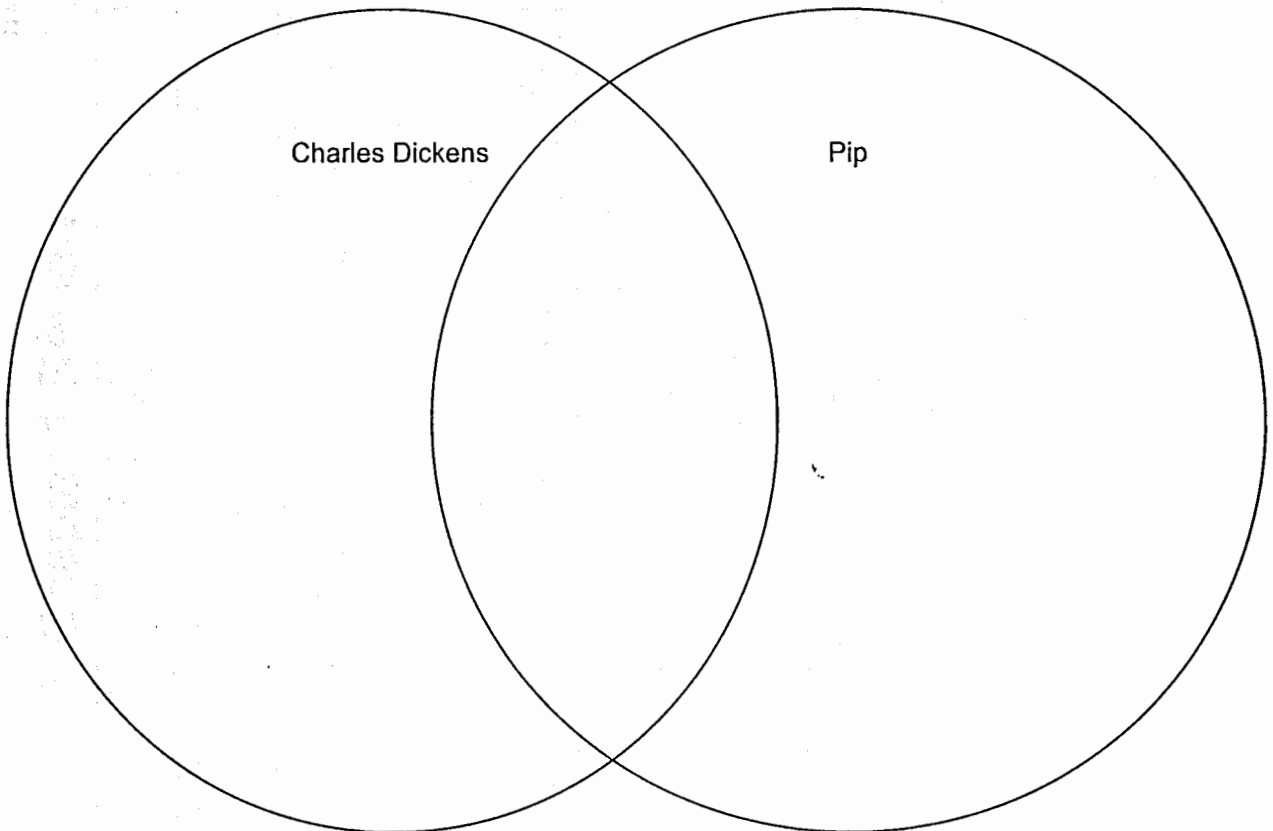
*two sides are short
two sides are long

*each shape has 4 sides
*each shape has 4 corners

Charles Dickens

Was He Pip?

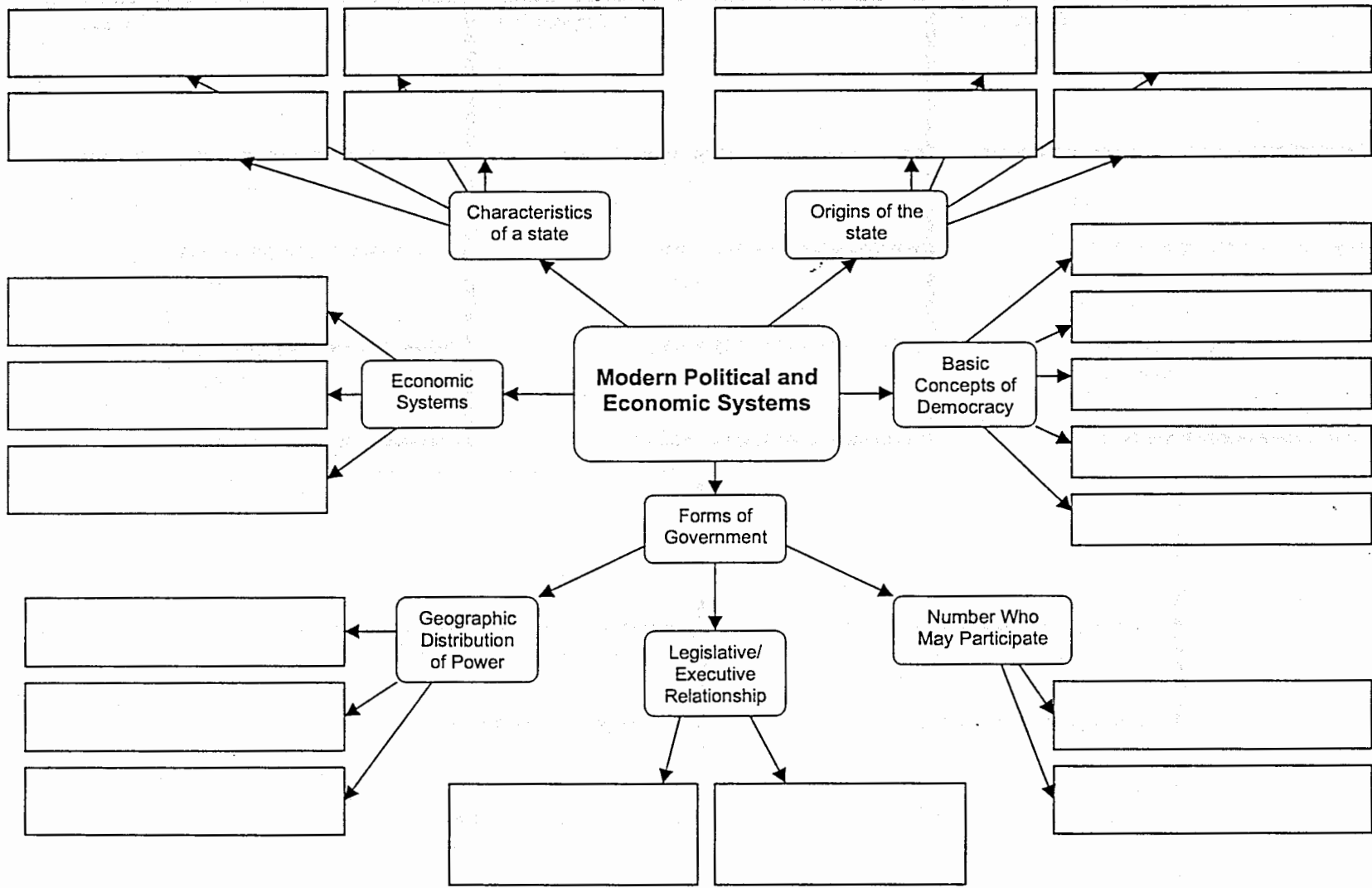
Few writers have written so movingly about, or captured so completely the inner workings of the child's mind as Charles Dickens. Dickens never lost the feeling of what it was like to be a child or to see as a child. And the memory of childhood – the best and purest link between this world and a better – is recollected and retold again and again in his novels and short stories. Use your knowledge of Charles Dickens and his character Pip and see if you think Pip is an autobiographical extension of Dickens' life and experiences. Be sure to consider setting, experiences, and personalities.



