Graduate Thesis Project

The Impact of Visual Syntax on Reading Comprehension

Rebecca Biddle May 2001

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Introduction

Most of us learn how to read during our childhood. The ability to read is fundamental to living in our society; without this skill one can have difficulty finding a job, pursuing an education, or even following directions through a city. Today more than ever, advertising is aggressive and print is everywhere, on billboards, gas pumps, grocery store windows, highway signs. Every day, children and adults read, comprehend and evaluate the words and messages around them. By interpreting these messages, individuals can assess meaning and pass judgment, ultimately helping to shape their lives.

With the help of dedicated teachers and parents, more and more children are sitting down and learning how to read and comprehend sometimes difficult subject matter. This prompts them to use their imaginations, develop empathy toward others, and view situations from different perspectives. Reading builds confidence, vocabulary, and visual and spatial skills and is a fundamental skill for all content areas, such as math, science, and language.

Although reading the words in a book is essential to learning how to comprehend the meaning of a text, it is sometimes the subtle messages that help guide a student toward understanding. These messages are often delivered through the way in which the text is written, the colors used to represent mood and activity, how the pictures are placed, and how the pictures might interpret or support the text. Children who can make connections to visual elements usually have better success at comprehending the meaning of a story. The use of design can not only affect the way in which a child interacts physically with a book, but it can also help attract a child to reading and maintain their interest.

Within expository, or informative, texts it is essential for the designer to establish a design system for readers. The use of a grid system can help students categorize and comprehend subject matter by establishing expectations through consistency. The use of typography can support a book's meaning. Without a system or visual pattern, a student who has difficulty reading will find elements such as italic vs. roman text, different colors, and the use of upper case vs. lower case to be distractions and misleading visual cues. The use of typography can also catch the interest of a child by setting rhythmic tempos or patterns that keep the child turning the pages. "It is the author who provides the words, but it is the designer, along with the illustrator, who must give the text a visual shape while remaining true to the spirit of the author's message." (Silvey, 198)

Introduction

But as there are positive points of view on the use of design in books, there are negative ones as well—exploitation being one of them. "Seductively elaborate art can overwhelm the story or distract readers from weak texts. While no art form can remain blindly constant to conventions without becoming static, various critics have expressed concern about a tendency to celebrate showmanship over substance." (Silvey, 524) Design without function can be easily confusing.

Design elements such as illustration, color, and typography are all supporting attributes that can make reading more engaging and enhance comprehension while shaping a student's reading experience.

Thesis Definition

Thesis Definition

Introduction and identification of the nature of the problem. Includes history, situation, and goals.

Goals

- Research and study current textbooks
- · Select a text
- · Evaluate design
- · Assess needed changes
- Restructure/ redesign text
- Collect feedback from committee and outside expertise
- · Redesign text
- Redesign necessary changes
- Evaluate design and process
- · Conclude

The Impact of Visual Syntax on Reading Comprehension

In order for children to grasp the meaning of a subject, reading comprehension is essential. Within the American school system, expository textbooks are used to introduce new subject matter to students. These schoolbooks all have basic communication goals: to introduce new ideas, to interpret subject matter, and to offer explanations or conclusions about sometimes abstract theories. Textbooks such as these need to be as clear and straightforward as possible in order to achieve maximum comprehensibility. Written material that is poorly designed can be distracting for a student trying to read and understand new ideas.

To improve students' reading abilities and comprehension, a particular section of expository text was redesigned in a way that would ease the learning and reading process. Current textbooks presently used in the Rochester school system were researched and studied. The successful and ineffective design elements were evaluated based upon the book as a whole (macro-information) in relation to the design and structure in each section (micro-information). After the passage's legibility was evaluated, a proposal was made to suggest what changes could be made for improving comprehension. Current schoolbooks were analyzed and compared with ones used in the past, and any changes were noted within the presentation of information and formal design elements.

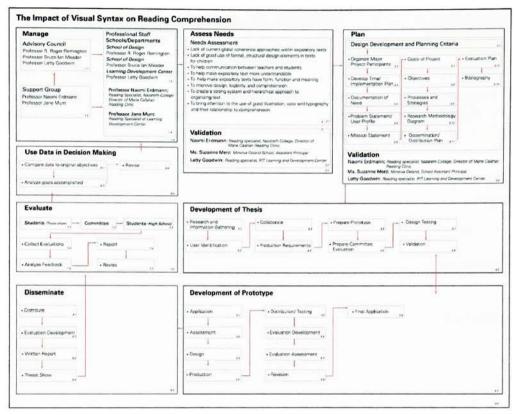
The goal of this project is to help students learn and retain information more easily by restructuring and improving a section of text. In establishing a strong hierarchical system that uses color appropriately, illustration meaningfully, and typography in an effective way, a chapter for young readers was organized so that it conveys clear meaning, rather than serves as a distraction. Guidance and advice was sought from committee members and outside reading specialists, and testing methods were applied to students and teachers from the Rochester area. Further refinements to improve or simplify material will continue to be made after testing.

In studying and redesigning a portion of expository text as well as collaborating with various experts in the area of technical writing, typography, reading, design, and education, the hypothesis that a student's reading comprehension can be greatly improved through the correct use of formal design elements, systems, and structure was supported and proved.

Process Diagram Purpose:

To adhere to an organizational plan and schedule that will prioritize and sequence thesis events.

To organize all parts of the thesis process and to visually understand each part's relationship to the others and the network as a whole.



This process diagram, or network, is a flow chart that helps organize all parts of the thesis process so that one can visually understand each part's relationship to the others and to the network as a whole. This diagram was created in order to organize the thesis project from beginning to end and help prioritize and sequence thesis events.

Each box is labeled and represents a part of the thesis project process. Numbers, or components (1.0, 2.0, 3.0), are placed in the lower right-hand corner of each large box. These numbers represent the level or order that the process or analysis should follow. Numbers, or sub-components (1.1, 1.2, 1.3), are placed in the lower right-hand corner of each small box. They represent the order of the process. The arrows between boxes indicate the output from one box becoming the input for the next. The process of one box must be completed before moving forward to the next. An arrow with two heads indicates that the processes of both boxes are mutually dependent.

(See appendix a for further planning processes.)

Descriptions of other existing projects, case studies, and models that have meaningful relationship to this thesis project.

Interview Protocol for Reading and Design Specialists

The following are sample questions asked at each interview:

Editorial—Syntax

- 1) What textbooks seem most effective? From your point of view—why?
- 2) What textbooks seem least effective? From your point of view—why?
- 3) What would you like to see changed within textbooks? Why?
- 4) Do you use other visual forms for teaching?

Editorial—Semantics

- 5) In your opinion, do teachers view textbooks as too challenging or not challenging enough?
- 6) Assuming that there are a number of important and necessary components in a teacher's learning environment, what is the role of the textbook?
- 7) What do children enjoy the most about their textbooks?
- 8) What textbooks are the hardest for children to understand—any particular subject matter?
- 9) Are there certain trends within textbooks?
- 10) Have you ever seen or used an exceptionally good textbook? If so, which one? Why was it good?
- 11) What are some techniques you use to help a child who is having trouble comprehending a textbook's content?

Editorial—Pragmatics

- 12) What are some examples of things that seem to give children the hardest time?
- 13) What textbooks seem to be least effective? From your point of view—why?
- 14) Does the way in which a textbook is assembled or made hinder comprehension?

Naomi Erdmann

Director of the Marie Calahan Reading Clinic and graduate professor of reading **Naomi Erdmann** is a reading specialist, graduate professor of reading, as well as the director of the Marie Calahan Reading Clinic at Nazareth College.

Naomi works with young children, teenagers, and young adults, ages 6 through 25, who are having difficulty reading and comprehending subject matter. She is also a graduate professor of reading at Nazareth College, working closely with Rochester teachers and graduate students from various grade levels in obtaining their master's degree in reading in the content area.

Naomi stresses the need and importance of textbook design. She believes the need for redesign is essential to a student's reading comprehension. Many students do not get the correct training in the strategic way in which to use a textbook, causing them to flounder once they reach high school, where the subject matter becomes text-heavy. According to Naomi, the use of supplemental visual forms for teaching can be useful, but too much emphasis on this aspect will not help a student later in life when it becomes important to fully understand how to use and learn from expository texts. She finds that many students are too often taught with the use of extra visual aids and not enough time is spent learning how to use a textbook. Consequently, once they have reached the high-school level, where the extra visuals are abandoned for lack of time and interest, the students become lost.

Forty percent of students in the classroom cannot read textbooks well enough to gain anything valuable from them. A text that is too flashy and crowded with material can be a distraction to students trying to sift through and understand the content. Middle-school and high-school social studies books seem to give students the most trouble because of the lack of organization. There is a need for **global coherence** within a textbook: a comprehensive design based upon the book as a whole, rather than **local coherence**, which is design based upon the book within individual parts. All the material and information they pack into the book and into each chapter, inconsistency, visual noise, and extraneous information can distract students, further impairing them in their reading and comprehension skills.

According to Naomi, textbooks that are most effective demonstrate consistency in language, color, and typography. Imagery and illustrations are also important elements that should be used appropriately to support material without becoming a distraction to the reader. Elements within the book that are highlighted or emphasized should be clear in their message and tangibility, as well as easy to find.²

(See appendix b for full interview outline and notes.)

"Good documents get us to read them, and when we do so, they communicate. They help us learn, support us in everyday activities, and enable us to make sense in our world."

"'Document design' is a new field: exploring good writing and good visual design that can improve what the documents deal with."

Dynamics in Document Design,
Karen A. Schriver

Dynamics in Document Design—Creating Texts for Readers

Karen A. Schriver

Karen A. Schriver has been a researcher, teacher, and consultant in document design for more than ten years. She holds a B.A. in English from Edinboro University of Pennsylvania, an M.A. in English from Carnegie Mellon University, and a Ph.D. in rhetoric and document design from Carnegie Mellon.

Since 1983, Karen has taught seminars on planning, writing, visualizing, and evaluating documents. She has been invited to speak and act as a consultant for U.S. companies, as well as government agencies and academic institutions.

Karen has recently left her position at Carnegie Mellon and is pursuing her own research as president of KSA, a document design research and consulting company.

Karen's book **Dynamics in Document Design—Creating Texts for Readers** spends time researching and describing what it is about document design that so many readers find dull, confusing, and ugly. She then discusses ways that designers can aim to make document design *less* ugly and *less* confusing. The book explores the useful qualities of documents and the way design has influenced their overall feeling and goal. The book is "based on two premises: that readers deserve documents that meet their needs, and that people who create prose and graphics play a central role in making this happen." (Schriver, preface, xxv)

The book is divided into three parts. Part one "provides a context for the field of document design, defining the term and pointing out various obstacles the field has had." (Schriver, preface, xxv) Part two is called "Observing Readers in Action." It explores various case studies in which the reader is presented with material and asked to give feedback. How does the reader interpret the document, how does the reader feel, what does the reader think? Part two also explores various layout and typographical elements that sometimes affect a viewer's response either negatively or positively. Part three is called "Responding to Readers." This section explores ways in which designers can learn from their audience. Listening and responding are the two key points of the chapter; it emphasizes the importance of designing texts with "people in mind."

Because this book is based on research, writing, design, case studies, and cognitive science, it has been very beneficial to this thesis project. The case studies have helped demonstrate various evaluation techniques and also verified or contradicted assumptions made based upon intuitive design decisions.³

"I think it's hard to find good companies who care about the design of books from the perspective of the reader. Most only care about glitz and color. As you say, there are many text books that are visually ugly and the design impedes comprehension."

Email from Karen A. Schriver

Email from Karen A. Schriver

In response to an email sent to her asking about design firms in the United States that are possibly working on reader-friendly textbook design.

I commend you on your thesis topic. It is important and so needed! Please consider publishing your results and if you need suggestions about where to place it, I can be of help. I think it's hard to find good companies who care about the design of books from the perspective of the reader. Most only care about glitz and color. As you say, there are many textbooks that are visually ugly and the design impedes comprehension. I would be interested in seeing your work! I cannot recommend a good company for my experience has been that most are pretty bad and actually kind of callous. I think it would be better to work as a freelancer with many companies and then find the one(s) you like best and who are most willing to accept new ideas/designs. Many are not. I recently designed a physics textbook for some profs at MIT. Addison Wesley Longman gave us a lot of freedom in the design but the money was kind of bad (\$2500) for the whole thing. Other ways to think about insinuating yourself into the design process is to advertise yourself with authors who plan to do it themselves. Many publishing houses are now encouraging authors to write and design their own books. Some of these authors need help. I bet a small business could be started just in that arena. A key would be trying to get into the process early so a contract for the design could be negotiated up front.

I am enclosing a bibliography on designing textbooks that you might find useful. There are many refs that show how hard it is for students to make sense of their textbooks. I wish you good luck and I'd like to read your thesis when it is complete.

best wishes,

karen schriver

(See appendix d for further outside contacts.)

"Reading deepens the pool of knowledge— collectively and individually—while helping to form opinions, convictions, and ideological beliefs."

"Reading is a process, writing is a process, designing is a process. Ideas form during each of these activities, connections are found, and a countless number of decisions are made."

Graphic Design and Reading

Gunnar Swanson

Graphic Design and Reading—Explorations of an Uneasy Relationship Gunnar Swanson

Gunnar Swanson is a graphic designer, media designer, and the director of the multimedia program at California Lutheran University. He has won more than 50 awards and publications and has written over a dozen articles on graphic design subjects.

Gunnar Swanson, one of the authors and the primary editor of *Graphic Design and Reading—Explorations of an Uneasy Relationship*, created this book with the theme of "looking at relationships of graphic design and reading". Issues such as "is graphic design *about words*—focusing on the writer's work—or *rewording*—a process of both restructuring and editing meaning?" (Swanson, 2)

This book is broken down into several essays written by designers in many different fields. The common thread however is the relationship between graphic design and reading. Many of these essays deal with the theme of human response—how the reader responds to the artifact and the impact that it makes upon them. "Viewing began to be understood as a process of human involvement, which entails an act of consciousness. Images are not just representations that enter our field of vision, but are experienced by us in a personal way." (Swanson, 54)

"A language consists of a vocabulary of signs combined according to grammatical laws." (Swanson, 73)

Although the book is somewhat avant-garde in some of its ideas (e.g.: creating a new alphabet that would be easier to learn and understand), the overall theme was valuable at the beginning research of this thesis project to describ the audience's participation and personal experiences while in the act of reading a text. It has been possible to take ideas from these various essays and translate them to this project, as they offer insight into the ways that students are interpreting and comprehending the textbooks they read.⁴

"We seem to be living in a short attention span culture. MTV, the internet, computer games—in this sense then ADD/ADHD, like symptoms in epidemic numbers, may represent less a biological disorder than a natural outcome of our children's brains being reprogrammed by short-attention-span popular media."

"We should consider the possibility that neurological diversity may be a potentially healthy development in relation to differences in the brain being just that—differences rather than disorders."

ADD/ADHD— Alternatives in the Classroom, Thomas Armstrong (pp. 5, 30)

ADD/ADHD—Alternatives in the Classroom

Thomas Armstrong

Thomas Armstrong is a psychologist and former teacher.

His book *ADD/ADHD—Alternatives in the Classroom* was written to foster awareness for a debilitating problem concerning young children, parents, and our school systems: the over-diagnosing of young children with either ADD (attention deficit disorder) or ADHD (attention deficit hyperactivity disorder).

The most affective approach to treating signs of ADD/ADHD is either through medication or behavior modification. Today, instead of exploring alternative remedies, most doctors diagnosing this disorder are prescribing medication, such as Ritalin. This book explores different options parents, doctors, and teachers have when dealing with a child with attention deficit, rather than the quick, easy, and sometimes destructive solution of medication.

"Only 3 to 5% of all children and adults in the United States actually suffer from ADD/ADHD, which is characterized as a biological disorder with symptoms such as hyperactivity, impulsivity, and distractibility. People can suffer from one symptom without the others." (Armstrong, 2) Over the past 15 years, there has been a growth in an ADD/ADHD diagnosis because of the shift of research of behaviorism to psychopharmaceutical treatment: the idea of problem solving through the use of pharmaceutical drugs rather than behavior modification. (Armstrong, 25)

Armstrong is trying to shift the emphasis from medication to behavior. He thinks that many children diagnosed with ADD/ADHD may learn differently or may be going through a normal growth stage. Armstrong is trying to communicate to parents and educators that "factors like stress, family discord, and cultural pressures may have a large role to play in the incidence of the kinds of behaviors associated with ADD/ADHD among some people. Attention deficit disorder may in large part be a reflection of a societal breakdown in values. To consider it simply as a neurological disorder is to ignore the broader social framework within which these symptoms occur." (Armstrong, 4)

This book has been a big help for this thesis project because it has created awareness of the differences in learning styles between a student who may suffer from ADD/ADHD or share some of the symptoms and the average student who can sit and concentrate for longer periods of time. When creating a textbook or designing its layout, it is important that the designer remains mindful of who the potential audience might be so that a wide range of readers' needs can be met by the overall design solution.⁵

Telephone Interview with Nancy Green

Nancy Green is a book publisher for WW Norton and Co. publishers.

After describing the objective of this thesis project to Nancy Green in a telephone call, the question was posed to her as to whether or not she knew of any book publishers or document design firms who specialize in design for textbooks.

Nancy didn't seem to know of any off hand. She claimed that her area of expertise kept her from being able to answer the question accurately, but that within her limited knowledge, she was not aware of any.

Nancy had a few ideas about possible places to look, suggesting that the in-house art department within a textbook publishing company could be the first place to start.

(See appendix c for more information on outside contacts.)

Description of facts, principles, theories, or relationships that have been discovered to help prove this thesis project's hypothesis.

Definition of Document Design—Dynamics in Document Design by Karen Schriver

"The organization and format of a document may be just as important as its language. The degree to which the document is matched to the capabilities of its users and the setting of its use may affect comprehension as much as clearly written sentences."

(Schriver, 10)

"Document design is the field concerned with creating texts (broadly defined) that integrate words and pictures in ways that help people achieve their specific goals for using texts at home, school, or work." (Schriver, 10)

"Document design is the act of bringing together prose, graphics (including illustration and photography), and typography for purposes of instruction, information or persuasion." (Schriver, 10)

"Document design fuses art and science. The art of document design involves shaping words and pictures in ways that help people to:

- Recognize the situations in which using documents might be beneficial (thus motivating and inviting readers)
- Discover how documents can be employed in order to carry out particular purposes and goals (thus supporting readers and their uses for texts)."

"The motive of document design is to employ words and pictures to help readers accomplish their personal goals—such as learning (e.g., mastering the operation of a personal computer), doing (e.g., changing the batteries in a smoke detector), or making a decision (e.g., choosing among health-care programs)." (Schriver, 11)

"[Expert practitioners] recognize that even when words and pictures appear to be functional and aesthetically engaging, there can be no substitute for observing what readers actually do, think, or feel as they interact with documents. By bringing readers into the process, document designers increase the likelihood of creating medical pamphlets that patients can understand easily, textbooks that enhance student motivation, and computer interfaces that help reduce errors on the job." (Schriver, 11)

"To create effective communications—ones that are sensitive to the needs of audiences—document designers must understand how readers might think and feel as they interact with documents." (Schriver, 152)

"Document design is the act of bringing together prose, graphics (including illustration and photography), and typography for purposes of instruction, information or persuasion."

Document Design, Karen Schriver (p. 10)

Definition of Document Design, cont.

Chapter three "How Documents Engage Readers' Thinking and Feeling" lists important aspects to consider when developing and refining preliminary evaluations. The following "characterizes the way in which people's thinking and feeling may come into play as they interpret documents." (Shriver, 151)

- "Presenting an analysis of readers' thoughts and feelings as they engage
 with documents, showing how interpretation may be influenced by
 attitudes, values, knowledge, experience, age, race, class, or culture."
- "Reflecting on possible differences between document designers and their readers that may make it difficult for communication to take place."
- "Showing that readers form impressions not only of what a document says, but also of who they believe may be presenting the message, of the people or organization they imagine delivering the context (i.e. the personal, the organizational identity, or the corporate voice)."
- "Demonstrating that when document designers analyze the audience, the model of the reader they construct matters a great deal." (Shriver, 152)

(See appendix d for more information on Dynamics in Document Design.)

AMS-Agnew, Moyer, Smith

Design Firm

In response to a question regarding whether or not AMS includes textbook design in their information architecture/information design department:

One of my favorite ways to gain insight into a problem is to analyze the ways that others have solved similar complementary problems. In the case of document design, one might examine the ways that others:

- · Develop and apply an organizing principle
- · Differentiate and signal the levels of the information hierarchy
- · Relate images to text
- Create consistency and coherence
- · Preserve continuity and flow
- · Gear the writing and illustration styles to the topic, format, and audience

I'm sure you could add to this list.

I'm enclosing a set of documents we've developed in the hope that they might reveal some insights. They aren't textbooks, but they all try to convey detailed information in a clear and engaging way. Perhaps you will find them a source for ideas, methods, and probably even a few examples of mistakes to avoid. In any case I hope they're a stimulus to your process.

Best of luck!

Norm Goldberg 7



AMS-Agnew, Moyer, Smith, cont.

Design Firm

Analysis of materials sent from Agnew, Moyer, Smith. Each design piece is an example of information design—how to organize complex subject matter.

Evaluation Key Points

- Having an overview or beginning introduction to the text is important to introducing your reader to the material.
 - Defining new words that will be used throughout the text is helpful.
 - —Introducing areas of the text that can be used for certain purposes can also help a reader become more familiar with the text.
- Combining the use of serif and sans serif typefaces, as well as varying weights and sizes, can help the reader be prepared for subtle differences between text and content meaning.
 - —The use of serif faces for key points, or increasing the point size and leading can emphasize a certain passage.
 - —Using sans serif typefaces for smaller text—such as descriptive labeling on charts or diagrams—can make it easier to read.
- Keeping a consistent system for utilizing different typefaces can help form a hierarchical system for the reader to become familiar with.
- Color-coding sections within the text can help readers orient themselves while reading. This color can also be accentuated and stressed throughout the text.
- Text that will be used within illustrations, diagrams, or charts needs to have structure.
 There needs to be a clear pathway between the text and the element within the diagram, chart, or illustration that the text is referring to.
- Rules can help with the structure of the text—they can ground and help organize material.
- Be clear about the audience for whom you are designing, and design according to their knowledge of the material and visual interests.

(See appendix e for detailed information on AMS materials.)

Yakima

Latty Goodwin

Reading specialist, The Learning Development Center, RIT

Interviews

Latty Goodwin is a reading specialist within the Learning Development Center at RIT. Latty contributed to this project by helping to define elements to look for that can confuse a reader within textbooks. She also advised and helped in creating effective and thorough evaluation procedures.

Latty helps college-age students develop strategies for understanding what they read and study. Students who are having trouble comprehending are taught to dissect their texts and use the informational elements to their advantage. She encourages and teaches students to read not just for content but for patterns, so that information can be broken down and study systems can be developed.

Latty explained that textbooks need to be both difficult enough to challenge the student, yet not so difficult that it becomes intimidating or frustrating. Textbooks need to reference the right and left brain at the same time in order to get the most out of the student. Any visuals need to be meaningful and referenced in the text.⁸

Nancy Midjley

Reading teacher, Northside Elementary School

Interviews

Nancy Midjley is a reading teacher at Northside Elementary School in Fairport, New York. Nancy helped to clarify positive and negative aspects of textbooks—elements that assist and distract a student when reading for content. She also offered advice in determining which type of textbooks need the most help with consistency and organization, as well as the kinds of things teachers such as herself would like to see improved the most.

Nancy teaches reading to elementary school students. In her opinion, the use of pictures and visuals can greatly enhance a student's understanding of a subject matter because of the ability of the student to relate and draw connections to the picture. She pointed out that language consistency is a trouble area within textbooks. Children pick up on subtle differences in the use of language and, as a result, can become easily confused.⁹

Marlene Evans Reading teacher, Thornell Road Elementary School

Interviews

Marlene Evans is a reading teacher at Thornell Road Elementary School in Pittsford, New York. Through her teaching experience, Marlene helped to clarify what constitutes an effective or successful textbook. In her opinion, the most effective textbooks are ones with good content—good stories. Textbooks that also include meaningful pictures and/or illustrations seem to be most successful as well. Such pictures help give the student a chance to visually connect with the material. Poetry or other supplementary prose within textbooks is also beneficial, in Marlene's opinion, because it adds interest and variety. Extra elements within a chapter of a textbook can inspire a child in ways not necessarily recognized before.

Marlene believes that science and social studies texts seem to give students the most difficulty due to usually uninteresting layouts and condensed content. She cited McGraw Hill as an example of a publisher that has repeatedly caused problems for students. Often because the books are over-designed and the content too easy, students find the books dull and uninspiring. Marlene mentioned that for one grade level, McGraw Hill had seven to eight teaching manuals—too much information for a teacher to possibly cover in one year's time.

Some changes Marlene recommends as being beneficial for students and teachers are "section questions" posed at the beginning of the chapter, rather than at the end so that students have an idea of what kinds of things to look for while reading the text. This would eliminate the need for students to turn back pages in order to find answers to the questions. Vocabulary words placed at the beginning of the chapter would also be a helpful change so that students would be able to learn and recognize the vocabulary words while reading the chapter. Dividing the text into separate small chunks so that each section of text is more digestible to the student may help students comprehend more advanced and difficult subject matter.

Marlene's suggestions as to how to make textbooks a bit more reader-friendly helped this thesis project's redesign phase. Although Marlene's suggestions, once put to use, may have made the revised chapter a few pages longer than the original text, they nevertheless seemed to have made the chapter much easier and more inviting to read.¹⁰

(See appendix f for detail and outline of interviews.)

Synthesis

Synthesis

Description of interrelationships and patterns sorting, sequencing or ordering information or parts of the problem.

Semiotic Design Model

Semantic: Message Information Design Refers to the relationship of a **visual image** to a **meaning**. How well does the design represent the message? Do people fail to understand the message the design denotes? Do people from various cultures misunderstand the design?

Meaning:

Concept Message Content

Words

Hierarchy Symbols

Perception:

Aesthetics Harmony Subjectivity

Balance Gestalt Feeling

Communication:

Emotion Clarity Like/Dislike Legibility Language

Readability Vocabulary

Appropriate to Audience

Syntactic: Aesthetics

Sensorial Design Refers to the relationship of one visual image to another.

How does the design look?

How well do the parts of the design relate to each other?

Is the construction of the design consistent in its use of figure/ground, solidity, outline, overlapping, transparency, orientation, format, scale, color, and texture?

Specification:

Deadlines

Budget

Tools

Format

Production:

Materials Fabrication

Distribution:

Posted

Mailed Time-based

Handed out

Ergonomics

Interactive

Human Factors:

Pragmatic: Function Usability Interaction Design Refers to the relationship of a visual image to a user.

Can a person use the design for its intended use?

Is the design legible from typical viewing distances and in typical lighting? Is the design difficult to reproduce?

Form:

Composition Colors Hierarchy Typography

Shapes Textures Space

Proportions Rhythms Infrastructure

System Grid Columns Margins White Space 11

Selection of Grade-Level/Subject Matter

Based upon research and interviews, a United States history textbook from the eighth grade level was chosen. Not only was the age of the students a determinant in this decision, but also their close proximity to high school and the difficulty of the subject matter.

Textbook/Chapter Selection

Once the grade level and subject matter were determined, the textbook was the next to be selected. *Creating America, A History of the United States* was chosen with help from Naomi Erdmann because of its subject matter, its recent publication date (2001), and its use within the local Rochester area school system. After a brief overview of the design was completed (global coherence), a chapter was selected that seemed to accurately represent the many different design elements used throughout the book. The chapter selected was "The Roaring Twenties," Chapter 25.

Textbook Permission

Once the textbook was selected, permission was requested from the publisher, McDougal Littell, to use their text for demonstration purposes. A fax was sent to the supervisor of rights and permissions stating the parameters of the project as well as the chapter and pages requested. The publisher sent permission to use the chapter and text in form of a letter. The only stipulation was to credit the publisher on any display of the original text. (See appendix g for complete letter.)

Textbook Audit

After choosing the chapter to be redesigned, an auditing system was established to examine the design elements and organizational structure already present within the book. First an overall auditing system was applied to look at how the book as a whole was organized—how extra features were exemplified within the book in a way the reader would recognize: if and how they color-coded the book, how they set up the exercises, vocabulary words, and main ideas, etc.

Once the audit for the book was finished, an auditing system for the chapter was established and performed based upon the previous audit.

Criteria for Evaluation

Based upon interviews and research, criteria by which to evaluate the textbook chapter were established. These criteria included the successful use of an overall grid system, appropriate and systematic use of color, illustrations (including graphs, charts, and diagrams), images, and typography (leading, point size, bold-faced words, etc.). Improvements to the design were then suggested and documented to use as a starting point in the redesign process.

(See appendix h for full design audit and evaluation.)

Ideation

Ideation

"The design of printed matter that involves a great deal of typographic and pictorial material presents a complex problem. It is the designer's task to organize such material into a communicative and visually pleasing whole."

A Modular Grid System in Graphic Design Westinghouse Printing Division, Catalog Design (Intro.)

Design Process

Once the design criteria were established, the design process could begin, starting with a basic grid structure.

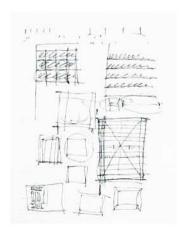
Grid Structure

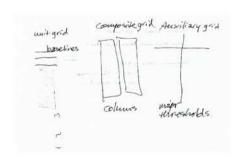
"A modular framework for coordinating miscellaneous visual material (typography, diagrams, charts, photographs, drawings, tables, etc.) and so distributing this material that all parts of the composition, including blank spaces, are interactive. It is a geometrically and aesthetically conceived division of space: geometric, because it provides a unit of measure for regulating proportions; aesthetic, because it involves scale, harmony, rhythm, etc. The grid is based on functional requirements on the one hand and optical refinements on the other." (Westinghouse, Intro)

Many different grid layouts were experimented with and refined:









Ideation

Ideation, cont.

Description of the generation of conceptual solutions and preparation of a range of preliminary design approaches.

Design Process and Ideation

After a grid system was established, the redesigning process could begin. Ideation for only one section of the chapter was started. Once the structure and details had been worked out within one section, the same structure could be applied to the remaining three. The first step was distinguishing between primary and secondary information by referring back to the chapter audit. Organizing the information on the page and within the grid structure was the next step in the design process. Many different design approaches were attempted:









Intermediate Evaluation

Description of testing strategies that were used to judge ideation and the resulting selection of possible design solutions.

Evaluation of Committee

After the first draft of layouts were completed for the first section of the chapter, an evaluative committee meeting was scheduled in order to obtain feedback. Professor R. Roger Remington, Professor Bruce Ian Meader, and Professor Latty Goodwin met to suggest various ways to improve the overall organization and structure of the layouts.

Information that was looked for included:

- · Are the layouts clear in their organizational structure?
- Are design elements consistent?
- · Is the secondary information clearly defined?
- What are some ways that the chapter could be more dynamic?

Some of the feedback received was as follows:

- Create a running head that contains the name and number of the chapter, section title, and page number. This information will be constant. The only variable could be a shift in color from one section to the next.
- Bleed bands of color highlighting features within the chapter.
- Bleed any photos or images that are used within the side columns.
- · Watch all spacing and make sure it is consistent.
- Improve any diagram graphics, if needed.
- · Watch the top and bottom margin widths.
- · Watch rules.
- Watch line length.
- Make layout more dynamic.
- Use brighter colors.

(See appendix i for example page.)

Intermediate Evaluation

Questionnaire Development—Preliminary Evaluation

As the development on the prototype continued, it was necessary to also begin a rough draft of a sample questionnaire that would be handed out within Naomi Erdmann's graduate-level Reading for Content classes. Various teachers from different grade levels around the Rochester area attend Naomi's classes at Nazareth College. The first draft of the questionnaire was developed in order to gain feedback from a range of teachers who all have expertise in reading and content. This was a way to evaluate the design of the chapter as it stood thus far in relation to the original textbook layout.

Latty Goodwin was asked to provide feedback and/or suggestions after the first draft of the questionnaire was completed. Based upon Latty's suggestions, a second draft was created.

(See appendix j for preliminary questionnaires.)

Implementation

Implementation

Description of how the project was refined, developed, and produced in its final form or application.

Prototype Development

After receiving an intermediate evaluation from thesis committee members, the necessary revisions and corrections were made to the already existing section. Once an approval of that section was received from Professor R. Roger Remington, it was time to start applying the same structure and design layout for the remaining two sections of the chapter, a featured geography section, and the chapter assessment.

Having completed all the sections within the chapter, it was necessary to make adjustments to the the overall layout in order to make it more dynamic. Examples of these adjustments were: bleeding photos, colors, and gradients and adding interesting and playful imagery where appropriate.

After these adjustments had been made, the chapter was completed. It was then printed out on white cougar opaque paper, front to back, (the way it would look within the textbook) and bound for the thesis exhibition.

Once the thesis show was completed, a meeting was held with Bruce lan Meader to discuss final adjustments and suggestions for the chapter as a whole. Refinements were made again, and the book was complete until after feedback and the formal evaluation was received.

Implementation

All text is from Creating America: A History of the United States by Jesus Garcia, Donna M. Ogle, C. Frederick Risinger, Joyce Stevos, and Winthrop D. Jordan.

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Prototype Development—Implementation

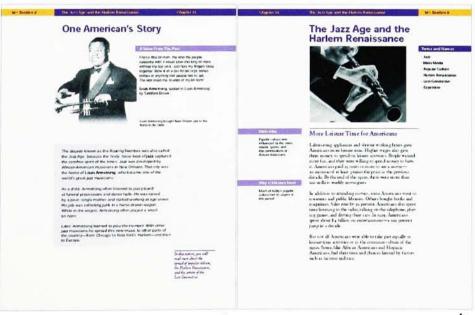
Below is an example of some before and after spreads. The original layouts are shown on top, labeled with numbers, while their redesigned counterparts are shown below, labeled with letters.

(See end of appendix o for original and redesigned prototype pages.)



Before

After



b.

Before



2. 3.

After



c. d.

Before



4. 5.

After



e. f.

Dissemination

Dissemination

Description of plans for future audience interaction—how could this project or information be distributed or used in the future?

Dissemination Plan

After revising the chapter and bringing it to its final form, a plan was made to distribute and test the material in order to not only get an accurate evaluation of the redesigned layouts, but also to prove or disprove the original hypothesis: whether the use of a strong structural grid system and appropriate use of color, typography, illustrations, and clear diagrammatical images would help to improve students' reading comprehension.

Both the redesigned and original layouts from the *Creating America* history text were distributed to two separate groups of graduate students from Nazareth College. The graduate students, all working on their master's degrees in reading in the content area, were teachers of different subjects, from different grade levels, and from various Rochester schools.

The first evaluation took place on a Saturday and consisted of 13 students. The teachers in this first group represented grade levels K through 8. The evaluation included both a section from the original history text (format B), and the redesigned section (format A). After introductions had been made, instructions were given for the evaluation procedure. Both formats (original and revised) and an evaluation sheet were handed out to the students. They were then instructed to look over both excerpts, compare and contrast them, and then evaluate the layouts based upon statements asked in the evaluation. The test was a simple compare and contrast format; the students would circle either A, if format A seemed to better answer the question, or format B, if format B seemed more appropriate. The four questions on the backside of the evaluation were directed to the teachers, asking how they use textbooks, what they consider to be strong elements to include, and what elements they would change within the texts they presently use.

The second evaluation took place on a Monday night and consisted of 20 teachers ranging from grades K through 12, who teach various subjects, and are from various schools within Rochester. In each of the previous evaluation sessions, a brief discussion ensued after the evaluations were collected. Topics ranged from feedback on the redesign to various issues, thoughts, and concerns regarding current textbooks.