From your study, do you think Pip is an autobiographical extension of Charles Dickens?

Name: _____

Chapter 1 Review



Name(s): _____

Basic Concepts of Democracy Ch. 1 §3

Concept 1

Example:

Example:

Example:

Concept 2

Example:

Example:

Example:

Concept 3

Example:

Example:

Example:

Concept 4

Example:

Example:

Example:

Concept 5

Example:

Example:

Example:

Charles Dickens and His Times

What We Know	What We Want To Find Out	What We Learned	How We Can Learn More
<p data-bbox="434 1188 1033 1220">Categories of Information We Expect To Use</p> <ul data-bbox="134 1296 162 1737" style="list-style-type: none">A.B.C.D.E.F.G.			

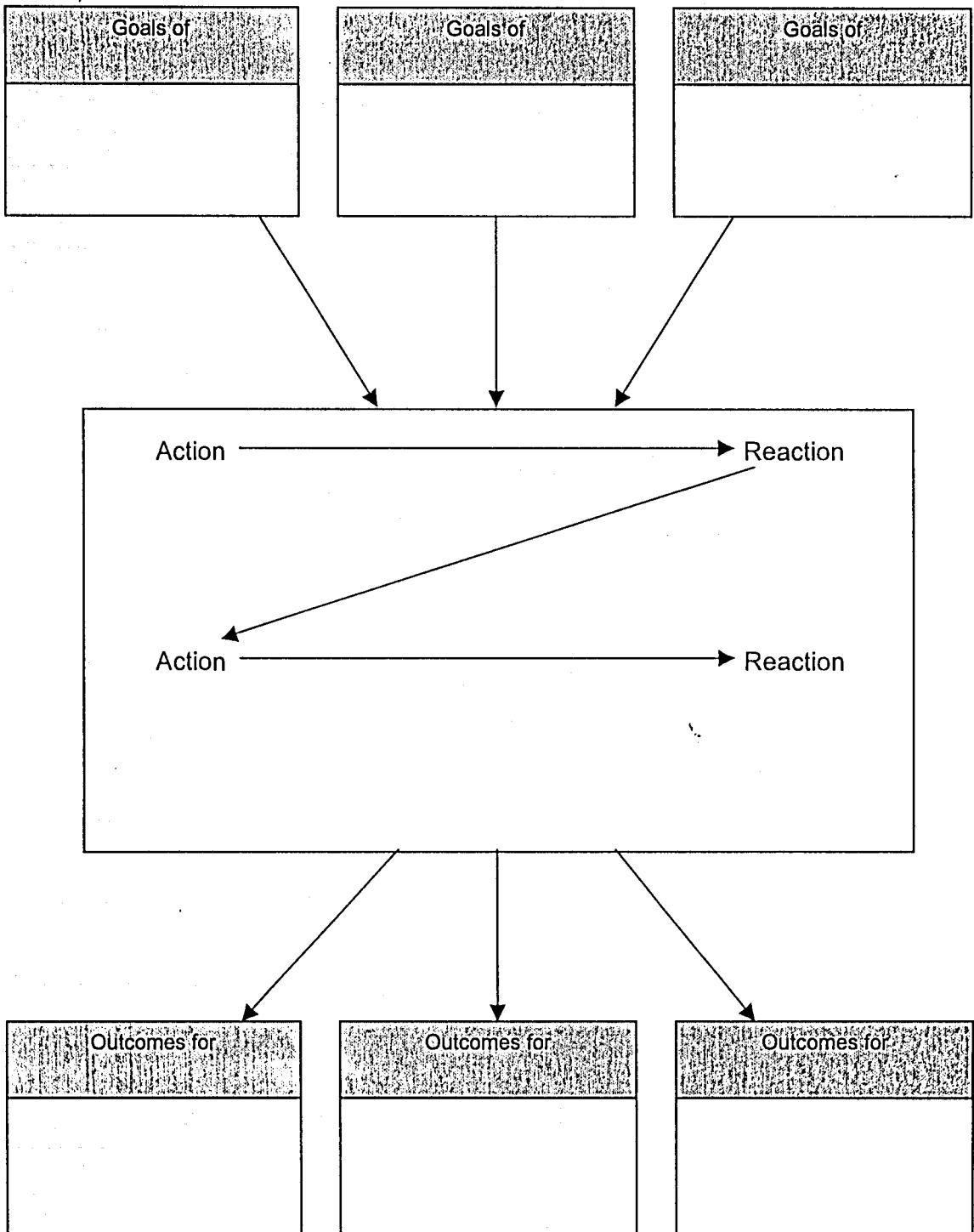
What you know	What you want to know	What You Learned	How You Can Learn More

Categories of information we expect to use.