The objective of this questionnaire was to gain an understanding of which layout appealed more to teachers, experienced eyes, who have had much exposure to many different texts. It was essential to see if the educators agreed that format A was more effective in its organizational system than format B, and whether the overall layout was clearer and easier to follow. Based upon the feedback received from the students/teachers, the information and feedback could be incorporated back into the working redesign of the chapter.

(See appendix k for graduate student dissemination plan.)

The third evaluation plan was distributed to 15 middle school students who attend the Marie Calahan Reading Clinic on Monday night. These young students were currently working with the group of graduates or clinicians that participated in the evaluation the Monday before. Because this focus group was taking place at the Marie Calahan Reading Clinic, a clinic for reading disabled students, the testing was different than for students in a standard academic setting. The testing done in this setting was valuable for acquiring results because the students already needed extra help in their comprehension abilities. This was different than an evaluation of the students within the Rochester school system would be as they would not have one-on-one help from the teacher, as the students within the Marie Calahan Reading Clinic did.

These young students and their clinicians were given either format A or format B, a questionnaire, and a piece of paper. The clinician was to record the age, grade level and sex of the student they were working with, as well as which format they had been given. The clinician was then to give the student 5 minutes to read the excerpt. After 5 minutes, the student was to mark the page to indicate how far they had been able to read. The clinician was then instructed to ask the student a series of 5 questions and write down the answers. The students were advised not to go back and look for the answers, as this was testing how well they could comprehend and recall the content of the section. It was not important that the student read the entire section, nor was it important that they be able to answer all 5 questions. The remaining last two questions asked the student how easy the chapter had been for them, based upon a 1 to 5 scale, 1 equaling very easy and 5 equaling very hard, and if there had been anything about the section they read that confused or bothered them.

The most important aspect of this evaluation was to see if comprehension had been affected in any way from format A to format B, and to see which format, if any, had allowed the reader to read the farthest.

(See appendix I for Marie Calahan student dissemination plan.)

In the future, it would be beneficial to adequately test this material on a larger group of students in a classroom setting with a range of abilities. In that circumstance, it might be beneficial to test one grade level below the textbook level so that the student didn't have the advantage of familiarity with the book beforehand. Having a few weeks to teach the material as well as teach the book to the students would establish the foundation for a more accurate test of comprehension. This kind of comprehension testing would need to be done over time and with a focus group of students from all levels of learning ability.

Retrospective Evaluation

Assessment of the final project to determine strengths and weaknesses—how could future versions be improved?

Evaluation Feedback—Graduate Students

After the evaluations by the 32 graduate student/teachers at Nazareth College were completed, it was necessary to review the comments and feedback made on the evaluation forms as well as notes written down during the discussions. (See appendix m for evaluation comments and feedback.)

Most of the comments made in the Saturday morning discussion were similar to comments made in the Monday night group. The comments on the forms that varied from person to person in each group were also similar. Because comments and concerns were so consistent from form to form and discussion to discussion, it gave the suggestions credence and importance.

Many of the teachers had expressed concern over the amount of information included within textbooks. They felt that too much information can intimidate students from reading the material.

In response to the question:

If you could change the way textbooks are presented, how would you do so?

"Make them simple—no extra information/color."

"The textbooks we use have so much information that they are unable to go into detail on any particular subject."

"I think the simpler, the better!"

"Not so much info on one page! Make more subtle colors!"

"I would decrease the amount of distraction on each page and minimize information on each page."

"Not so much information. Some books have so many facts it's like an information overload."

In response to the question:

Do you think the presentation of information to students is important?

"Yes! If there is too much information students become frustrated and don't want to read!"

"Many students have difficulty reading texts. The combination of the vocabulary along with a scattered layout makes it very difficult for struggling readers and harder than it needs to be for good readers."

"Yes—some students can get overwhelmed and distracted by the amount of information on a page and then not get the information necessary to comprehend the text."

"Yes, the layout of a text will either enhance comprehension or make it more difficult for students to comprehend. Also if text appears to be jam-packed with info or there is too much going on—students tend to shut down and don't even want to deal with it."

Many of the teachers suggested changing the main headings of each new topic-paragraph from a statement into a question.

" Turn topic/title into a question—sets purpose for reading."

This way students would know what information to look for while reading the passage. A few suggested making some material more prominent so that students couldn't skip over it so easily, while others recommended placing a timeline at the top of the page so that students could relate the material they're reading about with key events taking place in the world.

Suggestions were made to eliminate small caps for the numbers and dates and instead to use the font's regular numbers, possibly increasing their size, making them more prominent. Also using color for vocabulary words would accentuate the word better than merely bolding it.

Overall, out of the 32 graduate students/teachers, 30 of them chose format A (the redesigned version) as the more successful design approach than format B (the original version). Many felt that the original version was "overwhelming" and fatigued the reader's eye before too long.

"If students are overwhelmed, they don't continue to read. They give up."

"Format A seems more interesting, less cluttered, and consistent per page. It isn't overwhelming and I feel it is easier to read. I like the whole layout!"

"Format A is more pleasing to the eye. The text is not overwhelming—paragraphs are spaced. I like the information on the sides."

"The text is so well organized! A topic remains on one page. The photos and pictures are not distracting (as is format B) but add to the content. There is more white space on format A, which is more appealing and less intimidating. There is a comfortable feel to the format A text, which is helpful to the reader."

Color was the only design element that the graduate students had differing opinions about. Although many evaluations commented on how much they appreciated and liked the new design's softer, more subdued colors because of their soothing and less distracting effect, others thought that the colors might be too soft and dull to carry through an entire book. While many agreed that the original text had too many vibrant colors, which could become distracting or bothersome, they felt that the redesigned version could possibly have a few more brighter tones to liven up the material.

"The color of B is too bold, it hurts the eye. [A] is easier to read and easier on the eye."

"The color in B is too distracting."

"Format A is good color, not too bright and distracting, not too dull either."

"Less is more! Softer colors in A were less distracting!"

"I think using the same color throughout A will become boring to a reader—over life of text. Format B can use too much color."

"Pictures are brighter, more clear in B."

"Loved the red in B-and the underlined bold print."

Evaluation Feedback—Marie Calahan Reading Students

After the evaluations by the 13 reading students at the Marie Calahan Reading clinic were completed, it was necessary to review not only the feedback, but the accuracy of the comprehension questions.

Six students (all male) ages 10 through 14, 5th grade through 8th grade, received format A, the redesigned chapter. Seven students (6 male, 1 female), ages 10 through 15, 5th grade though 8th grade, received format B, the original chapter. The answers to the comprehension questions ranged in accuracy between format A and format B. Format A had 14 correct answers out of 30 questions while format B had only 11 correct answers out of 35 questions asked.

Question six of the evaluation asked the students to rate the excerpt they had read from 1 to 5, 1 being the easiest and 5 being the hardest. No student rated format A as being very easy to read (1), while format B had one student who rated it with a 1. Most students who read format A rated it between 2 and 4, while students reading format B rated it between 1 and 5. So, while format A did not have a rating of 1 by the students, neither did it have a rating of 5, while format B had ratings at both ends of the spectrum.

(See appendix n for evaluation details.)

Question seven of the evaluation asked the students if there was anything about their excerpt that confused or bothered them. Many comments received about both format A and format B had more to do with the content of the excerpts than the design elements. Many students had trouble reading and understanding the material because the text was either above their grade level or above their reading level.

Some comments made by the students were very valuable: In response to the question:

Was there anything about this excerpt that confused or bothered you?

Format A

"No."

"Words too long and confusing."

"Hard words, bothersome questions-too hard!"

"Words hard."

"Type too small."

"I like the picture of Babe Ruth."

Format B

"Too much writing."

"Very hard."

"Boring things, looked confusing. Don't like vocab. words with meaning in parenthesis within text, needs to be highlighted or on the side."

"Easy to read, hard to remember."

"Confusing 'cause talked about one thing and switched to another."

"Sometimes there were a lot of facts crammed into a little reading. I like diagrams on the side."

"I like when they underline words. Mixed up text is okay."

The students were given 5 minutes to read the excerpts as far as they could. The amount of text read would possibly suggest (outside of the comprehension questions and the rating question) how easy the text was for them to read. The students' reading abilities really came into play here. Some students almost reached the end of both formats, while others had trouble finishing the first page.

Comments made by the clinician observing the student while reading the passage were:

Format A

"Begins with head on hand, soon begins skimming through text quickly, with focus on pictures and captions. Focused on bold words. Didn't spend time actually reading the paragraphs, he did more of a skim and scan. Finished within 2 minutes, but didn't do any real reading."

"Visible signs of recall, yet content too hard."

"Read all pictures first."

Format B

"Didn't even look at top of page with heading because it was so dark."

Many of the clinicians made the comment that the material was simply too hard for the students. This seemed to hinder their ability to read the content with any understanding and to answer the questions without feeling nervous.

Retrospective Evaluation—Graduate Students

Since color seemed to be an issue with many of the graduate students/teachers from Nazareth College, it would be important to improve the paper quality and therefore the print/color quality of format A, the redesigned version. Although the color for format A was not planned to be as subtle and subdued as was seen on the printed paper, and was in fact a result of the kind of paper used to make multiple copies for testing purposes, it was one major cause of dispute between many people. Likewise, the color copies that were done for format B, the original version, was also not a true indicator of the book's original color.

Paper was another variable between formats. Due to the natural variation between printer paper and color-copy paper, the thickness and finish of the papers were different, which were other differences that a few people acknowledged.

The inability to disassemble the actual textbook borrowed from Newark Middle School also inhibited the ability to produce color copies that did not show the curl of the page into the gutter area of the book. Cutting out each page and copying it would have produced more accurate and less conspicuous results. Because the pages could not be cut, they were not absolutely straight and the page curling was evident. Therefore it was easy for the administrators to recognize which version was the original and which had been redesigned. This would surely lead to some bias in either direction.

In hindsight, it would be very important to make sure that the quality of both paper and color be as close as possible to the intended color for both formats A and B.

For accurate testing results, the designer should leave the testing area and assign an assistant to hand out and collect the evaluations in order to ensure that there is no added pressure placed upon the participants.

Retrospective Evaluation—Marie Calahan Reading Students

Due to the abilities of the students at the Reading Clinic, the evaluation was not as focused on elements of design and comprehension as it was on content and reading level. Many of the students who attended the clinic the night of the evaluation were too young for the level of difficulty of the text. Other students were the right age for the text level, but had reading problems that hindered their abilities to read the text and understand the context comfortably. The ages ranged from 10 to 15 and the grade level ranged from grade 5 to grade 8. Since the excerpt was taken from an 8th grade text-book, the 8th grade students had an advantage over students a few years behind them. Consequently, the results of the comprehension test were skewed according to age and grade level.

Many of the students became frustrated with some of the words, calling them "hard" and "confusing" and regarded the questions as "hard" and "bothersome." This undoubtedly had to do with their grade and reading level. The amount of reading that could be done within 5 minutes also varied from age to age and grade level to grade level. One student remarked that the text was easy (rating it a 1 out of 5) and commented that "Practically everything in here I learned in Social Studies." Other clinicians commented that their students could not get past the first page, while others simply skimmed the material and read the captions to the pictures.

The comprehension aspect of the evaluation therefore did not reveal that either format A or B was easier to understand. Ideally, a group of randomly picked students from a local middle school would be necessary in gathering any solid evidence from comprehension testing.

The comments and ratings made by the students, however, were much more conclusive than the comprehension section of the evaluation. More negative remarks were made in regards to format B than format A. Students referred to format B as "confusing," "crammed together," and "scattered." One student had excellent advice on how to separate the key words and information from the body text: "Sometimes there were a lot of facts crammed into a little reading. I like diagrams on the side. I like when they underline words. Mixed up text is okay." These kind of comments helped in determining which format, if any, seemed to be easier and more comfortable for the students to read and comprehend.

It can be determined that although the comprehension area of the evaluation was not very conclusive, overall the rating system and the comments made by the students have tended to favor format A over format B. Further testing and further comments and discussions would need to be done to decipher an accurate conclusion.

Retrospective Evaluation

In order to get a valid idea as to how and why particular textbooks are effective, a designer would have to observe a classroom environment in the practice of using various texts. How the teacher teaches the material from the texts, how the students react to and learn from them, and the kinds of activities the teacher incorporates into learning the content would be valuable and essential.

Conclusion

Conclusion

Summary of overall experience and outcome—what was gained? Reading comprehension in relation to textbook design is only just beginning to be recognized as an important aspect of teaching and learning. Its importance is overlooked by many publishers and designers, yet is in demand by many teachers, parents, and students.

This thesis project has been a tremendous learning experience. All the aspects that went into creating a well-rounded project, including research of issues surrounding different learning and teaching styles, dynamics of ADD/ADHD and how it affects students within the classroom environment, reading comprehension, document design, and the school system have contributed to the final prototype and evaluation process of this thesis.

The many interviews that were conducted, whether with elementary school teachers, design professors, or reading specialists, all had one predominate concern—the *need* for better textbooks. Whether the textbook was inadequate in terms of its design, pragmatic issues such as size and weight, or the amount of content, is a growing need and desire to address these issues has been revealed.

The way in which material is organized and presented to the reader is an important aspect of comprehension. What has been discovered is that many textbook publishers don't put much emphasis on the level of clarity needed to convey the message. After the redesigned chapter of this textbook was completed, it was very important to gather evaluation and feedback on the design. Is it presenting information to the reader in a way that is clear, approachable, and interesting? A designer can only do so much in terms of designing material that will be used for an outside audience without consulting that audience directly. Gathering direct information from the people who use the textbooks the most in the beginning: teachers and students, would have made the process of redesigning the chapter more constructive. Knowing beforehand what aspects of the current textbooks are working or not working could have helped establish a starting point in the redesigning process.

Overall, this project has been very successful and valuable in teaching one how to design information in the most comprehensible way possible for a particular audience. Many people within the Rochester school district, as well as contacts and advisors from different colleges around Rochester, have supplied tremendously valuable advice and feedback that helped focus this project and bring about a successful outcome. This project offered the opportunity to look into a different academic world, one that would not have been explored had this project not been carried out. Learning about the educational system as well as understanding and appreciating the role of teachers has been invaluable.

Although some publishers use teachers as consultants to determine the content of certain textbooks, when it comes to design, teachers and students are not being heard. This project focused on the needs of teachers and designed a chapter of a textbook to serve as a model, based upon teacher and student requests. Whether or not textbook publishers think it's important to test their material, the evaluation proved the need to do so. The testing uncovered the voices of teachers and students calling for more consistent and better organized textbooks, as well as less cluttered and more visually appealing designs. It is important for publishers to understand how fundamental principles of design, such as grid systems, effective typography and meaningful images, can influence a designs overall success.

The evaluation process was one of the most informational and inspiring parts of this thesis project. Having the chance to test the material on both teachers and students was one the most important aspects in the design process. All of the feedback received from the graduate evaluation was very constructive and helpful. Many of the suggestions were unique in that they came from teachers that have used expository texts in many ways for years. Their opinions and concerns are the most important in designing a successful text because of their first-hand experience with the texts and students. The discussions that ensued after the evaluations had been completed were both positive and inspiring. The teachers were helpful and supportive, yet constructive and realistic. Testing and evaluating this project has made it relevant to the educational system. Understanding things like budgets, politics within school systems, state testing requirements, and pragmatic issues such as the size and weight of current textbooks have all contributed to this project. Understanding one's audience is key to designing an effective project.

In order to address the needs of so many teachers and students, it is possible that this project will be taken to its next level. Distributing material to various textbook publishers could be the starting point in communicating the need for clearer and more simplified textbook design. Calling attention to the issues of student comprehension and its connection with expository texts could help convey the demand teachers and parents have for improved educational material.

The goal of this project was to help students learn and retain information more easily by restructuring and improving a section of text. Although the comprehensive evaluations were not as successful in proving legibility and increasing students' comprehension, the evaluations received by the graduate students/teachers were very helpful in verifying the assumption that design can influence understanding. Continuing to rework the prototype based upon feedback will hopefully in the future prove to increase the success of comprehension. To continue testing within standard academic settings will be important in justifying the need for improving textbook standards. By showing textbook publishers a redesigned prototype based upon the needs and requests from both teachers and students, the necessity to improve design of current textbooks will hopefully become a priority in the development of educational materials.

Glossary of Terms

Book Design

Total plan for physical arrangement of a book, including format, front matter, typeface, text placement in relation to artwork, medium employed, and artistic style.

Color Forms

Tones, tints, shades, grays, white, and black.

Composition

Organization of artistic elements in relation to each other and to the whole; the process of design.

Easy-to-Read Book

Book with controlled, limited vocabulary for beginning readers.

Elements

Line, color, light and dark, shape, space, and texture.

Expository Text

Informative textbooks.

Format

Book size and shape.

Illustration

Visual image as extension of text; decorative illustrations are loosely related to the text and mainly serve to embellish printed matter; instructional illustrations offer visual information that elucidates text; documentary illustrations chronicle fictional or factual events.

Negative Space

Empty, unfilled space within a composition.

Principles of Design

Rhythm, repetition, motion, and spatial relationship created by use of artistic elements within a composition.

Reading Comprehension

The ability to understand and process the meaning of written material.

Style

Characteristics or mannerisms of an artist that reflect individual attitudes, a unique approach, and/or relationship of a historical period or culture.

Text Placement

Arrangement of words on the page of a book in relation to artwork.

Visual Literacy

The audience's ability to distinguish between reality and unreality, to appreciate use of details that contribute to the whole, to identify unique properties of the artistic medium used, and to understand the main idea intended by the visuals.

Visual Syntax

The way in which formal design elements, such as color, style, and typographical treatments are put together to form an overall layout.

Weight

Comparative worth of areas in a composition with much eye appeal, depending on their size, shape, color, location, and amount.