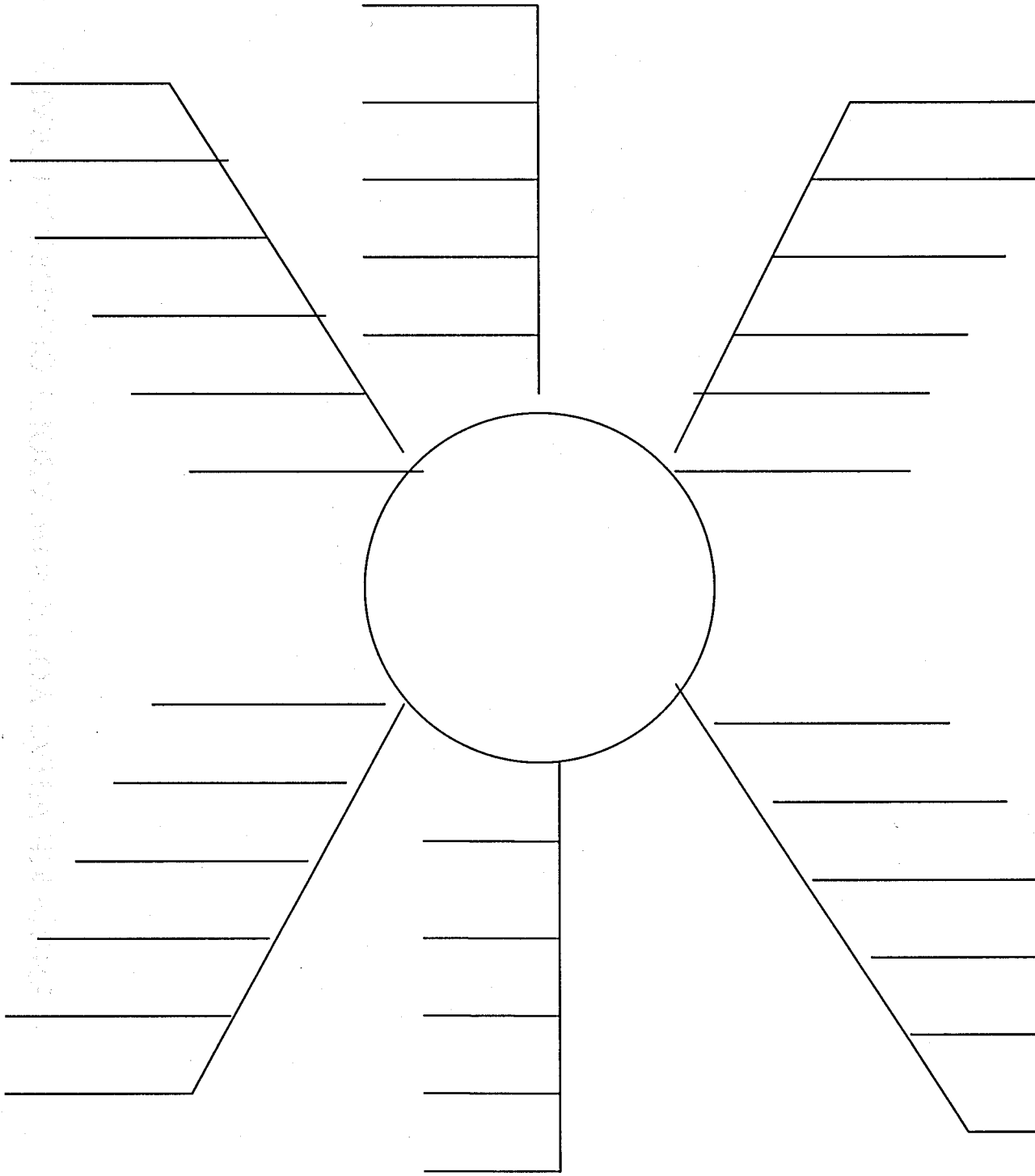
--

Name: _____

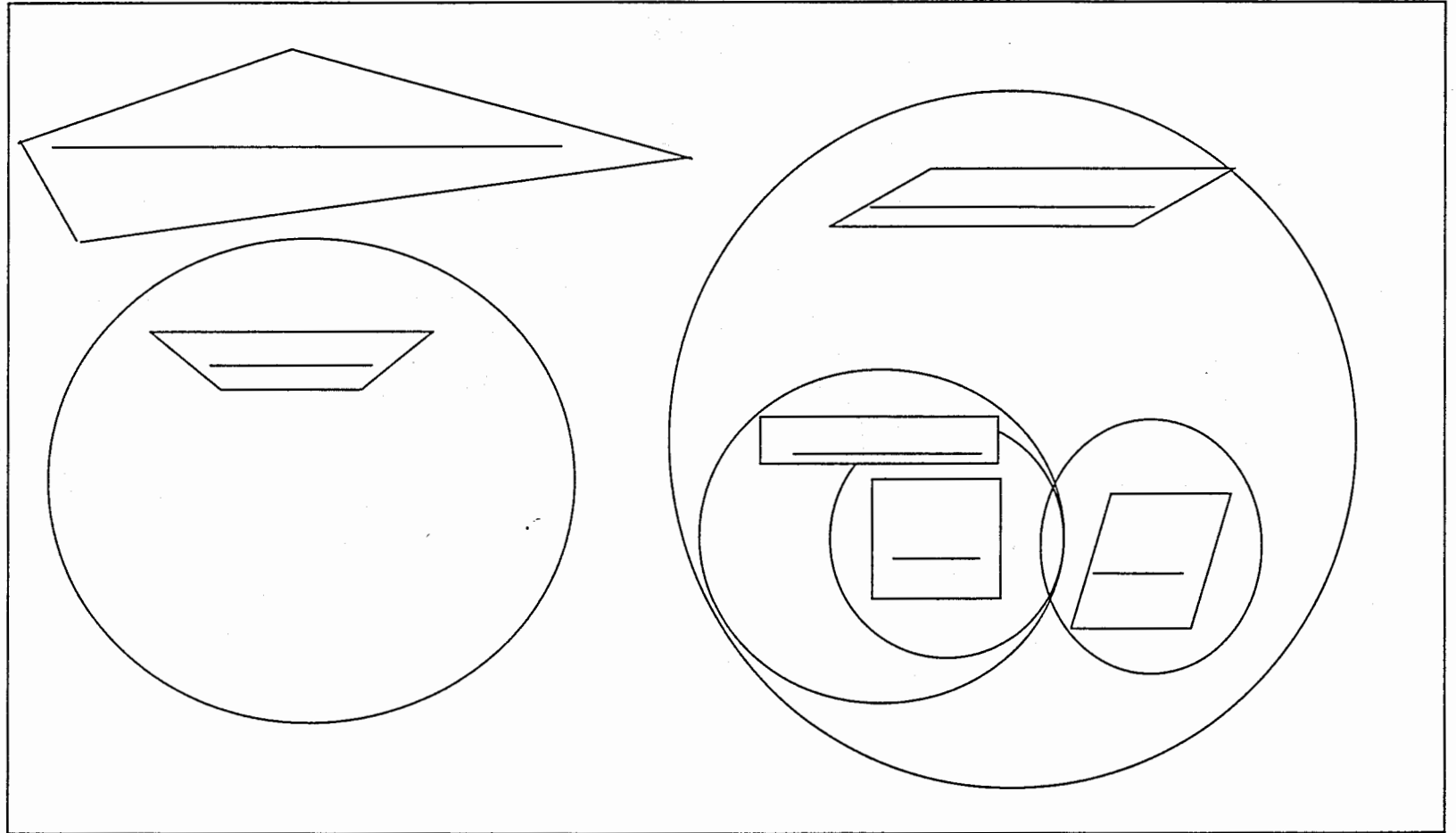
Interaction Outline



Classroom Procedures



SHOW ME WHAT YOU KNOW ABOUT QUADRILATERALS



Story Map

Title: _____

Major Characters: _____

Major Characters: _____

- 10. _____
- 9. _____
- 8. _____
- 7. _____
- 6. _____
- 5. _____
- 4. _____
- 3. _____
- 2. _____
- 1. _____

Events: Rising Action

Climax:

Events: Falling Action

- 11. _____
- 12. _____
- 13. _____
- 14. _____
- 15. _____

Conflict:

Resolution:

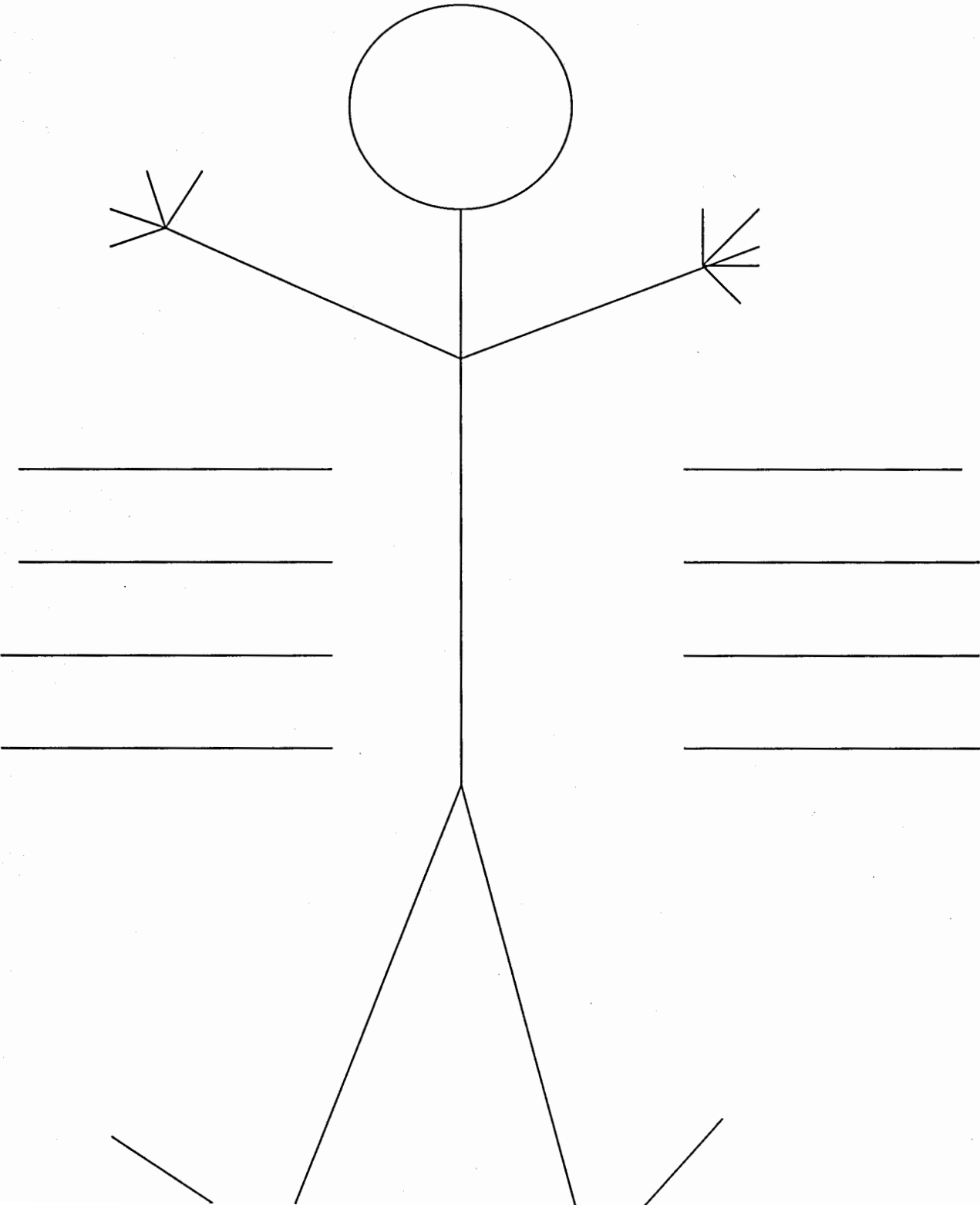


Setting::

Author's Theme:

Character Map

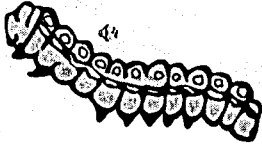
Child of the Week



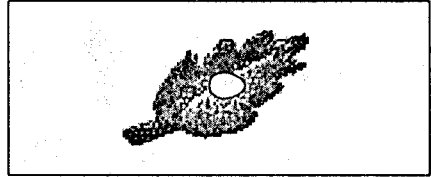
D. Multimedia Graphic Organizers

The Very Hungry Caterpillar

By Eric Carle



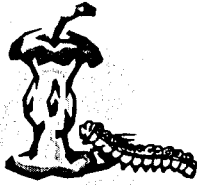
A little egg lay on a leaf



Pop! Out came a tiny and very hungry caterpillar.

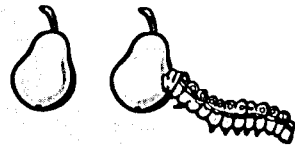


He ate through 1 apple.



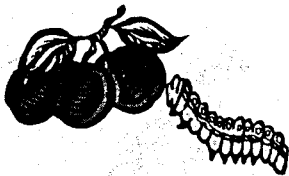
But he was still hungry.

He ate through 2 pears.



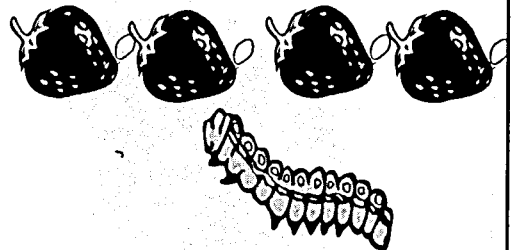
But he was still hungry.

He ate through 3 plums.



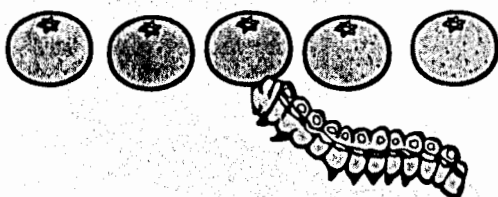
But he was still hungry.

He ate through 4 strawberries.



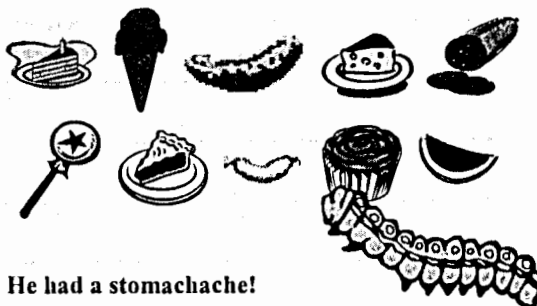
But he was still hungry.

He ate through 5 oranges.



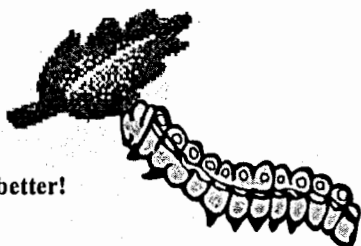
But he was still hungry.

He ate through . . .



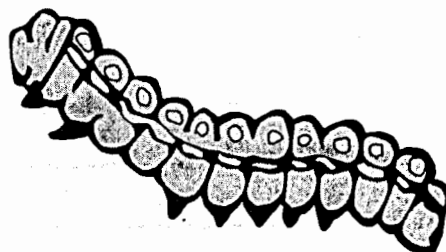
He had a stomachache!

He ate through 1 green leaf.

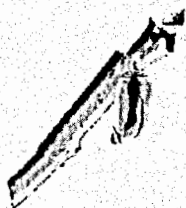


He felt much better!

He wasn't a little caterpillar. He was a big, fat caterpillar.



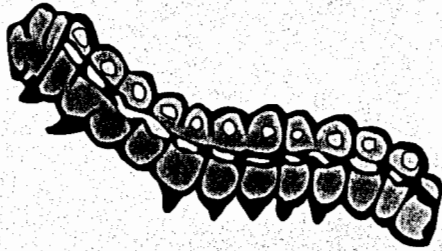
He built a cocoon and stayed inside for 2 weeks.