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- ¹ Charles Plummer, "Systems Analysis Simulation" (RIT, 1992), p. 8.
- ² Naomi Erdmann, interview by Rebecca Biddle, 15 December 2000.
- ³ Karen A. Schriver, *Dynamics in Document Design* (New York, NY: John Wiley & Sons, Inc., 1997), pp. xxiv–xxix.
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- ⁹ Nancy Midjley, interview by Rebecca Biddle, 14 December 2000.
- ¹⁰ Marlene Evans, interview by Rebecca Biddle, 18 December 2000.
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Appendix a

Goals

Objectives

Processes & Strategies

- I. To plan a project
- Ia. To organize the thesis project from beginning to end.
- Ib. To adhere to an organizational plan and schedule that will prioritize and sequence thesis events.
- Ia. To create a plan/chart that will enable me to view the thesis project as a whole.
- **la.** To understand how sequences work together and flow from box to box, inputs, processes, and outputs.
- IIb. To incorporate thesis advisor feedback about time schedules and plan organization.
- IIb. To create a plan that sequences thesis events within a sensible time frame; attention to deadlines and external factors such as public school schedules, teacher availability, etc.

Goals

To develop a prototype

Objectives

- Ia. To do research and gather information in order to easily recognize the value of visual syntax within text and its impact on reading comprehension.
- IIa. To improve the relationship between design and text.

Processes & Strategies

- Ia. Collect information from advisory committee and support group and access various individuals in the community: school teachers, children, reading specialists, and gather information through meetings and on-site observation.
- Ia. To read and analyze different articles and books concerning design elements and reading comprehension as well as look at specific textbooks used presently in the school system.
- IIb. To identify different examples of text that display successful and ineffective design solutions for basis of comparison.
- IIb. Present reading material in an interesting way that provides structure and clarity within the text.

Goals

III. To create an application

Objectives

- IIIa. To develop an application that will assist children in reading more easily and grasping the overall meaning of the text.
- **IIIb.** To open up the opportunity for children to use reading not only as an educational tool, but as a form of entertainment.

Processes & Strategies

- IIIa. To provide a design system for children that organizes visual and written elements.
- IIIa. To use color, illustrations, keywords, and exercises in an appropriate way.
- IIIb. Design a coaching aid that helps teachers to prepare their students for a book's organizational style.
- IIIb. Utilize appropriate illustrations and design elements.

Goals

IV.To evaluate the project

Objectives

- IVa. To assess needed changes, revisions, or improvements.
- IVb. To evaluate the successful and ineffective components within the parameters of the project.

Processes & Strategies

- IVa. To review the results of the testing model (prototype) and the impact it had on children, teachers, and reading specialists.
- IVa. To review the design of the testing model and make any necessary adjustments or revisions based upon committee feedback and documentation.
- IVb. To gather evaluations from committee members and outside viewers and assess the elements that successfully met project requirements.
- IVb. To assess individual accomplishment within the scope of the thesis project and determine if personal goals and objectives have been met.

Appendix a.2

Process Diagram

Plan, box 3.0

Inputs

Needs Assessment

Why does project need to be done?

Validation

Who validates project needs?

Design Development

How do project needs relate to design?

Planning Criteria

How to plan thesis development?

Processes

Organizing Participants

Who will be on committee?

Develop Time/Implementation Plan

When should specific things be done?

Need & Problem Statement

Mission statement, goals, and objectives.

Processes & Strategies

Methodology diagram

Distribution Plan

Who will I be testing?

Outputs

Evaluation Plan

What are some questions to consider?

Bibliography

Collect materials and sources

Validation

Is this project on track and ready to go?

Process Diagram

Development of Thesis, box 4.0

Inputs

Evaluation Plan

What am I trying to achieve?

Bibliography

What sources can contribute to this project?

Validation

Is there still a need?

Processes

Research and Gather Information

Research books, materials, meetings

Identify User

Who will be my testing audience?

Collaborate

Meet with committee and support group

Production Requirements

What will be required for production?

Prepare Prototype

Organize/design testing model

Outputs

Prepare Committee Evaluation

What are some questions that need answers for the success of this project?

Design Testing

Test model on students/teachers

Validation

Has this project remained focused on the need? Has their been enough done to move forward? Process Diagram

Development of Prototype, box 5.0

Inputs

Prepare Committee Evaluation

What are some questions that need answers?

Design Testing

Test model on students/teachers

Validation

Has this project remained focused on the need?

Has enough been done to move forward?

Processes

Application

Start to prepare final application

Assessment

Are their refinements? How was the testing?

Design and Production

Start preliminary sketches for application

Distribution/Testing

Do I need to retest?
What will be required for production?

Prepare Prototype

Organize/design testing model

Outputs

Evaluation Development

What do I want people to understand?

Evaluation Assessment

Will these questions help me refine my project?

Revision

What needs revising?

Final Application

Create thesis show application based upon work thus far.

Dissemination Plan

Process Diagram

Plan, box 3.0

What

Developing Design and Planning Criteria

- Needs
- Goals
- Objectives
- Processes and Strategies
- Time/Implementation

Who

- Active Members
- Myself

Committee Members

- R. Roger Remington
- · Latty Goodwin
- Bruce Ian Meader

Support Group

- Naomi Erdmann
- M. Suzanne Merz

How

Dissemination

Planning Report

Dissemination Plan

Process Diagram

Development of Thesis, box 4.0

What

Prototype Developing

- Research and Information Gathering
- User Identification
- Collaboration
- Production Requirements
- · Design testing
- Validation

Who

- Active Members
- Myself

Committee Members

- •R. Roger Remington
- ·Latty Goodwin
- Bruce Ian Meader

Support Group

- Naomi Erdmann
- •M. Suzanne Merz
- Teachers
- Students

How

Dissemination

Testing Model

Dissemination Plan

Process Diagram

Development, box 5.0

What

Design and Production

- Application
- Assessment
- Design
- Distribution/Testing
- Evaluation
- Development
- Evaluation
- Assessment
- Final Application

Who

- Active Members
- Myself

Committee Members

- R. Roger Remington
- · Latty Goodwin
- · Bruce Ian Meader

Support Group

- Naomi Erdmann
- M. Suzanne Merz
- Teachers
- Students

How

Dissemination

- Testing Model
- Written Documentation
- Final Application

Dissemination Plan

Process Diagram

Dissemination,

box 6.0

cess Diagram

What

Distribution of Thesis

Documentation

- Distribute
- Evaluation
- Development
- Written Report
- Thesis Show

Who

- Active Members
- Myself

Committee Members

- R. Roger Remington
- · Latty Goodwin
- Bruce Ian Meader

Support Group

- Naomi Erdmann
- M. Suzanne Merz
- Teachers
- Students

How

Dissemination

- Testing Model
- Written Documentation
- Final Application
- Charts

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Evaluation Plan

Process Diagram

Plan, box 3.0

What

Developing Design and Planning Criteria

- Needs
- Goals
- Objectives
- Processes and Strategies
- Time/ Implementation

Who

- Evaluation Members
- Myself

Committee Members

- R. Roger Remington
- · Latty Goodwin
- · Bruce Ian Meader

Support Group

- Naomi Erdmann
- M. Suzanne Merz

How

Evaluation Questions

- · Was my plan easily implemented?
- · Was my plan successful?
- Was my plan explicable and manageable to others?
- Did my plan help me to achieve my goal?

Evaluation Plan

Process Diagram

Development of

Thesis, box 4.0

What

Prototype Developing

- Research and Information gathering
- User Identification
- Collaboration
- Production requirements
- Design testing
- Validation

Who

- Evaluation Members
- Myself

Committee Members

- R. Roger Remington
- · Latty Goodwin
- Bruce Ian Meader

Support Group

- Naomi Erdmann
- M. Suzanne Merz
- Jane Munt
- Teachers
- Students

How

Evaluation Questions

- Was the information gathered accurate and relevant?
- Was the identified user successful within the testing parameters?
- Did the committee contribute good guidance and feedback?
- Was the product successful in meeting thesis requirements?
- Was the testing effective in communicating necessary information?
- Is there validation for further development?

Appendix a.7

Evaluation Plan

Process Diagram

Development, box 5.0

What

Design and Production

- Application
- Assessment
- Design
- Distribution/Testing
- Evaluation
- Development
- Evaluation
- Assessment
- Final Application

Who

- Evaluation Members
- Myself

Committee Members

- R. Roger Remington
- · Latty Goodwin
- · Bruce Ian Meader

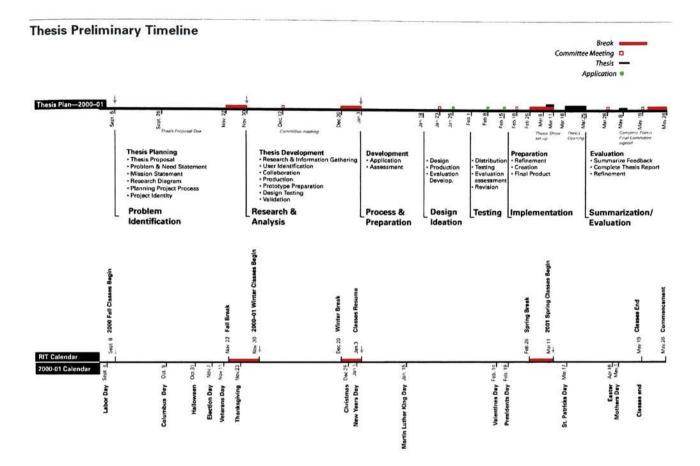
Support Group

- Naomi Erdmann
- M. Suzanne Merz
- Teachers
- Students

How

Evaluation Questions

- Did the application successfully represent the project's needs?
- · Was the application designed well?
- Did the project address the issue effectively?
- · Was the test easy to understand?
- Was the test successful with the parameters of the project?
- · Were the evaluation standards fair?
- Was the final application developed on time?
- Did the final application look professional?
- Did the final application successfully communicate the thesis project?



Matrix—Semiotic Design Model Nazareth College—Interview with Naomi Erdmann

Editorial—Syntax

1) What textbooks seem most effective? From your point of view-why?

1a) The textbooks most effective are the ones that have language consistency, color consistency, and appropriate and legible typography. The use of images and illustrations should be used to support material—but not cause too much distraction for the reader. Things should also be easy to find, and the use of highlighting or emphasizing a word should have good purpose.

2) What textbooks seem least effective? From your point of view-why? *

3) What would you like to see changed within textbooks? Why?

3a) Typography, organization, use of color, use of illustrations. So that everything is consistent throughout the book, making it easy for a child to understand what it is their reading.

4) Do you use other visual forms for teaching?

4a) The use of other visual forms for teaching material can be useful, but to put too much emphasis on this aspect of teaching does not help a student to fully understand how to use and learn from expository texts. Many students are too often taught with the use of extra visuals and not enough with the text—or are not taught how to use a text for that matter, so that once they reach high school where the extra visuals are abandoned for lack of time and interest, the student becomes lost. Because they hadn't been taught how to read and learn from a textbook, they are at a disadvantage when faced suddenly with having to learn from them.

Editorial—Semantics

- 5) In your opinion, are textbooks viewed as too challenging or not challenging enough?*
- 6) Assuming that there are a number of important and necessary components in a teacher's learning environment, what is the role of the textbook?
- 6b)Textbooks become very important later in a student's life. This isn't to suggest that a text can replace a good teacher or that a great teacher can't make a difference to a student learning new material—but the use of the textbook is inevitably an essential part of high school, so students need to learn how to best utilize them earlier on.
- 7) What do children enjoy the most about their textbooks?*
- 8) What textbooks are the hardest for children to understand—any particular subject matter?
- 8b) History and science seem to be the hardest subjects/texts for children to read and learn from because of their strong need for organization.

- 9) Are there certain trends within textbooks?*
- 10) Have you ever seen or used an exceptionally good textbook? If so, which one? Why was it good?*
- 11) What are some techniques you use to help a child who is having trouble comprehending a textbook's content?*

Editorial—Pragmatics

- 12) What are some examples of things that seem to give students the hardest time?*
- 13) What textbooks seem to be least effective? From your point of view-why?*
- 14) Do the way in which textbooks are assembled or made hinder comprehension?*

^{*} Responses addressed within answers to other questions.

Email from Jo Lightfoot

In response to an email sent asking about design firms currently working on reader-friendly textbook design outside the United States:

Subj: Re: Research on Thesis - Roger Remington Date: Wednesday, April 4, 2001 11:35:16 AM

From: jo@calmann-king.co.uk
To: Bidlay@aol.com

Hi Rebecca,

Yes, we have a department here which produces textbooks for the US college market and I had heard from them that the design of textbooks, formerly quite basic and "dumbed down", is now being readdressed by publishers. I know the editorial director of our college dept. is looking at improving the design of the books we do. I'll show her your email and ask her if she knows any more about this.

Best wishes,

Jo

Jo Lightfoot

Senior Commissioning Editor Design & Graphics

Laurence King Publishing 71 Great Russell Street London WC1B 3BP t: 020 7430 8850 f: 020 7430 8880 e: jo@calmann-king.co.uk

Email from Kate Noel-Paton

In response to an email sent asking about design firms currently working on reader-friendly textbook design outside the United States;

Subj: RE: Research on thesis - Roger Remington

Date: Wednesday, April 4, 2001 5:54:34 AM

From: KateN@RotoVision.com

To: Bidlay@aol.com

Dear Rebecca.

Thanks for your email, it's a very interesting area of research.

I would think that long-established text book publishers would use particular designers for revamping new editions of the same text books. Perhaps you could contact the editorial departments of companies like Thames & Hudson, Butterworth & Heinemann (Heinemann are the academic part), Mitchell-Beazley... Amazon's links from these should throw up some more too.

I'm sure that the design would affect the understanding, since this is the premise that RotoVision was built on. Brian Morris, who no longer works here, founded the company; you could mail him on SMTP:bmorris@pavilion.co.uk.

Hope that's useful,

Regards,

Kate Noel-Paton

Commissioning Editor

T: +44 (0)1273 716024 F: +44 (0) 1273 727269 Katen@rotovision.com www.rotovision.com

RotoVision SA Sheridan House 112-116A Western Road Hove BN3 1DD

Email from Brian Morris

Referred from Kate Noel-Paton in response to an email sent asking about design firms currently working on textbook design outside the United States:

Subj: Research on thesis - Roger Remington Date: Thursday, April 5, 2001 7:55:24 AM

From: bmorris@avabooks.co.uk

To: Bidlay@aol.com

Your email has been passed on to me being the founder and publisher at RotoVision. As the company has now been merged with another I have moved on and have started a new publishing company called Applied Visual Arts (AVA) Publishing S.A.

One of my basis premises has always been to split book making into 2 parts, the content (text and image) and then how to get the content down on a page in a form most easily digestible but also with sufficient excitement to make (seduce) people read it. This is particularly true for text and business books which are often unbelievably and unnecessarily dry and boring in their design and layout.

The results have been good from a sales point of view and created a style for RV and now I hope AVA. So I subscribe to your thesis especially as we deal in visual books and are taking the same idea across to business and text books.

How I can help I do not know but above all I would be very interested in your final thesis and perhaps getting your help on the first book in the new series probably a title like "Fundamentals and Concepts of Corporate Identity on the Internet" or whatever the editor comes up with when she joins us in June.

Does not hesitate to tell me how we can help - as this a subject dear to me heart.

Regards

Brian Morris

Brian Morris, Publisher Editorial and Sales Office AVA Publishing SA 56 Chapel Road Worthing BN11 1DQ West Sussex, UK Tel:+44 1903 204495. Fax:+44 1903 204499

Schriver, Karen, Dynamics in Document Design

My research suggests that between 1900 and 1995, document design was shaped dynamically by five interacting contexts:

- · Society and consumerism
- · Science, technology, and environmental awareness
- · Education and practice in writing and rhetoric
- Education and practice in graphic design and typography
- Professional developments in writing, graphic design and typography (Schriver, 16)

The Need For Document Design: Social and Technological Forces

[N]ations differ markedly in the conditions—social, political, economic, and technological—that led to the development of document design. For example, in some countries, document design emerged partly as a response to consumer and citizen groups who lobbied their governments for more comprehensible documents. In others, it sprang up because consumers outside the country began to hold higher expectations for product information coming to them from foreign manufacturers, forcing manufacturers to tailor (or localize) their documents for particular languages, cultures, audiences. In some countries, it arose opportunistically because government or corporate funding was available for certain types of document design projects, such as revisions of income tax forms, legal documents, or product documentation. In others, it grew as a result of a need to devise effective instructional materials used in "distance learning," that is, learning by mail, modem, or television. More recently, document design has developed in some countries because of economic trade agreements, such as those among partners in the European Economic Community. (Schriver, 17)



Pittsburgh Air and Space Museum

Sixteen-page proposal booklet to the Smithsonian Institution for support of a museum dedicated to civil aviation. This proposal describes in detail the architectural and interpretive plan for the museum, which was planned to occupy the historic 1952 terminal at the Pittsburgh International airport in restored space and in a major new addition. The book uses illustrated charts, maps, diagrams, and cutaway views to reveal the plan visually.

Information Gathered: Mission Statement

This is an appealing and successful way to introduce the project.

Overview

This is an excellent way to go over exactly what this book is about. The way the table of contents is shown here visually is a nice touch.

Organization of Content

The book has a open feel to it in the way they've used illustrations, diagrams, charts, and maps. Everything is easy to read because of the clarity in which they've organized their content. There isn't any extra "clutter."

Color

There is a consistent use of color throughout the book. Each page starts with the same design element—bands of color that introduce the section. The color within the band is then mirrored throughout the page within the headings of topics, labels of the diagrams, etc.

Typography

All of the written descriptive content within the book uses a serif typeface. The point size and the leading are large so that the whole right column of text is completely taken up. The line lengths are short, which adds to the reading quality. All of the labeling text (around the pictures, diagrams, illustrations) uses a sans serif typeface. The combination of both typefaces within this book effectively emphasizes the change in content. There is a subtle difference—yet it is not distracting to the eye. The sans serif typeface also helps with legibility—the smaller point size is used successfully within the areas that describe diagrams or illustrations.

The titles of each section is also sans serif, which helps grab the reader's attention. The sans serif typeface here is also easier to read reversed out within the band of color. The Proposal and Mission Statement page both have a section of text that has been pulled out and highlighted by its use of a bigger point size and italic typeface.