He nibbled his way out and he was a beautiful butterfly.



He wasn't a little caterpillar. He was a big, fat caterpillar.



He built a cocoon and stayed inside for 2 weeks.

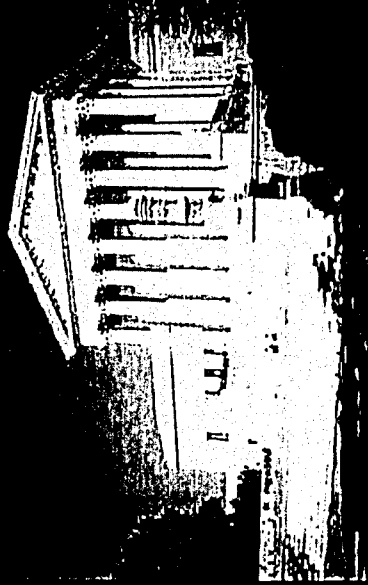
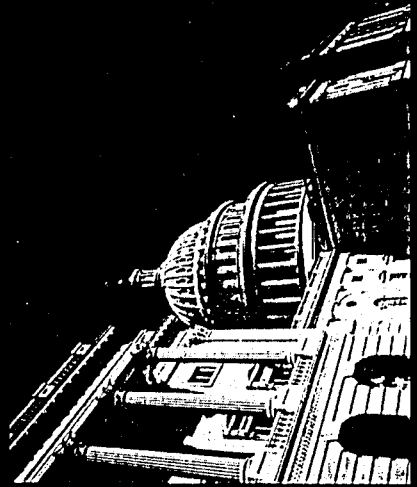


He nibbled his way out and he was a beautiful butterfly.





Forms of Government



What is it?

Form of government in which all of the powers of the government are held by a central agency.

What isn't it?

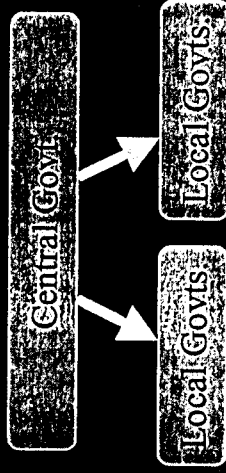
Form of government in which power is distributed geographically (federal govt.).

Unitary Govt.

Examples:

The United Kingdom

State of Iowa



Local units of government are created by and for the convenience of the central government. Whatever powers local governments may have come only from the central government.

What is it?

Form of government in which power is divided between a central government and regional governments.

What isn't it?

Form of government in which power is centralized in one central government (unitary govt.).

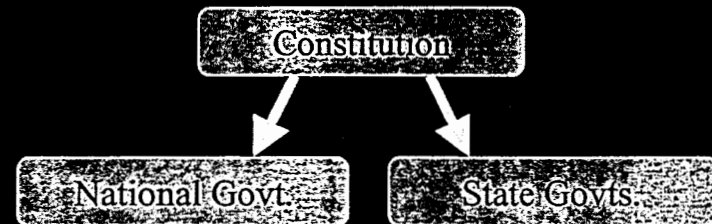
Federal Govt.

Examples:

The U.S. Federal Govt.

Germany

Mexico



The Constitution stands above the national and State governments and cannot be changed unless the people, acting through both levels of government, agree to that change.

What is it?

Form of government in which an alliance of independent, sovereign states creates a central government of very limited power.

What isn't it?

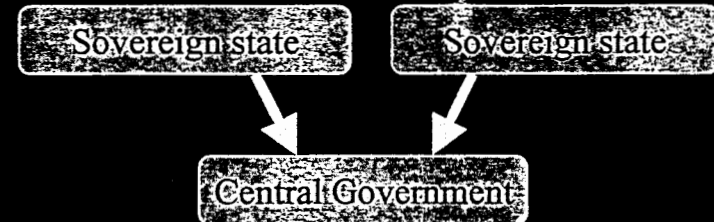
Any governmental system of one sovereign state (like unitary and federal systems)

Confederate Govt.

Examples:

Confederate States of America (Civil War)

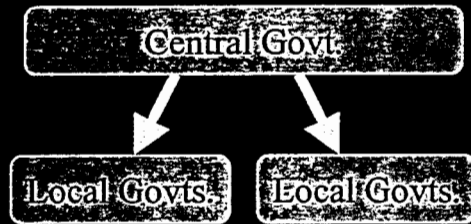
The United Nations



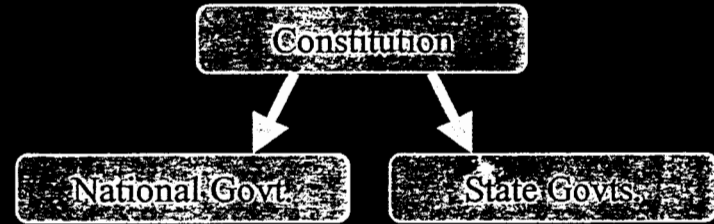
Typically, confederate governments have had limited powers and only in such fields as defense and foreign commerce.

To review...

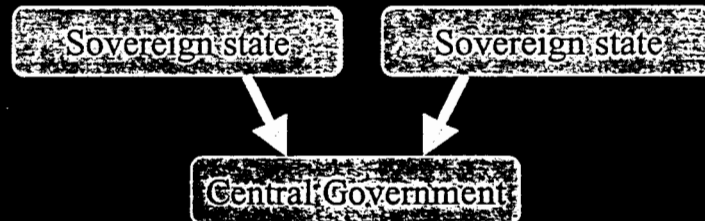
Unitary



Federal



Confederate



What is it?

Form of government characterized by a separation of powers between executive and legislative branches.

What isn't it?

Form of government in which the executive leadership is chosen by the legislative branch (parliamentary govt.).

Presidential Govt.

Examples:

The United States

France



The chief executive is chosen independently of the legislature, holds office for a fixed term, and has broad powers not subject to the legislature.

What is it?

Form of government in which the executive leadership is chosen by the legislative branch.

What isn't it?

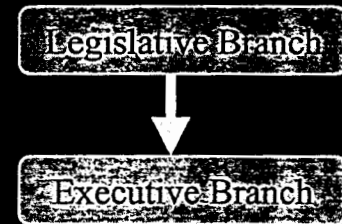
Form of government characterized by a separation of powers between executive and legislative branches (federal govt.).

Parliamentary Govt.

Examples:

The United Kingdom

Italy



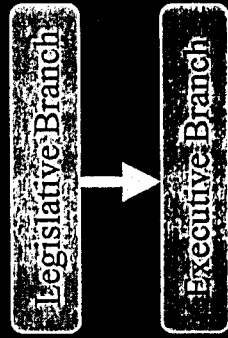
The executive remains in office only as long as their policies have the confidence and support of a majority in parliament.

To review...

Presidential



Parliamentary





The End



Definition

Enter Definition Here

Antonym

*Enter "Antonym"
Here*

Enter "Word" Here

Synonym

*Enter "Synonym"
Here*



Sentence

Enter "Definition" Here

Definition

Something visible that stands for something invisible.

Antonym

Realism or Concrete

**Symbol (noun) or
Symbolize (verb) –
Another definition**

Synonym

*Representation or
represents*

COURAGE

Sentence

The lion has traditionally been the symbol for courage.

Definition

Genre is a French word that denotes a distinctive type or category of literary composition.

Examples

Short Story

Poem

Novel

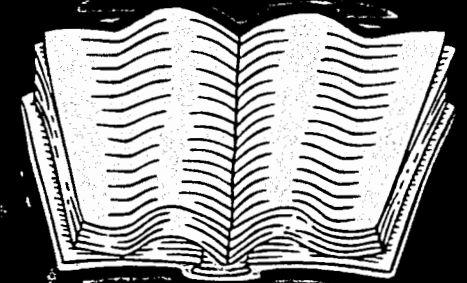
Genre

Synonym

Category

Sentence

The genre that Great Expectations fits into is the novel.



Definition

The events that make the story in a literary work.

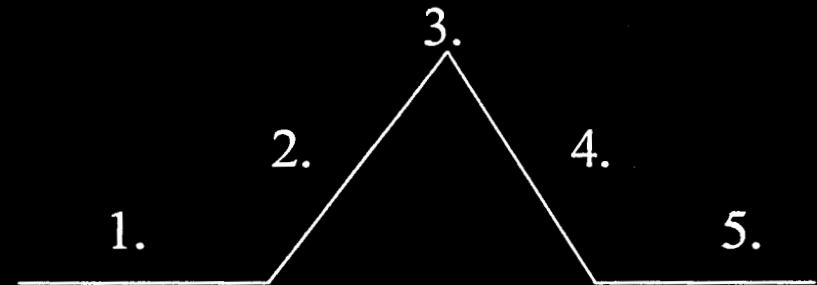
Parts of the Plot

1. *Exposition or Introduction*
2. *Rising Action*
3. *Climax or Turning Point*
4. *Falling Action*
5. *Resolution or Conclusion*

Plot

Synonym

Category



Five Part Diagram of Plot

Sentence

The plot of Wuthering Heights revolves around the wild and turbulent love affair of Heathcliff and Cathy.

Definition

The time and place where the literary work takes place.

Parts of the Setting

1. *The time span covered in the work*
2. *The place – this can be a real place or a fictional place*
3. *Can be in the past, present, or future*

Setting

Synonym

Place or time

Sentence

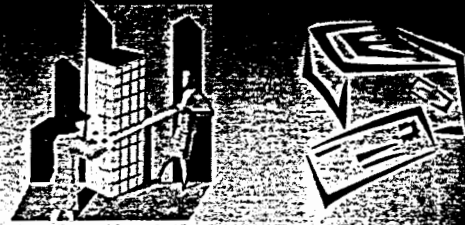
The setting of Wuthering Heights is in the moorland of England in the late 1700's and early 1800's.



What is it?

A four-sided polygon

What are some examples?



QUADRILATERAL



What is it like?

Closed

Plane figure

Straight sides

Two-dimensional

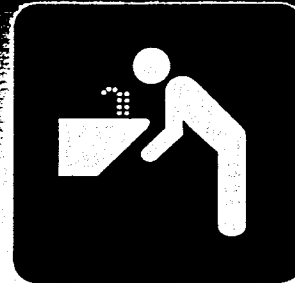
Made of four segments



What is it?

A four-sided polygon
with only one pair of
parallel sides.

What are some examples?



TRAPEZOID



What is it like?

Closed

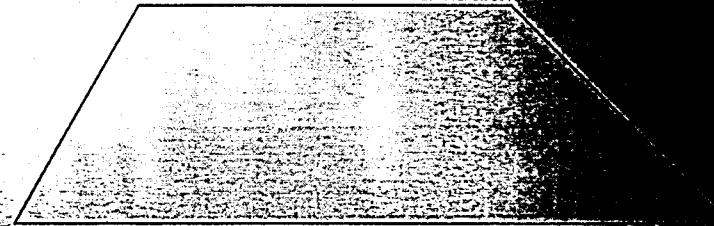
Plane figure

Straight sides

Two-dimensional

Made of four segments

One pair of parallel sides



What is it?

A four-sided polygon
with opposite sides
parallel

What are some examples?



PARALLELOGRAM



What is it like?

Closed

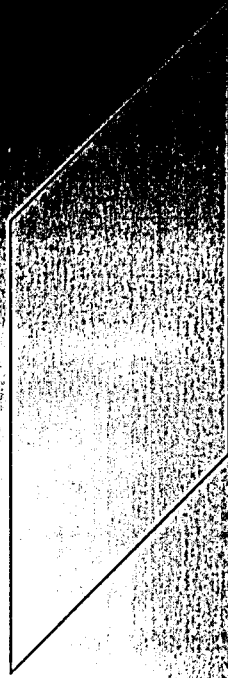
Plane figure

Straight sides

Two-dimensional

Made of four segments

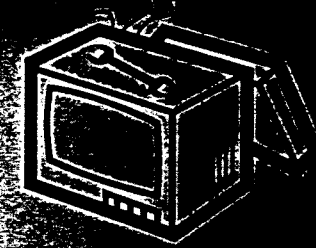
Opposite sides parallel



What is it?

A parallelogram with four
90 degree angles

What are some examples?



RECTANGLE



What is it like?

Closed

Plane figure

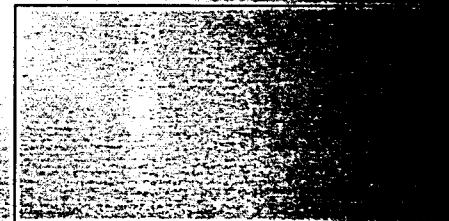
Straight sides

Two-dimensional

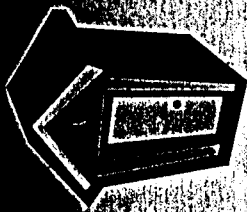
Made of four segments

Opposite sides parallel

Four 90 degree angles



What are some examples?



What is it?

A parallelogram with
congruent sides

RHOMBUS



What is it like?

Closed

Plane figure

Straight sides

Two-dimensional

Made of four segments

Opposite sides parallel

Congruent sides



What is it?

A rectangle with
congruent sides

What are some examples?



SQUARE



What is it like?