Steelcase—Application Guide Pathways-Based Products

Pathways is Steelcase's first major integrated product line in 10 years. The revolutionary system combines furniture and interior architecture. To explain the system to people who would use it—primarily interior designers and architects—AMS created a comprehensive Application Guide. This guide describes not only Pathway's unique features and capabilities, but also space-planning concepts and best practices. Because designers and architects are so visually oriented, pictures were essential—the more detailed and appealing, the better.

Information Gathered:

This guide is very visual—utilizing a lot of space for illustrations. Many of these illustrations take up the whole page with descriptions labeled around them. This is done clearly and minimally, so that nothing is confusing. They have used guide lines that point to an area highlighted—these guide lines also act as balancing guides for the text.

Organization of Content

Each area of the guide is divided with tabs. There is a beginning section entitled "How to Get the Most Out of This Book," which is a big help to readers just starting to explore all the content. This section has broken particular areas of the book down for the reader—for example there is an area that talks about the color-coding throughout the book and another that talks about the overview. Each area is then broken down through text and pictures to touch on the highlights of each section.

This guide also has an "Additional Resources" area at the beginning so if one needs information on printed Materials, Surface Materials, Software Tools, or Support, it lists the names of places or numbers. Each section (the tab page) has a table of contents as well so that the readers knows how each section is organized.

Typography

Since the book is primarily dealing with illustrating different products and then highlighting their purposes, the book is done using a sans serif typeface. The first few words or first line of the first sentence is bolder and then the text drops down to a lighter face. The typeface appears to be Univers, which has many different weights. The point size is relatively small because there are so many visual and textual elements on the page. The leading is also very spacious.



Steelcase—Technological Wiring and Cabling Guide

To unravel the intimidating jumble of wiring and cable hooking around the office, AMS developed a binder of booklets that explores a variety of wiring and cabling topics in a friendly, non-technical way. One booklet covers questions one should ask to upgrade, a second defines common terms to help one learn the language of technology, while others illustrate and give facts about common cables and connectors and describe wiring and cabling capabilities of Steelcase furniture. The guide was developed and tested with focus groups from various Steelcase furniture dealerships to ensure relevance of information and ease of use.

Information Gathered:

Organization of Content

This book has no excess pages. The book is kept small so as not to intimidate the reader. Each page has large type, as well as a field of color within the background and an interesting way of organizing the information so that there is plenty to look at and break down. The first page lists what the reader should expect in the upcoming pages—for example, the cable illustrations are shown at actual size on every page. There is also an overview at the beginning as well so that the reader can quickly compare common cable types. The design of each page has carefully kept the content sparse—not overloading the page with unnecessary technical jargon.

Color

Each page has a yellow field in the background as well as a green heading at the same place on every page. Underneath the green heading there is a red rule. Any title to a particular section is also done in green.

Typography

All the headers are a sans serif typeface—while the main contextual text is done in a serif italic face. This contextual text is in a bigger point size with spacious leading. Each descriptive text that is describing a process is done with a sans serif typeface.

Illustrations

There are a lot of illustrations and diagrams used throughout this guide, which serve to break up the content and add space and variety to the pages. Each page has a highlighted illustration—something rather large that breaks up the textual elements.

Appendix e.3



Cornell University

Guide for Writing Policies and Procedures

This guide was written to ensure that policy and procedure documents written by different authors adhere to a consistent format, both organizationally and typographically. It introduces a standard template that can be used to write any policy or procedure document and provides comprehensive guidelines for organizing and writing documents within the template.

Information Gathered:

Organization of Content

This guide is broken down into sections—starting with an overview describing three sections that introduce the reader to the material:

- "Getting Oriented" (to use when using the guide for the first time)
- "Writing Policies" (to use when writing or revising a policy document)
- "Reference" (to use for information on the mechanics of putting together a policy document)

The various sub-sections under each of the three main sections are identified with page numbers. A three-column grid has been applied throughout the book. On pages where an example is required, one column is occupied with text, a second column contains labeling for the example, and the third column is filled with the actual example. The columns are spacious, relieving any tension on the page. Each section has a bold heading that identifies the content on the page. If there is more than one page for the section, the running head says "continued".

Color

This entire guide is designed in black and white. Emphasis is made apparent through the use of bold rules and text.

Typography

The guide is designed using a sans serif typeface. For the running head, the descriptive text, and the main body text of the page, a serif typeface is used. The main body text is organized into short columns that occupy the left side of the page. The text never goes longer than two columns. Subheads are in a sans serif typeface.



Yakima 1994-1995 Product Catalog

Yakima Products manufactures a wide variety of racks and accessories used to carry luggage and sports equipment on cars, trucks, and SUVs. Information designer Richard Saul Wurman referred Yakima to AMS when the company was searching for ways to update and improve its product catalog—the most widely used marketing tool for the company's products.

In restructuring this information for Yakima, AMS defined key terminology, established consistent page structures that present consistent product information, and added lots of illustrations, all while keeping the distinctive Yakima style. AMS designed and delivered representative page templates that allowed Yakima to produce the final catalog in-house.

Information Gathered:

Organization of Content

The catalog begins with a introductory page entitled "Another Home-Grown User Friendly Yakima Catalog," which talks informally about the catalog, what Yakima sells, the service philosophy, and the mindful way products are designed to support a healthy environment. Another section defines some of the terminology used throughout the catalog that may be unfamiliar to the reader. The catalog as a whole is very dynamic and fun, yet, with all this activity there is still a sense of organization. On each page there is a section that is dedicated to the spirit of Yakima, such as a personal experience re-capped. This adds a nice balance to all the product descriptions.

Color

Each section is color-coded with bands that run along the top of the page. The title for each section is reversed out within this color band. After the first page of each section, the color bands run along the top edge of the page to indicate which section the reader is in. Within each section, all colors that are used coordinate with the section's color-coding—for example, in the blue section, all the rules or large text elements are also in blue. The colors have a natural feel to them as the company is conveying an outdoorsy theme.

Typography

All the headings in the catalog are a sans serif typeface. All text describing smaller details is in a serif face. The pages that have a personal story are designed to look as if the story were handwritten to give it a humanistic quality. Captions to the illustrations or pictures are a sans serif typeface.



Understanding USA—TED Conferences

This is a project that helps people grasp the most complex social issues facing America on the eve of the 21st century. The Understanding USA atlas is a comprehensive resource for public education. The atlas documents facts about 11 broad social issues including: who we are as people, demographics, politics, distribution of wealth, and elections, all in an in-depth, informative, and thoroughly engaging way.

The project is the brainchild of Richard Saul Wurman, noted information architect, author, and founder of the TED conferences.

Information Gathered:

Organization of Content

At the beginning of the book, there is an introduction called "Understanding Understanding". The sections within "Understanding Understanding" are entitled: "Understanding Issues", "Numbers, Polls", and "Acknowledgements." These sections define ideas and terms that the reader will need to understand throughout the rest of the book. Each section starts with a simple page outlining the content that will be discussed and illustrated as well as the designers who worked on it. There is a square at the top right-hand corner of the page that indicates which section the reader is in—these squares are also color-coded.

Color

The sections within this book are color-coded. At the beginning of the section, a heading displays the color the rest of the section is to follow. There is a square at the top right of the page that indicates the topic of that particular page. This square, along with the color, indicates the section the reader is in.

Typography

Near the beginning of the book, all text is a serif italic typeface. The introductory page of each section has the topic in a sans serif typeface and the descriptive question they will address within the section in a serif italic face. All the text appearing at the bottom of the page that highlights key points is in a serif italic typeface. All text on the page describing the illustrations or pictures is in a sans serif face.

Illustration/Diagrams/Charts

The illustrations, diagrams, and charts are used predominantly throughout the atlas. They are visually very interesting. All the descriptive information about the illustration or chart is very clearly written so as to avoid any confusion. Each diagram or chart is clearly explained.



Fortune Guide to Investing in the 90's-Richard Saul Wurman

In collaboration with Information architect Richard Saul Wurman, AMS developed the Fortune Guide to Personal Investing, a handbook that explains all aspects of investing—stocks, bonds, mortgages, futures, risk, and more. Working with a team of writers and financial experts, AMS helped distill complex financial concepts into smaller "bites" of information. Illustrations and colorful diagrams accompany text, making topics less intimidating and more comfortable for readers.

Information Gathered:

Organization of Content

This book starts with an introductory page explaining what the book is about and how it can be used, the "what is" aspect of the book instead of the "how to". The structure of the book focuses on the questions and answers. Each page of information is organized with the use of particular symbols.

Color

The color throughout the book is dynamic and bright, which adds to the friendly, less formal quality the designers are trying to achieve. There are certain color-coded symbols that are that mean or explain different things. For example, a yellow folder is used for "Sources: suggested reading material." A red question mark indicates a "Question-and-Answer" format; a purple circle is a symbol for "Did you Know?" about some interesting tidbit of information. A green cube indicates "Number information in a graph, table or other number facts", a yellow starburst signals a "What it says to what it means" idea, and lastly a blue triangle means "Furthermore," an explanation of an issue taken from the main text that expands it even further. This symbol system acts as the main color-coding system throughout the book.

Illustrations/Maps/Diagrams/Charts

Most of the maps, diagrams, charts, or any other numerical notation used within the book is done in a very clear way. Bright colors are used throughout the book as well to help attract attention and to give the book a dynamic, playful, and friendly feel.

Typography

Nearly all the text within this book is set in a serif typeface. Within the typeface however, there are many different weight usages. Any quote that is highlighted within a bubble shape is always set in a serif italic face—this is to draw attention to the quote and distinguish it from the rest of the text. Any paragraphs of information are also set in a serif typeface as well to distinguish it from the rest of the financial information. Most of the text within the diagrams, charts, or matrices are all set in a sans serif typeface.

Matrix—Semiotic Design Model Northside Elementary School—Interview with Nancy Midjley 12.14.00

Editorial—Syntax

1) What textbooks seem most effective? From your point of view—why?

1a) The textbooks most effective are the ones that have language consistency. The use of images and illustrations make a difference to children as they can often look into and read the pictures and create their own scenarios. The pictures help children by allowing them to connect with the story before they read it.

2) What textbooks seem least effective? From your point of view-why?

2a) The textbooks least effective are the ones that have language inconsistency; for example, one thing is referred to in two different ways. The students tend to pick up on this type of inconsistency and become confused. Questions at the end of the chapters are also another area that can confuse readers—the language could be improved. What are they asking? How do they phrase it?
Is it consistent?

3) What would you like to see changed within textbooks? Why?

3a) Changes within textbooks could start by using more images that pertain to the chapter's content. A few pages in the beginning of the book to help the students understand the way in which the book will be organized could benefit both the teacher and student.

4) Do you use other visual forms for teaching?

4a) Yes, other visual forms for teaching are used—such as graphic organizers, which are charts, diagrams, and pictures used for students to organize their thoughts, make connections, and learn terminology. Color-coding is also used for organizing material.

Editorial—Semantics

5) In your opinion, are textbooks viewed as too challenging or not challenging enough?

5b) Textbooks vary from subject to subject. The learning level of the children in the classroom is also very different so that what one child finds challenging another will not. Teaching is the essential element—you cannot solely rely on the textbook to teach the subject matter. The author has to think about the way in which a student thinks and learns, and there has to be a fine balance between content that is too hard and too easy.

6) Assuming that there are a number of important and necessary components in a teacher's learning environment, what is the role of the textbook?

6b) Textbooks are used as a resource. And although textbooks are important, teaching is the essential element. The use of other material to support the subject being studied, such as stories, drawings, and charting character identification (diagraming) can allow the child to learn all facets of the subject matter.

7) What do children enjoy the most about their textbooks?

7b) Children seem to enjoy the pictures within texts—which helps them to identify with the characters before reading the story. The use of color within the text also seems to be a positive reinforcer as well by indicating to the student the shift of content and the emphasis of key words.

- 8) What textbooks are the hardest for students to understand—any particular subject matter?
- 8b) History and science seem to be the hardest subjects/texts for children to read and learn from because of the strong need for organization.
- 9) Are there certain trends within textbooks?*
- 10) Have you ever seen or used an exceptionally good textbook? If so, which one? Why was it good?
- 10b) A book on immigration was an example of an effective textbook. The typography in the book is easy to read—big words with a lot of spacing and good use of pictures. This book, however, is not considered a textbook per se, but more of a book used to support social studies.
- 11) What are some techniques you use to help a child who is having trouble comprehending a textbook's content?
- 11b) Techniques used with children who are having trouble comprehending textbook content are graphic organizers, color-coding, and diagrams. Some students prefer to see the content visually while others need the content organized in different ways.

Editorial—Pragmatics

- 12) What are some examples of things that seem to give children the hardest time?*
- 13) What textbooks seem to be least effective? From your point of view-why?*
- 14) Do the way in which textbooks are assembled or made hinder comprehension?*

^{*} Responses addressed within answers to other questions.

Matrix—Semiotic Design Model Thornell Road Elementary School—Interview with Marlene Evans 12.18.00

Editorial—Syntax

1) What textbooks seem most effective? From your point of view—why?

1a) The textbooks that seem most effective are ones that have good content, for example, good stories. Textbooks that include pictures are also effective in that the pictures help the child understand the story. The integration of poetry with stories is also beneficial as it introduces the child to a new type of reading material. Plays have also been popular with the students as well as with the teachers. The children are able to recognize the role of the character, eliminating the need for the teacher to remind the child who is reading.

2) What textbooks seem least effective? From your point of view—why?

2a) Children seem to have the most difficulty with science and social studies texts because of their uninteresting layouts and condensed content. According to teachers, McGraw Hill texts have repeatedly caused problems. Their textbooks are overly busy, often times too easy, and the content lacks enough interest to keep the children's attention. In one example, for one grade level, McGraw Hill has seven or eight different teaching manuals—too much information to possibly cover in one year's time.

3) What would you like to see changed within textbooks? Why?

3a) Having the questions at the beginning of sections of text or divided within the sections might be of better help to children, so that they aren't constantly having to page back to the questions and so that children know what to look for within sections. Vocabulary words at the beginning of a chapter might also be of help so that they can recognize the words not known before. Another suggested change would be to divide the text into chunks so that each section is much more digestible to the student. This chunking of information would be easier for children to comprehend sometimes difficult or new material. Possibly having a new word's pronunciation would also benefit the child instead of having the pronunciation appear only within the teacher's manual. Using a tape for pre-reading material was also a suggestion—that way a child could get a taste of what is to come. Line length could also be improved in texts as children often skip down a few lines while reading. Other visual cues could also be incorporated such as red periods to indicate the end of a sentence.

4) Do you use other visual forms for teaching?

4a) Pictures, graphic organizers, color-coding, and organizational charts. I also use a "Think Board," which is used to diagram the who, what, where, when, and how of a story as well as sequencing the beginning, middle, and end. This has really helped children organize their thoughts either in reading or in the beginning of writing an essay or a story.

Editorial—Semantics

5) In your opinion, are textbooks viewed as too challenging or not challenging enough?

5a) Some textbooks differ from publisher to publisher. Some texts are too challenging to some children while others are just fine. There is a strong need for different levels of texts for students—texts made particularly for both the advanced students and slow readers/learners. Although there would be some overlap of advanced students preferring slower material and vice versa, it would give the slower learners the chance to work toward something while allowing the advanced learners and readers the chance to excel and not be stifled. In my opinion, first graders should concentrate on reading, writing, and arithmetic alone—this would mean pushing down the curriculum.

6) Assuming that there are a number of important and necessary components in a teacher's learning environment, what is the role of the textbook?

6a) Although the textbook is used in the classroom, it is mainly for reading material. The teachers in these grade levels don't necessarily push the textbook onto their students because they believe that they can learn the subject matter in other ways as well.

7) What do children enjoy the most about their textbooks?

7a) The children enjoy the graphic elements and the pictures within their textbooks.

8) What textbooks are the hardest for students to understand—any particular subject matter?

8b) History and science seem to be the hardest subjects/texts for students to read and learn from because of amount of content to understand and the lack of interesting layouts.

9) Are there certain trends within textbooks?*

10) Have you ever seen or used an exceptionally good textbook? If so, which one? Why was it good?

10a) I really enjoy the reading textbooks I've been using. I like the stories and poetry they have included as well as the pictures, colors, and graphics.

11) What are some techniques you use to help a child who is having trouble comprehending a textbook's content?

11a) Some techniques used to help a child having trouble reading is to use a tracker—which is a piece of paper that separates one line of text from another. Children often skip down lines of text and lose their place without it, as well at move quickly through a line—one word to another without comprehending the full sentence and therefore missing the meaning of the text.

Editorial—Pragmatics

- 12) What are some examples of things that seem to give children the hardest time?*
- 13) What textbooks seem to be least effective? From your point of view-why?*
- 14) Do the way in which textbooks are assembled or made hinder comprehension?
- 14a) Possibly taking some stories from the bigger textbook and making smaller textbooks could benefit the children. The size would be one major component—smaller books would allow the children become more intimate with the text. The child would also feel as if he or she had a whole book and accomplished something to be proud of—it would serve as positive feedback.

^{*} Responses addressed within answers to other questions.



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02/10/2001

Rebecca Biddle Graduate Student 236 Oxford Street Apartment 6 Rochester, NY 14607

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Wid Dings

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Appendix h

Items Included within the Chapter:

Textbook Audit

Creating America: A History of the United States

Unit 8-1919-1960

Depression, War and Recovery

Chapter 25: The Roaring Twenties

Section 1 The Business of America Section 2 Changes in Society

Section 3 The Jazz Age and the Harlem Renaissance

Interact with History

(Warm-up exercise) This will help you imagine what it was like to live in the past.

Look at pictures and decide how you would respond to the question.

Timeline

Includes the USA and World dates per section 1919-1929.

Setting the Stage

(Warm-up exercise) This will help you start thinking about the chapter's theme and time period. It also teaches a reading skill and gives you a graphic organizer to help

you take notes.

Terms and Names

(Start reading) First, read the Terms and Names in the bar at the top of the first page. Also, read the sentences labeled Main Idea and Why It Matters Now. They tell you

what's important in the material you're about to read.

One American's Story

Features one person from the past—of that section's time period—and relates

a story.