Closed

Plane figure

Straight sides

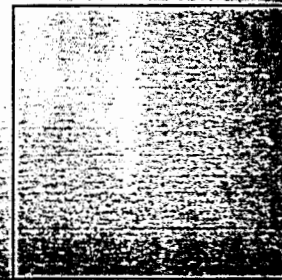
Two-dimensional

Made of four segments

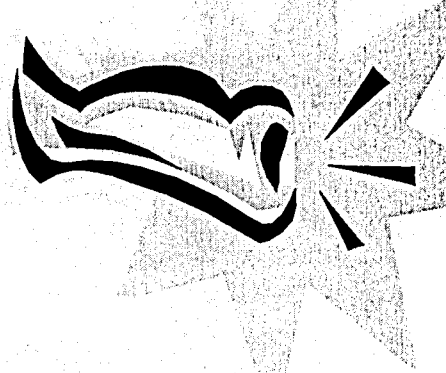
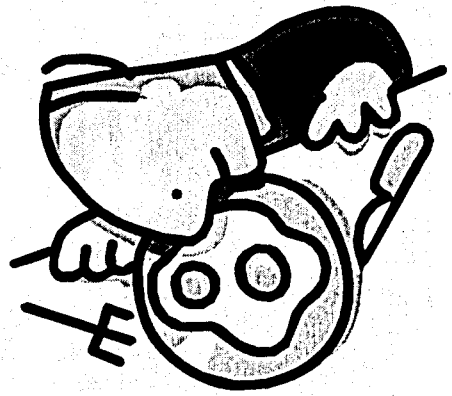
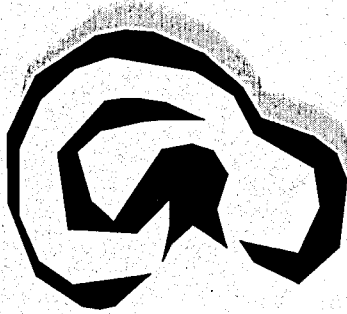
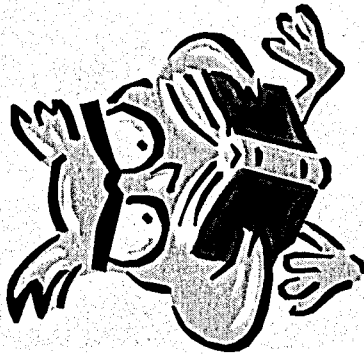
Opposite sides parallel

Congruent sides

Four 90 degree angles



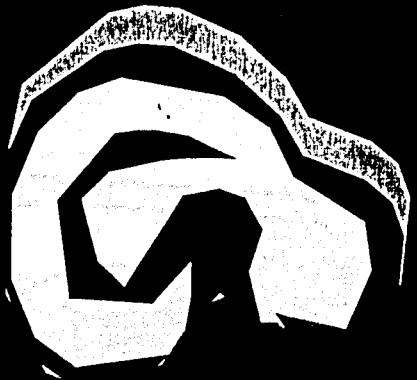
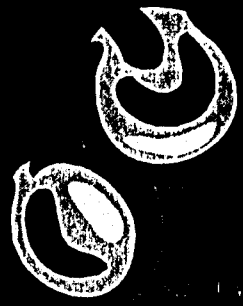
The Five Senses



SOONER

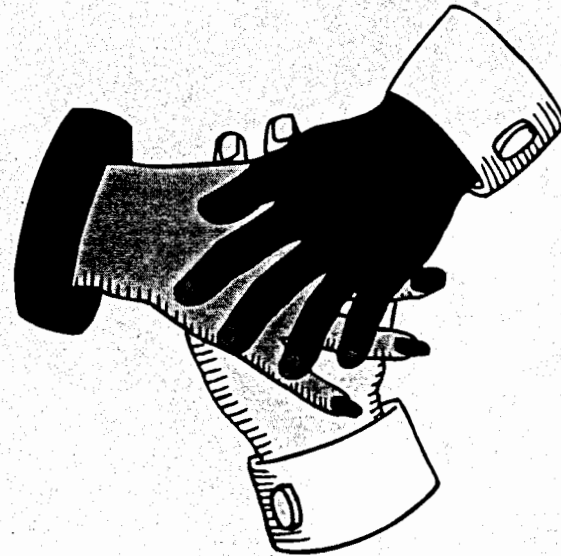
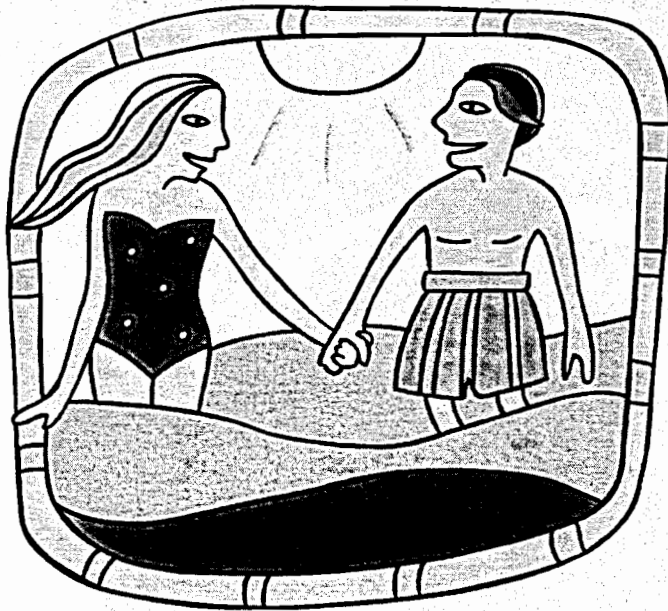
We see with our





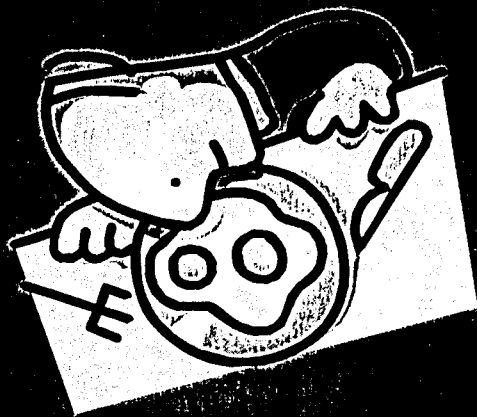
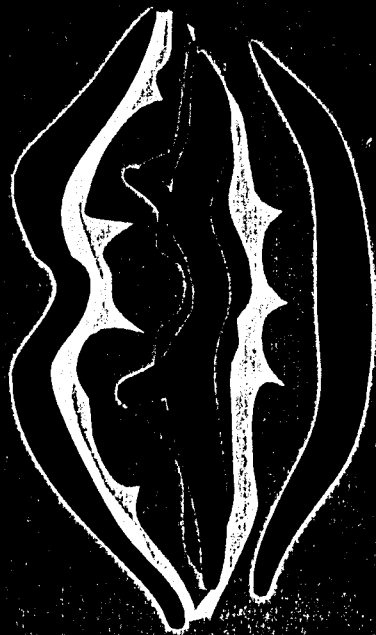
Touching

We touch with our skin.