A Voice from the Past

A section sometimes in the beginning of the text, sometimes inserted within that is an excerpt from the person within the American's Story. This section is always

shown in an area that is gradated blue.

Strange but True

This is an area where they highlight a fact according to a section that is strange

but true.

Quotes

Periodically they have pulled out quotes from the text to highlight. They make these

a bigger typeface and italic.

Diagram of an Auto Assembly Line This is a simple graphic diagram of the way an assembly line works.

Reading History

Drawing conclusions, Recognizing Effects, Summarizing: questions that allow you to stop and make sure you understand what you just read. You can also use them to

review for a test.

Vocabulary

Give the definition of words that you may not know.

Background

Explain some of the history behind an event.

Images with Captions

Section Assessment

Complete all the parts of the Section Assessment. They will help you review the section.

Beginning of the book has the following sections:

Features
Voices from the Past
Historical Maps
Charts and Graphs
Time Lines and Infographics
Themes of American History
Reading to Remember
Geography Handbook

- Book is broken down into Units (9).
 Each unit is broken down into chapters (32).
 Each chapter is broken down into sections (5 at most).
- Each chapter's units are a specific color (shown within the numeral bullet).
- Each chapter's sections are color-coded to that chapter's bullet.
- Each chapter is a different color.
- The order of color within the chapter is different from chapter to chapter.
- All the section headings are in the same typeface and in the same color red.
- Each chapter starts with a section designated for "Interact with History" and questions entitled "What Do You Think?"
- Each chapter starts with some kind of graphic or image that relates to the following sections.
- Each chapter starts with a question that has been separated and enlarged and set in italics. This question is supposed to frame the sections to follow.
- · Each chapter starts with a timeline at the bottom of the page.
- All the labels for the pictures use the bubble square.
- Each section's heading is in white—same typeface as the main headings within the text.
- Each section's button/bullet with the section number is in yellow.

Global Elements within the Text

- Each section has a "Main Idea" and a "Why It Matters" area at the top with a yellow bar, reversed out in whatever color the section is in.
- · Each section has terms and names appearing at the top right corner.
- Each term or name listed at the beginning of the section appears within the text bolder and underlined.
- All the text that is not a heading is set in a sans serif typeface.
- All the text within the section under the main red headings is set in a serif typeface.
- "One American's Story" text is always set in a sans serif typeface.
- The beginning of each paragraph, underneath the red heading, is not indented.
 All paragraphs that follow are.
- "A Voice from the Past" always appears within a blue gradated box. The typeface is always sans serif.
- All captions, labels, or headings for diagrams, charts, maps, or images are always set in a sans serif typeface.
- The "Reading History," "Vocabulary," and "Background" excerpts are always pulled
 off to the side of the text—whether it is to the inside of the column or the outside
 seems to vary.
- All captions to the pictures are stacked instead of running lengthwise.
- Each section's "Assessment" area has "Terms and Names" again, "Taking Notes,"
 "Main Ideas" and "Critical Thinking." They also have an activity option as well.
- There is only one column used throughout the text. The width of the column varies according to the images, graphics, and other design elements that are used throughout the page. Often the text runs around the images.
- Each chapter has a detailed assessment at the end of the chapter—that includes "Terms and Names," "Review Questions," "Critical Thinking," "Interact with History," "History Skills," and "Alternative Assessment."

Elements to Redesign

- Possibly use the same color system in the same order throughout each chapter.
- Change the typeface and possibly the color for the headings of the chapter and the headings throughout the sections. Possibly use a tint of the color the chapter's heading is set in.
- Emphasize the sections that are listed at the start of each chapter as some are easily legible and others are hard to find.
- Create a different colored bar running along the top of the start of each section the bar that is currently being used is a bit too busy, adding to the visual clutter.
- Improve/redo the chapter collages at the beginning of each chapter (under the "Interact with History" feature)—many are poorly composited.
- Improve the speech bubbles that are used throughout the chapters to label or describe a graphic or diagram. If speech bubbles are to be used they should be used to indicate that someone is speaking.
- Double check the quote used in the beginning of the chapter to make sure that the flavor it gives to the chapter is relevant and carried through so that it's not misleading.
- Check the consistency (dates) of the timeline with the two main dates on either side.
 For example, the dates within the timeline should fall between the two primary dates on either side—they should not fall after the last date shown (see timeline on p. 706).
- Get rid of visual gaps, spaces within the timeline, or make clear why they're there.
- Possibly redo the timeline.
- Create a grid system that the entire chapter can adhere to no matter what pictures, graphic elements, or maps are used.
- Try to fix some of the awkward column widths created by picture runarounds.
- Indent the first sentence of the paragraph or do not indent any sentence and instead insert a space.
- Insert some space between the red headings and the beginnings of the paragraphs.
- Possibly change the yellow bars and headings on the colored bar running across the top of the page at the beginning of each section.
- Create a separation within the bar that has both "Main Idea" and "Why It Matters" or use an arrow to emphasize the cause and effect idea.

- Make the "Terms and Names" more noticeable at the beginning of each section.
- Keep consistency with regards to "A Voice from the Past"—sometimes it is used within a paragraph and sometimes at the beginning. I will attempt to pick one or the other.
- Try and create picture captions that are longer rather than stacked as they tend
 to get confusing with the other smaller stacked elements, such as "Reading
 History," "Vocabulary," and "Background" features.
- Take away the letters that are associated with the "Reading History" excerpts as they lead one to think that these same letters refer to something elsewhere in the chapter.
- Improve some of the typographical issues, such as upper case vs. lower case for some elements, sense-breaks, spacing, etc.
- Make sure there is consistency between full-bleed images within the section and images that stop at the baseline of the text.
- Create a better system for presenting quotes that have been pulled out of the text.
- · Check to make sure facts, products, and dates are accurate, if possible.
- Check to make sure that all the extra elements on the page are directly related to the content and that they add to the content instead of distract.
- Make sure there is a marriage between the text and other elements on the page.
- Make sure that content that should appear in the chapter does so.
- Some chapters have an excerpt written after "One American's Story" and before the
 first red heading to summarize what the chapter will be about (see p. 713).
 This is not present in all the sections nor is it treated any differently than the
 preceding text. Change typography of this and its placement.

Unit 8—1919–1960 Depression, War, and Recovery

Chapter 25 Outline

Chapter 25: The Roaring Twenties

Section 1 The Business of America

Section 2 Changes in Society

Section 3 The Jazz Age and the Harlem Renaissance

I. The Roaring Twenties

A. The Business of America

- 1. One American's Story—Harding
- 2. Harding and the "Return to Normalcy"
 - a. A Voice from the Past
 - b. Strange but True
 - c. Reading History
- 3. Coolidge Takes Over
 - a. Pulled-out Quote
 - b. Vocabulary
- 4. Technology Changes America
 - a. Reading History
 - b. Automobile Assembly Graphic Diagram
 - c. Image and Caption
 - d. Reading History
- 5. The Air Age Begins
- 6. Section Assessment
- 7. Technology/Art

B. Changes in Society

- 1. One American's Story-Edna St. Vincent Millay
 - a. A Voice from the Past
- 2. Youth in the Roaring Twenties
 - a. Picture and Caption
 - b. Background
- 3. New Roles for Women
 - a. A Voice from the Past-Margaret Sanger
 - b. Reading History
- 4. Prohibition and Lawlessness
 - a. Background
- 5. Changes for African Americans
 - a. Reading History (2)
 - b. Image with Caption
- 6. A Divided Society
 - a. Full-Bleed Image with Caption
 - b. Reading History
- 7. Section Assessment
- 8. Art/Music

C. The Jazz Age and the Harlem Renaissance

- 1. One American's Story-Louis Armstrong
 - a. A Voice from the Past
- 2. More Leisure Time for Americans
 - a. Reading History
- 3. Mass Media and Popular Culture
 - a. Celebrities in the 1920's
- 4. A Search for Heroes
 - a. Reading History
 - b. America's History Makers-Lindbergh and Earhart
- 5. The Harlem Renaissance
 - a. History Through Art
 - b. Painting with Caption
 - c. Vocabulary
 - d. Reading History (2)
 - e. A Voice from the Past-Sinclair Lewis
- 6. Section Assessment
- 7. Art/Technology

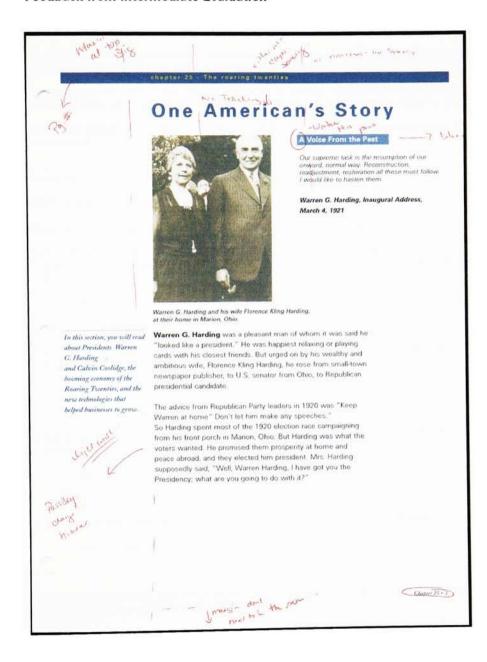
D. Geography in History

- 1. African-American Baseball Leagues
 - a. Artifact Files
 - b. On-Line Field Trip
 - c. Connect to Geography
 - d. Cities with Notable African-American Baseball Teams 1920s, 1930s
 - e. Map
 - f. Images with Captions

E. Chapter Assessment

- 1. Visual Summary
 - a. The Roaring Twenties
- 2. Terms and Names
- 3. Review Questions
- 4. Critical Thinking
- 5. Interact with History
- 6. History Skills
- 7. Alternative Assessment

Feedback from Intermediate Evaluation



Preliminary Questionnaire—Draft 1

Explanation

I am interested in finding out whether redesigning a textbook using a strong systematic approach with careful attention to typography, layout, color, and illustrations can improve reading comprehension for students.

Fo	For this experiment I have chosen two chapters from an eleventh grade history textbook. One chapter has been redesigned according to basic design criteria, while the other has not been altered in any way.						
	Please read through the two excerpts from the chapters provided for you and please answer the uestions below.						
Q	uestion	S					
W	hich ch	apter do y	ou prefer?	Why?			
PI	ease an	swer the	following (questions based upon the chapter you preferred:			
1)				pter seem effective in communicating the subject matter? shs, the way in which the pictures, diagrams or illustrations are incorporated,			
		yes	no	comments:			
2)	Is it ea		to disting	uish between primary information of importance and secondary			
		yes	no	comments:			
3)	Is the t	typograph easy to d	y easy to r listinguish	ead? Are the changes within the typography (for example bolder or italicized? Are the reasons these words are different clear to you?			
		yes	no	comments:			
4)	Is the	way in wh		apter is organized seem effective and easy to understand?			
		yes	no	comments:			
5)	In your particu	opinion, i lar section	s color use ns, words	ed effectively and appropriately within the text? (E.g., is the color distinguishing or ideas successfully?).			
		yes	no	comments:			
6)	Do you	ı feel like t	the picture	es, diagrams or illustrations are integrated within the text harmoniously?			
		yes	no	comments:			

7)	In your opinion, do you think the pictures, illustrations or diagrams are easy to understand and are appropriate for the subject matter?						
	yes	no	comments:				
8)	Is the text eas	y to read?	Is there any part of the text that is hard to read or understand?				
	yes	no	comments:				
9)	Is there enoug of text "pop-o	gh contrast ut" enoug	among the part of the text? For example, do the titles for the different sections h? Are you easily able to "pick-out" particular sections?				
	yes	no	comments:				
10) Does the leng on the page?	th of the li	nes seem too long or too short? Does there seem to be enough white space				
	yes	no	comments:				
11) Overall, does	there seen	n to be an underlying structure to the text within this chapter?				
	yes	no	comments:				
12) Is there consis	stency bet	ween headings, italic or bolder words, pictures, diagrams, etc.?				
	yes	no	comments:				
13) Does the cont	ent of the	text seem appropriate for the grade-level and subject matter?				
	yes	no	comments:				
14	14) How does the text look to you overall? Fun, confusing, easy to understand, interesting?						
	yes	no	comments:				
15) What is your o from the text?		he chapter? Do you like it? Dislike it? Do you get any particular feeling				
	yes	no	comments:				

Preliminary Questionnaire—Draft 2

Explanation

Comments:

I am interested in finding out whether redesigning a textbook using a strong systematic approach with careful attention to typography, layout, color, and illustration can improve reading comprehension for students.

For this experiment, I have chosen two chapters from an eleventh grade history textbook. One chapter has been redesigned according to basic design criteria, while the other has not been altered in any way.

Please read through the two excerpts from the chapters provided for you and rate them from 1—strongly disagree, to 5—strongly agree.

80 E8005M	gly disagree, to 5—			
1 (strongly	2 disagree)	3	4	5 (strongly agree)
Question	าร			
pictures,		ons are incorporated,		he page, the way in which the terpt seems effective in
1	2	3	4	5
Commer	nts:			
		in idea of the chapte porting text, such as		t is easy to distinguish from the c.)
1	2	3	4	5
Commer	nts:			
		this excerpt is easy are easy to distinguis		thin the typography, for example
1	2	3	4	5
Commer	nts:			
4) This c	hapter is organized	in an effective way.		
1	2	3	4	5
Commen	its:			
5) The colo and effec	r (distinguishing par ctively.	ticular sections, wor	ds or ideas) within th	nis excerpt are used appropriate
1	2	3	4	5

6)	Pictures, illustrations, charts, and/or diagrams are integrated within the chapter harmoniously.					
	1	2	3	4	5	
	Comments:					
7)	There is contrast between part of the text. For example, the titles for different sections of text "pop-out" and are easy to "pick-out".					
	1	2	3	4	5	
	Comments:					
8)	The content of this excerpt seems appropriate for the grade-level and subject matter.					
	1	2	3	4	5	
	Comments:					
9)	Overall, this excerpt seems to have an underlying structure.					
	1	2	3	4	5	
	Comments:					
10)) Overall, this ex	cerpt looks interesti	ng and attractive to y	you.		
	1	2	3	4	5	
	Comments:					

Thesis Evaluation: Nazareth College Graduate Students

Rochester Institute of Technology Graduate Graphic Design Program Thesis Evaluation Rebecca Biddle 442-5075 bidlay@aol.com

The Impact of Visual Syntax on Reading Comprehension

Exp	-	-	-	-
E XI)	210			•

I am interested in finding out whether redesigning a textbook, using a strong systematic approach with careful attention to typography, layout, color and illustration, can improve reading comprehension for students.

For this evaluation, I have chosen one section from an eighth grade history textbook. There are two versions of this section of the textbook, one I've labeled Format **A** and one Format **B**. One section has been redesigned according to basic design criteria, while the other has not been altered in any way.

Please look through the two formats provided for you and choose the answer that best reflects the questions below.

Circle A for Format A Circle B for Format B.

Questions - Please feel free to write additional comments on the back of this sheet.

Questions - Please feel free	to write additional comments on the back of this sneet.
Which format is easiest in a from secondary information	listinguishing primary information (the main idea of the chapter, (the supporting text, such as excerpts, quotes, etc.)?
Α	В
Comments:	
2) Which format seems easier	to read?
Α	В
Comments:	
3) Which format seems more	effectively organized?
Α	В
Comments:	
4) Which format uses color (d. more appropriately and effe	istinguishing particular sections, words or ideas) ctively?
Α	В
Comments:	
5) Which format do you prefe	r? Why?
Α	В

Appendix k.1

Thesis Evaluation
Back Page:
Nazareth College
Graduate Students

Rochester Institute of Technology

The Impact of Visual Syntax on Reading Comprehension

Questions, cont.

- 6) What is the function of textbooks within your classes? Do you rely heavily on them for the main source of information, or do you use other activities to teach the material and use the text as a secondary source of information?
- 7) Is there a particular type of textbook that you like the best? If so, which one. Why?
- 8) If you could change the way textbooks are presented, how would you do so?
- 9) Do you think the presentation of information to students is important? Do you think it can really make a difference in a students comprehension ability?

Evaluation Answers: Nazareth College Graduate Students

1) Which format is easiest in distinguishing primary information (the main idea of the chapter) from secondary information (the supporting text, such as excerpts, quotes, etc.)?

People who preferred A: 30

Comments:

- · "Much clearer."
- "Primary information is at the top and around the outside of the page."
- "Like the way sections are divided to provide more space and make it less confusing to the reader."
- "The extras are nicely organized in columns in the margins, rather than all over the page for B."
- "Quotes are more appealing."
- "Liked the way 'Main Idea' was stated and 'Why It Matters."
- · "It's not as busy, more balanced."
- "I don't like how the "Voice from the past" separates the main text in B."
- "Easier on the eyes (not so unorganized). B—don't know where to look."
- . "I like the running head at the top of the page (title, topic)."
- "Well layed-out. Guiding question and Main topic easy to find."
- "I like the quotation placed by the picture and not immersed in the text. It makes a strong connection for the poor reader to work with."
- · "Text in central location helpful."

People who preferred B: 2

Comments:

. "Having pictures, captions on the sides is effective."

2) Which format seems easier to read?

People who preferred A: 30

- "Ex's on sides of pg.—pertinent information in middle."
- "Not so cluttered."
- "At an initial look, A seems to be more 'friendly' and less threatening."
- "Paragraphs are separated with a space making it look like smaller chunks at a time. Ilike the body of the text in the center of the page."

- "Consistent throughout—main text in the middle of the page."
- "I like how you didn't break up the text to put in added info. i.e: pg. 721 in form B is interrupted with
 'A Voice from the Past' is annoying and interrupts the reading of the section. Form A has it on the
 right side. Much better."
- "Keeping whole sections on 1 page benefits the reader. The only problem with this was on Harlem Renaissance. Spacing is great!"
- "I really like the layout of the text—however I would increase the font size."
- "Color on format A was actually more conducive to reading and overall viewing."
- "Except for the dates—the numbers are easier to read in format B (1920's instead of 1920s)."
- · "Less information on the page."
- "The book (form B) has print "all over the page" and doesn't seem balanced on the page."
- · "Seems less threatening."
- "I like the space between each paragraph— it's not as overwhelming—it 'looks' easier to read."
- "The separating of the paragraphs makes it easier to read. Putting the 'extra' sections such as,
 'The Biographies' and 'A Voice from the Past,' help the main text flow better."
- "In A, the information is linear—more important info —main idea on sides."
- · "Color was very nice. It made the reading easier."
- "Less cluttered, consistent margins, good spacing, less overwhelming."
- · "Layout is better."
- · "Text from one topic per page."

People who preferred B: 2

Comments:

- · "Larger font."
- · "Bold headlines, not busy, very readable."

3) Which format seems more effectively organized?

People who preferred A: 30

- "More consistent. Format B is appealing, yet the pages are not set up consistently—important for some students."
- "Eyes follow top-down/left-right—structure, form B—eyes roam all over pg."
- . "Neater, not as cluttered, easier on the eyes."

- · "Less overwhelming, more visually appealing."
- · "Form B seems overwhelming."
- · "Each section is on its own page."
- "I think it's beneficial to have one topic per page and not all cluttered together. Good type size and space between paragraphs."
- "Format A appears to keep everything nice and concise, with all of the extras in margin—this would work well with some reading strategies."
- "It flows better; I would consider placing the questions in the same spot throughout the text."
- "On B there was too much information in one section. Format A was more visually appealing."
- "The pictures are on the top of the page or off to the side instead of being wrapped around the text."
- "The lines above the headings make it easier to distinguish where a new section begins."
- "I like the italicized info. in the corners along the border. It leads the eye to info."
- "B seems to put more information on a page—a lot of blank space on form A.I wonder if the book would be too thick with form A."
- . "Each section seems to be on its own page so that sections are easier to read and understand."
- "Form A seemed more organized than "B" because the main text flowed uninterrupted by "extra facts."
- "In A you are able to follow info easily from top to bottom—B, information is all over the page, could tend to be a distraction."
- . "Easy to find material."
- "Less cluttered, consistent organization. I like picture re: Harlem Renaissance at top, not interrupting reading."
- · "Better use of pictures, terms."
- "I like the way the text is in the middle."

People who preferred B: 2

Comments:

· "Larger font is easier to read for most people."

4) Which format uses color (distinguishing particular sections, words, or ideas) more appropriately and effectively?

People who preferred A: 27

Comments:

- . "Form A better identified Main headings by consistently making them one color."
- . "B uses too many distracting colors."
- . "Easy to find material."
- "I like the use of color, calming, but not just black and white."
- "The section on top that states chapter and section I like because it would easier to find, research or reference to."
- . "The color of B is too bold, it hurts the eye."
- . "Color of B is distracting."
- . "The color difference seems due to copy quality."
- "Uses a more subdued coloring. The bright colors in form **B** distract the reader."
- "Good color, not too bright and distracting, not too dull either. I think the vocab. words should be a
 different color opposed to bold faced."
- . "The colors are more sensitive to the eye."
- "Less is more! Softer colors were less distracting."
- · "Format A is more soothing/pleasant to read."
- · "Softer colors."
- "Not as many colors as B. I think A is less distracting."
- "Colors are not as bright and overbearing in form A. The chapter title and section at the top of the page would be helpful in locating chapters."
- "I like the vocabulary terms and important points in the border—on both texts."
- "Much more consistent and easier on the eyes with color."

People who preferred B: 5

- "Love the red, and underlined bold print."
- . "Colors in format B were more prominent-yet too harsh at times."
- "I think using the same color throughout A will become boring to a reader—over life of the text.
 Format B can use too much color."
- "Pictures are brighter, more clear, different color font."

5) Which format do you prefer? Why?

People who preferred A: 30

- "Form A was easier to follow because the text way layed out better and headings were consistent."
- "One main topic on each page. Important vocabulary bold print/outlined pictures/illustrations appropriately placed, sub-headings easy to read."
- "Easier to follow. Clean continual patterns. I would like to see the question asked on each page to be in the same place."
- "I like the topic per page. Photos are spaced better with labels clearly adjoining them. I like the
 consistent margins. Overall, it's less overwhelming."
- "I prefer A because of one topic on each page. The margins are consistent."
- "The only thing I don't like is both left and right sidebars filled with extra info. think it's too distracting
 from the primary text. I like where there are questions in the sidebars which help the students to focus
 on the primary text. Example: I prefer p.719 bios at bottom—less distracting to main text in A."
- . "It is easier to read and is easier on the eyes."
- "The text (A) is so well organized! A topic remains on one page. The photos and pictures are not distracting (as in format B) but add to the content. There is more white space on format A which is more appealing and less intimidating. There is a comfortable feel to the format A text which is helpful to the reader."
- · "There were not pictures, objects, ideas, etc. all over the page. Everything was organized."
- "Info. on one topic is on one page. Student doesn't have to turn pg. for additional info."
- "Most definitely!"
- "Organized, not crammed with tons of words, pictures and captions."
- "Smaller pieces of information on a page."
- "Seemed better organized—easier to look at and work through."
- "It is more pleasing to the eye. The text is not overwhelming—paragraphs are spaced. I like the information on the sides."
- "More organized."
- "Much more appealing to the eye. Vocabulary is set to the side for instant recall."
- · "Good use of margins."
- "I might think it was too boring through a whole text."
- "Great layout, use of color, and organization. Great spacing between paragraphs."
- "Text is easier to read. Colors less distracting."

- "The text is simpler. It is more clearly organized."
- "It is more spread out, there is not as much information on a page. The pages are balanced, the print (headings) is not as bold—students are supposed to read info.—not only headings!"
- "But I did like the summary section at the end of the B format."
- "Seems less overwhelming to read-I like the softer colors better, fewer changes in font."
- "Not too busy. Color-coded for meaning, not just using color on each page."

People who preferred B: 2

- · "More visually appealing."
- "For me, it's just easier to read, highly organized."

Evaluation Answers, Back Page

(back page)

1) What is the function of textbooks within your classes? Do you rely heavily on them for the main source of information, or do you use other activities to teach the material and use the text as a secondary source of information?

- . "Personally, I only use my textbook as a small resource, read after I have taught the new concept."
- "I don't use textbooks in my 2nd grade. I think using secondary sources is very important."
- "Use both—but not too much expository because my students are primary."
- "I teach primary grades and we don't use texts much. We do use a S.S. text that is overwhelming with colors—it is a secondary source."
- . "My students don't use textbooks. They are 1st grader's."
- . "Text is usually a secondary source of info."
- "Textbooks are limited in my 1st grade class. Literature is mostly used. We do have thin science texts."
- · "We don't use textbooks."
- "I have a small supply of textbooks, but they're used as supplements because they aren't enough and
 it's used to prepare students for the ELA Exam."
- "Most of the textbooks are used as supplementary materials, rather than main source of information."
- "I work with fifth grader's, so textbooks are used with guidance in the classroom. Our textbooks are used in conjunction with other materials and trade books."
- "I don't use textbooks as a rule. I do use them from time to time to back up an idea."
- "I teach Language Arts and I only use my text as a source of information for myself. I don't think it is very kid friendly."
- "I do not rely on textbooks, but I am currently teaching kindergarten."
- · "We don't use texts in kindergarten."
- "I do not rely heavily on textbooks—I tend to develop my own materials and use the text as a backup—most textbooks are too difficult for my students."
- "I am an elementary teacher (K-2) so I don't have textbooks within my classroom. When I did teach high school, the textbook was a secondary piece of information to my lessons."
- "I use textbooks mainly as a secondary source."
- "I use them as a resource b/c I teach 3rd grade and the text is too complicated and the text is too high for them."
- "Trade books, picture books, novels—5th grade district doesn't use texts."
- "A secondary source of information."

- · "Text is a secondary source."
- "Used as a supplement to other resources."
- "I do not use textbooks in my pull-out program."
- · "Rely heavily on textbooks, seldom integration of other sources."
- "I am an inclusion teacher. The Social Studies teacher for 7th and 8th grade uses the text heavily.
 Students are expected to find information on their own with a guided reading worksheet.
 Students take turns reading aloud in class and discussing ideas. Groups work to find answers."
- "I have a non-text book 1st grade classroom."
- "Textbooks are utilized as a supplement to instruction (a tool). No, they are not a primary source of information. Other materials are utilized for Instruction to supplement."

2) Is there a particular type of textbook that you like the best? If so, which one. Why?

- "I like format A in particular because it is less overwhelming. The consistent structure would be helpful.
 Spacing is better and I like more subdued colors."
- · "None."
- · "Not oversized/heavy."
- · "Math, most clear out of S.S., science and math."
- "No."
- · "Not really."
- "No."
- "One that does not have too much information on each page."
- "Keep books as small as possible with clearly defined units."
- "Literature Anthologies (I teach English). Newer anthologies have all sorts of genres—activities both reading and writing are prepared—good color and organization."
- "No."
- "Smaller ones—1 book per unit."

3) If you could change the way textbooks are presented, how would you do so?

- "Present material in a clear and focused manner using everyday, life examples and avoiding clutter and information that is not important. Also, Chapter Summaries and Vocabulary layouts that are consistent."
- "Turn topic/title into a question—sets purpose for reading."
- "More in order—not so much information. Some books have so many facts it's like an information overload."
- . "Not so much info. on one page! Make more subtle colors!"
- "The textbooks we use have so much information that they are unable to go into detail on any particular subject."
- . "I think the simpler, the better!"
- "Make them simple—no extra information/colors."
- "Textbooks today have too much information on each page. This causes confusion for teachers and students."
- "Appropriate font (warm colors)—large size when necessary, graphics, good visuals."
- · "Make them consistent throughout (vocabulary terms, and pictures and colors) the same throughout."
- . "To break information into smaller chunks at one time."
- "Organization, everyday examples (ie: math "real life" math), chapter summary."
- "I would like to see textbooks that are well-organized and not overwhelming."
- "I would make them smaller. My 2 teenage children bring home several ridiculously large texts every night and it seems absurd."
- "Shorter—to the point info—some info presented in note form with ideas of how to enhance three different activities."
- "If I would change textbooks, I would want them to be smaller, not so overwhelming for children."
- "I would like to see much more in terms of graphs, charts, timelines, larger print, and more of an opportunity for students to get involved."
- "Have a section in the book that teaches text structure or introduces each chapter and type of text structure—gives students an idea on purpose."
- "Try and use narrative text with content."
- "More organization and consistency within each chapter."
- "More white-space. Important information within the text not in small descriptions near photos and drawings."

- · "Less topics more in depth units."
- "Great care should be given to the ideas and parts presented because the volume of information is so high. It is good when main ideas are clear."

4) Do you think the presentation of information to students is important? Do you think it can really make a difference in a student's comprehension ability?

- "Yes, presentation of text is important to a students comprehension. If a student finds a text boring, confusing, or too difficult they are more likely to have low comprehension."
- "Students learn and want to learn more information when info is presented in an orderly/organized fashion. It will absolutely make a difference in a students comprehension ability because of their want/need to learn. Great Job!"
- "A well structured text can make the difference between student comprehending the information and student getting completely lost."
- "If students are overwhelmed, they don't want to continue to read. They give up."
- "It is very important. Working with special education students your text would be better to read. It seems more interesting, less cluttered, and consistent per page. It isn't overwhelming and I feel it is easier to read. I like the whole layout!"
- "Yes, textbooks could definitely be more comprehensible and reader friendly."
- "Many students have difficulty reading texts. The combination of the vocabulary along with a scattered layout make it very difficult for struggling readers and harder than it need to be for good readers."
- · "Yes! Yes!"
- "Yes! Yes I do think it makes a difference in comprehension ability, especially for children who are struggling readers—they need everything easily available and organized for them—not all over the page, with different information pulled ox on every page."
- "Yes. Visual appeal makes a big difference—students of all ages!"
- "Yes! Yes! Presentation by text and teacher influences interest!"
- "Yes, it needs to be more user friendly (organized and consistent). This will definitely increase students comprehension."
- "Yes—If a student feels it is easy to read, easy to look up info, I feel they will be able to increase the comprehension of the material/lesson."
- "Yes—the layout of a text will either enhance comprehension or make it more difficult for students to comprehend. Also if text appears to be jam-packed with info or there is too much going on—students tend to shut down and don't even want to deal with it."
- "Yes!!"
- "Yes! Yes! Students need help organizing information and a text that does that for them or helps them
 with organization is best. It will increase comprehension."

- "Absolutely. I think once students become familiar with the text format, textbooks can be very beneficial. I think presentation is very important. If it does not look interesting, the children won't want to read it."
- · "Presentation of information is vital to students ability to comprehend."
- · "Yes, if the information is clear students can get information off the page."
- "Yes, if it is unorganized and poorly written, it can influence the student's comprehension in a negative way."
- · "Yes definitely, children will read captions, quotes and look at photos when they are visually appealing."
- · "Yes, layout is key."
- "Yes! If there is too much information students will become frustrated and don't want to read."
- . "Yes. I think that organization greatly impacts comprehension."
- · "Yes, most books have too much multi-sensory information that can create confusions for the student."
- "Yes—some students can get overwhelmed and distracted by the amount of information on a page and then not get the information necessary or comprehend the text."
- "Yes. If I'm interested right away, it's usually because I don't feel too threatened by too much info at once."
- "Yes!"
- "Yes because if they are not overwhelmed by all of the pictures, colors and side pieces of information then they can read for meaning from the body of the text. Plus, if important info or main ideas are presented forthright, then the student has a better opportunity at comprehension."

Thesis Evaluation: Students of the Marie Calahan Reading Clinic

Rochester Institute of Technology Graduate Graphic Design Program Thesis Evaluation

Rebecca Biddle 442-5075 bidlay@aol.com

The Impact of Visual Syntax on Reading Comprehension

Explanation

A group of students from the Marie Calahan Reading Clinic will be selected for this portion of the evaluation. The students will then be split into two groups—Group A and Group B. Group A will be given an original excerpt from the Creating America: A History of the United States. Group B will be given the redesigned excerpt. In distributing the material, neither group will be told which version they are receiving. The students will have 5 minutes to read the excerpt. They will be instructed to mark the page to indicate how far they had been able to read. The textbook excerpt will then be removed from the student and a series of 5 questions will be asked orally by the administrator. Each question will be repeated a few times for clarity. The time it takes to answer the question, accuracy, and various other observations, such as body language and memory recall, should be recorded. The same procedure will be repeated for Group B.

At no time will the students' names be documented. Age, sex, and grade level will be the only information recorded at the time of testing.

The following are 5 sample questions and two aesthetic questions based upon the third section of Chapter 25 from Creating America: A History of the United States.

Questions

- 1) What was the name of the great jazz musician that lived in New Orleans? (Louis Armstrong)
- 2) What were the two factors that kept African American and Hispanic cultures from participating in American leisure-time activities?

 (income and race)
- 3) What does mass media mean?

(communications that reach a large audience)

4) What is Popular Culture?

(popular culture included songs, dances, fashion, and even slang expressions)

5) What are the names of the two people who were well-known pilots and both the first to cross the Atlantic Ocean?

(Charles Lindbergh & Amelia Earhart)

6) How easy was this excerpt to read?

1 2 3 4 5 Very Easy Very Hard

7) Was there anything about this excerpt that confused or bothered you?

Evaluation Answers of Students from the Marie Calahan Reading Clinic

Format A		
Age	Grade level	Sex
14	8th	male
14	7th	male
13	7th	male
12	6th	male
12	6th	male
10	5th	male

Format B		
Age	Grade level	Sex
15	8th	male
14	8th	male
14	7th	male
11	6th	female
11	6th	male
11	5th	male
10	5th	male

(Answers in order of age as seen above)

1) What was the name of the great jazz musician that lived in New Orleans? (Louis Armstrong)

Format A-answered correctly: 5 of 6

"Last name—Armstong, (Do you remember 1st name?) Louis? Garney?—Louis."

Format B-answered correctly: 5 of 7

"Louis Armstrong."

"Didn't remember."

"Louis Armstong."

"Don't know."

"It was someone Armstrong."

"Jazz Musician is Louis Armstrong."

"I forgot his first name. His last name was Armstrong."

2) What were the two factors that kept African American and Hispanic cultures from participating in American leisure-time activities?

(income and race)

Format A-answered correctly: 3 of 6

"Racism, and sticking with own kind."

"They were a different color and didn't have the money for it."

"Racism and the amount of money they asked for, sometimes they asked for too much."

[&]quot;Louis Armstrong."

[&]quot;Louis Armstrong."

[&]quot;I don't know, I probably skipped those words."

[&]quot;Louis Armstrong."

[&]quot;Louis."

- "I don't know "
- "I didn't get to that."
- "Movies and the radio (with prompts because he didn't know "leisure-time").

Format B-answered correctly: 2 of 7

- "Don't remember that one."
- "Skin color."
- "Freedom."
- "Because different colored skin and might have talked a different language."
- "Don't know."
- "I don't know."
- "There were different (looked and sounded different)."

3) What does mass media mean?

(communications that reach a large audience)

Format A-answered correctly: 2 of 6

- "A whole bunch of media—(do you know what media means)—Reporters so a whole bunch of reporters."
- "That more people started to listen and began to watch more movies."
- "A huge crowd of people."
- "I don't know."
- "A lot of news people, but I didn't get to that."
- "A lot of people listening to the same program."

Format B-answered correctly: 1 of 7

- "It's a large, like, group of people. Spectators or people that listen in on things."
- "Ways of communicating, like radio and television."
- "People that have cameras and film and want information."
- "Don't know."
- "A whole bunch of people keep going somewhere "you know these are all guesses."
 - (Observations from administrator: "arms closed, very nervous")
- "Don't know-a music thing like media play."
- "Not sure."

4) What is Popular Culture?

(popular culture included songs, dances, fashion, and even slang expressions)

Format A-answered correctly: 3 of 6

- "A lot of people in culture, and a lot of people know about them."
- "African Americans started coming here more than ever before."
- "The things people like."
- "Popular culture is when you're famous by what you do."
- "People know you I guess."
- "Jamaican's are a popular culture because there are a lot of Jamaican's. Babe Ruth is popular culture because a lot of people strived for the same goal."