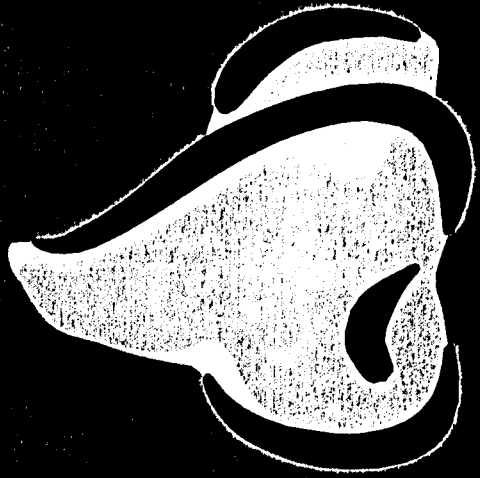
Tasting

We taste with our



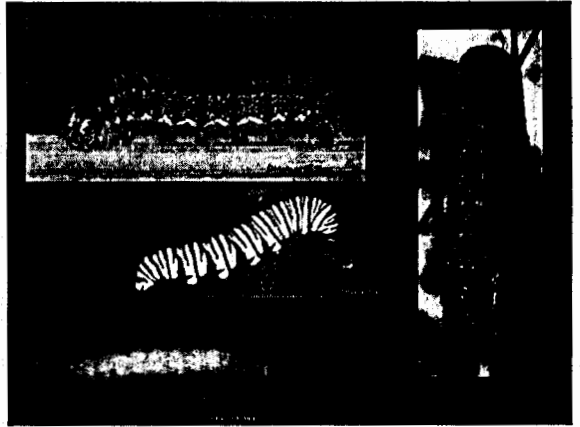
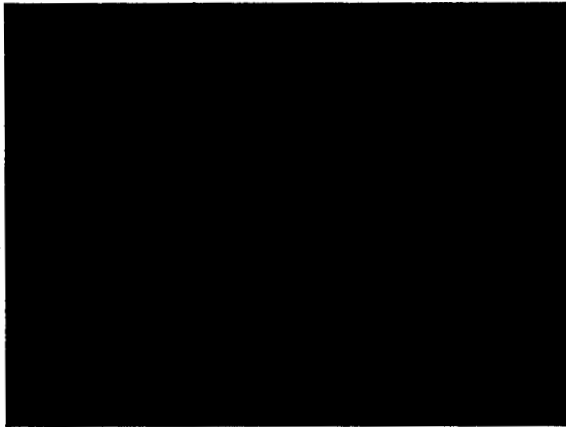
Smelling

We smell with our nose.



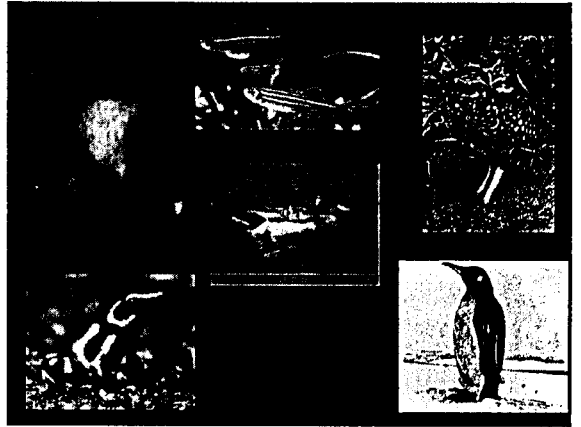
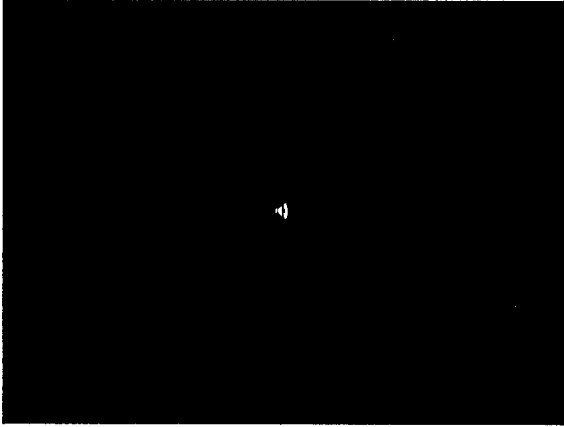
108





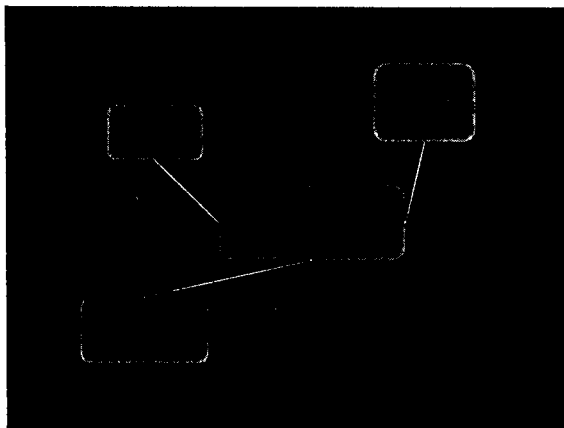
A _____ eats a lot and will turn into a butterfly or moth.

I like to watch a _____ crawl along a leaf as it looks for food.



animals hatch from eggs.

Butterflies, ducks, and frogs are all ~~various~~ animals.



E. Participant Evaluations

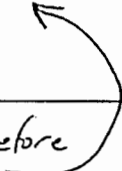
USING TECHNOLOGY TO SUPPORT VOCABULARY AND COMPREHENSION STRATEGIES

Before	What I ←Thought Know→ About ↓	After
I hadn't thought about using my computer to make organizers	Teaching Reading Comprehension	Lots of good ideas
I had only used pre made ones I found in teacher books	Graphic Organizers	Now I can make my own!
I had the basics	Using Microsoft Word	Wow! There's a lot more I can do!
I had been asking for a Powerpoint class in my district — no luck	Using PowerPoint	It's been fun learning how to use it. I have two presentations I can use in my
What would you like to learn more about? How to make charts to track individual progress		classroom and plan to make one for parent night.
What would you do differently? Nothing	Thanks for letting me join your class! Your district is so lucky to have you!	

USING TECHNOLOGY TO SUPPORT VOCABULARY AND COMPREHENSION STRATEGIES

Before	What I ⇐Thought Know⇒ About ↓	After
I've learned a lot about Comprehension from literacy initiative and professional reading that I've done (<u>Mosaic of Thought</u>)	Teaching Reading Comprehension	I found graphic organizers in McFet handout that correspond to informational text patterns. p. 61-76 Also text examples in Appendix p. 84, 85
I have used KWL + webbing.	Graphic Organizers	Have more ideas of ways / types to use at my grade level
I've tried but sometimes very frustrated.	Using Microsoft Word	It's becoming easier.
No idea.	Using PowerPoint	I see lots of possibilities, if time permits
What would you like to learn more about?	posting to web page	
What would you do differently?		

USING TECHNOLOGY TO SUPPORT VOCABULARY AND COMPREHENSION STRATEGIES

Before	What I ⇐Thought Know⇒ About ↓	After
Not much	Teaching Reading Comprehension	More than before — I'd still like more training though
Thought they were time fillers — didn't really understand them	Graphic Organizers	More than before 
Quite a bit	Using Microsoft Word	More comfortable w/ drawing features
Some	Using PowerPoint	Really comfortable w/ it
What would you like to learn more about?	Teaching reading comprehension & graphic organizers	
What would you do differently?		

USING TECHNOLOGY TO SUPPORT VOCABULARY AND COMPREHENSION STRATEGIES

Before	What I ←Thought Know→ About ↓	After
<i>NOT A LOT</i>	Teaching Reading Comprehension	USE OF VOCABULARY
<i>A LITTLE FLOWCHARTING</i>	Graphic Organizers	<i>THERE ARE MANY USES FOR THESE THE SPIDER AND CLUSTER ORGANIZERS CAN BE USED IN MATH I'M READY TO MAKE ONE FOR PROBLEM SOLVING</i>
<i>ONLY TO USE AS A WORD PROCESSOR</i>	Using Microsoft Word	LEARNED TO USE AUTOSHAPES
<i>MAKE A SIMPLE PRESENTATION</i>	Using PowerPoint	GOOD REVIEW USE FOR VOCABULARY PRESENTATION (GOOD!)
What would you like to learn more about?	<i>USES FOR POWERPOINT</i>	
What would you do differently?		