Evaluation Answers cont.

Format B-answered correctly: 2 of 7

- "I thought it was popular music, or group, or whatever that is popular."
- "I didn't get that far."
- "Didn't remember."
- "Not sure."
- "Culture that is made by famous people."
- "Didn't get to it."
- "It's something that a lot of people do."

5) What are the names of the two people who were well-known pilots and both the first to cross the Atlantic Ocean?

(Charles Lindbergh & Amelia Earhart)

Format A-answered correctly: 1 of 6

- "Don't remember."
- "Amelia Earhart and Hughes."
- "77"
- "I don't know-I probably didn't get that far."
- "I didn't get there."
- "Didn't get to this question because he didn't finish it."

Format B-answered correctly: 1 of 7

- "Charles Lindbergh and Ameila Earhart"
- "I do not know"
- "Didn't get that far."
- "Don't know."
- "I don't know."
- "Didn't get to it."
- "Not sure."

6) How easy was this excerpt to read?

1	2	3	4	5
Very Easy	1) 20			Very Hard

Format A

- "3-right in middle."
- "2."
- "4."
- "3."
- "4, hard."
- "3-4."

Format B

- "1-I know all the words except it wasn't too catchy."
- "A regular book I would rate a five. This was a little easier to read so I give it a four."
- "3-Easy to read but hard to remember."
- "5."
- "About a 3-a couple of hard words."
- "4-5 on the scale of being the hardest."
- "3."

7) Was there anything about this excerpt that confused or bothered you?

Format A

"No" (Administrator: "Anything you liked?") "Picture of Babe Ruth" (Administrator: "Print was too small"). "No."

"The words were confusing, they did not make sense, the words were too long, they could have been more simple."

"The questions confused me. The hard words bothered me."

(Observations from administrator: student answered questions quickly except for question #4—visible signs of recall—looking up—"um..." also #4 took about 1–1 1/2 minutes. Student became agitated because text was difficult. Also was heard skipping other difficult words and saying "whatever" whenever he came to an unknown word.")

"The words were a little hard."

"Nothing bothered or confused him."

Format B

"No, practically everything in here I learned in Social Studies."

"Sometimes there were a lot of facts crammed into a little reading. I like diagrams on the side. I like when they underline words. Mixed up text is o.k."

"Confusing because it talked about one thing then switched to something else."

"Very hard."

"Had some boring things, and it looked a little confusing. Don't like the vocabulary with meaning in parenthesis in text (needs to be highlighted or on the side)."

"Too much writing"—(didn't even look at top of page with heading because darkened out part 1 of excerpt)."

"There were some big words in it."

Original layouts from

Chapter 25

Creating America: A History of the United States

Redesigned layouts based upon

Chapter 25

Creating America: A History of the United States

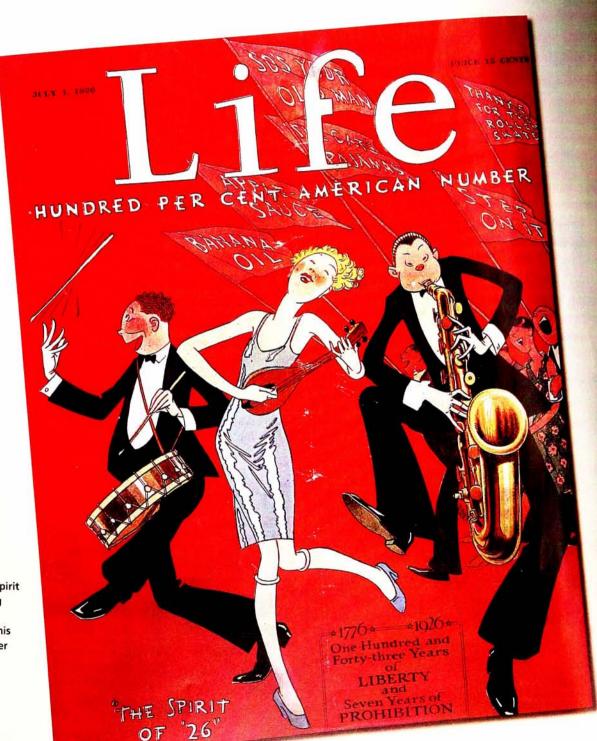


The Roaring Twenties 1919-1929

Section 1 The Business of America

Section 2 Changes in Society

Section 3 The Jazz Age and the Harlem Renaissance



The carefree spirit of the Roaring Twenties is captured on this magazine cover from 1926.

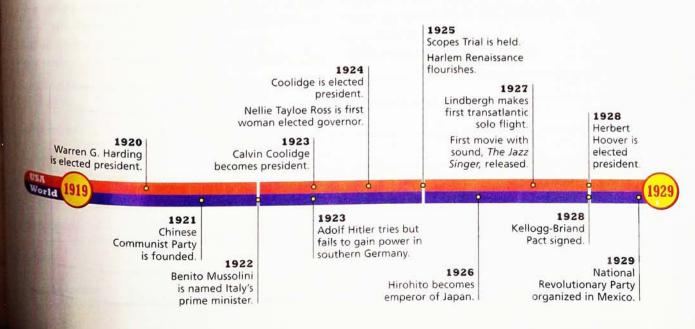
Interact with History electric passenger refrigerator airlines family car ricortiginone radio

Which changes in culture or technology will affect your life the most?

World War I is over. and a new decade has begun. There is peace in the world and prosperity at home. It is a time of exciting social, cultural, economic, and technological change. You see new products and new ideas coming into your life.

What Do You Think?

- How will these new ideas and products change your life?
- · Will these changes make life better and easier? How?
- · Which class of people will be affected most by these changes?



Chapter 25 SETTING THE STAGE

BEFORE YOU READ

Previewing the Theme

Science and Technology As Chapter 25 explains, the 1920s were a time of peace and economic prosperity for many Americans. Consumer buying, the growth of the automobile industry, and the development of new technologies helped business to expand and changed the way people lived. The Roaring Twenties also brought new ideas, new attitudes, and new forms of entertainment.



More cars meant traffic jams—like this one in St. Louis in 1920.

What Do You Know?

What do you already know about the Roaring Twenties? What were the issues and who were the personalities that made this decade "roar"?

THINK ABOUT

- · how the 1920s have been portrayed in movies, television. and historical fiction
- what happens to a country when rapid changes take place

What Do You Want to Know?

What additional information do you want about the issues and personalities of the 1920s? Record questions you may have in your notebook before you read the chapter.

READ AND TAKE NOTES

Reading Strategy: Finding Main Ideas To understand what you read, learn to find the main idea of each paragraph, topic heading, and section. Remember that the supporting details help to

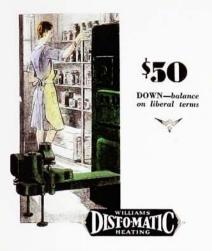
explain the main idea. On the chart below, write down the main idea in this chapter for each category of American life.



See Skillbuilder Handbook, page R5.

Categories	Main Ideas		
Government			
Business			
Agriculture		·	
Technology		E X	
Society			
Popular Culture			

OIL HEAT small homes



Credit allowed consumers to buy the latest products—\$50 down and small monthly payments bought this new oil heater.

Other advances in technology improved life. New machines turned out products faster and cheaper. Once-costly items were now available to many consumers. Some consumers used credit and paid for their purchases through **installment buying.** This allowed repaying the amount borrowed in small monthly payments. National advertising also got its start at this time, as a way of helping to promote new products.

Cheap fuel powered the new prosperity. Petroleum and electricity became widely available. These power sources made possible new inventions and advances in technology that made life easier, such as electric vacuum cleaners, washers, sewing machines, toasters, and fans. However, it was mostly only the white middle class that could afford these new products.

Reading History
C. Summarizing
How did
advances in technology change
the lives of
Americans?

The Air Age Begins

The 1920s also marked the beginning of the air age. After World War I, many former military pilots bought old war planes and worked as crop-dusters, stunt fliers, and flight instructors. In 1918, the Post Office Department began air mail service. Airplanes had found new uses.

Transatlantic flights by Charles A. Lindbergh in 1927 and Amelia Earhart in 1928 and 1932 helped to promote the idea of commercial air transportation. Pan American Airways, founded in 1927, became the nation's first passenger airline. By the end of the decade, its operations were drawing distant cities closer together both in North and South America.

In the next section, you will read about more changes in life in the United States and the conflicts these changes caused.

Section

Identify:

Assessment

1. Terms & Names

- Warren G. Harding
- Teapot Dome Scandal
- Calvin Coolidge
- laissez faire
- isolationist
- Kellogg-Briand Pact
- assembly line
- installment buying

2. Taking Notes

Use a chart like the one below to review details about the people in this section.

People	Details
Warren G. Harding	
Calvin Coolidge	
Henry Ford	

3. Main Ideas

- a. What were Harding's and Coolidge's policies toward business?
- b. How did corruption affect the Harding administration?
- c. How did new technology help business to grow during the 1920s?

4. Critical Thinking

Drawing Conclusions

Which developments in the 1920s added to prosperity?

THINK ABOUT

- government's role in the economy
- advances made in technology

ACTIVITY OPTIONS

TECHNOLOGY

ART

Research an aspect of the American automobile industry. Either draw a diagram of how a car works or design an advertisement for an automobile.



Changes in Society

TERMS & NAMES

flapper **Prohibition** Al Capone NAACP **Marcus Garvey** fundamentalism Ku Klux Klan

MAIN IDEA

Changes in society in the 1920s brought new attitudes and lifestyles but also caused divisions and conflict.

WHY IT MATTERS NOW

Many of the social issues of the 1920s continue to challenge American society today.

ONE AMERICAN'S STORY

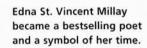
Poet Edna St. Vincent Millay was one of many young people who rebelled against traditional values in the 1920s. She had left her home in Maine to study poetry at Vassar College in New York. She graduated in 1917 as World War I neared its end. Then she moved to the Greenwich Village section of New York City. There Millay lived among artists and writers whose ideas were different from those traditionally held by society. She wrote poems about love and the carefree lifestyle of the 1920s.

A VOICE FROM THE PAST

My candle burns at both ends; It will not last the night; But ah, my foes, and oh, my friends-It gives a lovely light!

Edna St. Vincent Millay, "First Fig," from A Few Figs from Thistles

Millay was a symbol of the 1920s woman. In this section, you will read about the changing roles of young people and women, problems facing African Americans, and conflicts that came to divide society.



Youth in the Roaring Twenties

The 1920s were called the Roaring Twenties. According to author F. Scott Fitzgerald, "The uncertainties of 1919 were over. America was going on the greatest, gaudiest spree in history." During the decade, youth and its culture were celebrated. For the first time, young people as a group rebelled against the values of the past and the authority of their elders. The under-25 generation wanted fun and freedom. Many of them experimented with new fashions, attitudes, and ways of behavior.

Young people stayed in school longer, and more went to college. School became a place for socializing as well as learning. Young people expressed their new freedom in daring new clothes, lively songs and dances, and silly fads. Men wore extra-wide floppy pants and sported hair slicked down close to the head. Women wore a shorter hairstyle called a bob to match the shorter dresses of the period.



1 The Business of America

MAIN IDEA

The government supported business and kept a hands-off policy in other matters.

WHY IT MATTERS NOW

How involved the government should be in the economy remains an issue today.

TERMS & NAMES

Warren G. Harding **Teapot Dome** Scandal Calvin Coolidge laissez faire isolationist **Kellogg-Briand Pact** assembly line installment buying

ONE AMERICAN'S STORY

Warren G. Harding was a pleasant man of whom it was said he "looked like a president." He was happiest relaxing or playing cards with his closest friends. But urged on by his wealthy and ambitious wife, Florence Kling Harding, he rose from small-town newspaper publisher, to U.S. senator from Ohio, to Republican presidential candidate.

The advice from Republican Party leaders in 1920 was "Keep Warren at home. Don't let him make any speeches." So Harding spent most of the 1920 election race campaigning from his front porch in Marion, Ohio. But Harding was what the voters wanted. He promised them prosperity at home and peace abroad, and they elected him president. Mrs. Harding supposedly said, "Well, Warren Harding, I have got you the Presidency; what are you going to do with it?"

In this section, you will read about Presidents Warren G. Harding and Calvin Coolidge, the booming economy of the Roaring Twenties, and the new technologies that helped businesses to grow.



Warren G. Harding and his wife, Florence Kling Harding, at their home in Marion, Ohio.

Harding and the "Return to Normalcy"

After some 20 years of reform and war, Americans were ready for the "normalcy" promised by Harding in the election and at his inauguration.

A VOICE FROM THE PAST

Our supreme task is the resumption of our onward, normal way. Reconstruction, readjustment, restoration all these must follow. I would like to hasten them.

Warren G. Harding, Inaugural Address, March 4, 1921

As president, Harding wanted to lift the burden of taxes and regulations from the shoulders of Americans. To do this, he proposed lower taxes and "less government in business and more business in government." He also sought higher tariffs on foreign goods to help American companies.

Harding chose a pro-business cabinet. The secretary of the treasury was Andrew W. Mellon, one of the wealthiest men in the United States.

STRANGE True

PRESIDENT SWORN IN BY FATHER

On August 2, 1923, Vice-President Calvin Coolidge went to bed early at his family home in Plymouth Notch, Vermont. During the night, Coolidge's father received news by telegram that Harding had died. He then woke his son. The U.S. attorney general urged Coolidge to take the oath of office as soon as possible. At 2:47 A.M. on August 3, 1923, John Coolidge, a justice of the peace, administered the oath to his son.



Mellon persuaded Congress to lower taxes and balance the budget. Herbert Hoover, an engineer who organized aid to Europe in World War I, was secretary of commerce. He worked to cut federal government waste.

While some of Harding's cabinet choices, like Mellon and Hoover, were excellent, a number were unqualified, and even corrupt. These men had been Harding's friends back in Ohio and were known as the "Ohio Gang." They used their government positions to make money illegally. Their actions helped to wreck the Harding presidency. The worst scandal involved Secretary of the Interior Albert Fall. It was called the <u>Teapot Dome Scandal</u>. Fall took bribes and made illegal deals with oil executives to drill on oil-rich government land in Teapot Dome, Wyoming.

Rumors of corruption in the Harding administration began to be heard in 1923. Harding, who was politically and personally honest, was alarmed. He had once said, "I knew that this job would be too much for me." Tired and depressed, Harding went on a speaking tour in the summer of 1923. It was then that he learned the full extent of the corruption. He died suddenly while on the trip, on August 2, 1923. The American people mourned his death, but they were shocked when the scandals became public.

Reading History
A. Drawing
Conclusions
How did members
of the Ohio Gang
take advantage
of their friendship
with Harding?

Coolidge Takes Over

Vice-President <u>Calvin Coolidge</u> became president when Harding died. He moved quickly to try to clean up the scandals. His efforts limited the political damage to the Republican Party, and Coolidge was elected president in his own right in 1924. He defeated Democrat John W. Davis and Robert M. La Follette, the Progressive Party nominee.

Coolidge and those who voted for him felt that prosperity would be the reward of those who worked hard. As a friend of business, Coolidge agreed with the economic theory of <u>laissez faire</u>. It stated that business, if left unregulated by the government, would act in a way that would benefit the nation. In 1925, Coolidge stated his belief that "the chief business of the American people is business." He said that Americans were concerned with "prospering in the world." Under the Coolidge administration, business prospered and so did many Americans.

Coolidge also believed that it was not the government's job to help people with social and economic problems. Farmers were one group that Coolidge refused to help. Because new machinery had been introduced, farmers were producing more food than the nation needed. So food prices were dropping.

Vocabulary laissez faire: to allow to do (French)

"The chief business of the American people is business."

Calvin Coolidge

Congress passed a bill that required the government to buy the extra food. This would have raised prices. But Coolidge vetoed the bill.

Like Harding, Coolidge was an <u>isolationist</u>. Both believed that the United States should stay out of other nations' affairs except in matters of self-defense. Both supported efforts to avoid war.

Coolidge's major peace effort was the **Kellogg-Briand Pact** of 1928. This pact, or treaty, was signed by 15 nations who pledged not to make war against one another except in self-defense. Most Americans supported the treaty. They hoped that if war were outlawed, it would disappear. Then they could concentrate on their own lives.

Technology Changes American Life

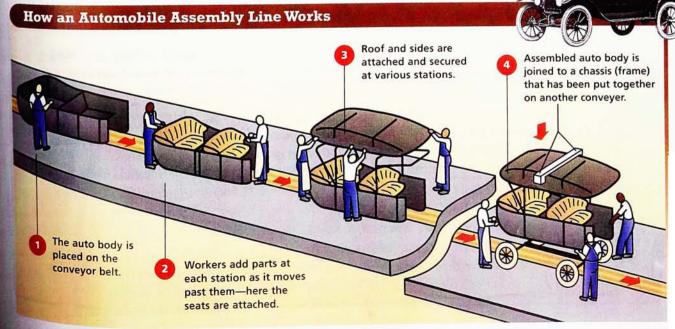
The economy was booming in the 1920s. Both Harding and Coolidge kept government regulation to a minimum, and business flourished. Part of the "roar" in the Roaring Twenties was the growth in the nation's wealth. The average annual income per person rose more than 35 percent during the period—from \$522 to \$716. This increase in income gave Americans more money to buy goods and to spend on leisure activities.

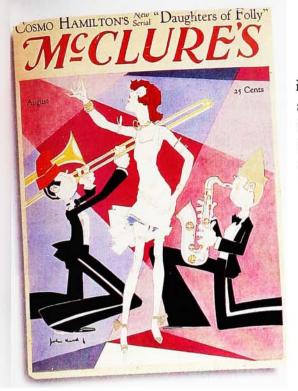
Automobiles had the greatest impact on life during the 1920s. Henry Ford, who built his first successful automobile in 1896, was determined to make a car that most people could afford. At the Ford Motor Company in Detroit, his dream came true with a car called the Model T. In 1920, Ford produced more than a million automobiles, at a rate of one per minute. Each car cost the consumer \$335.

To speed up production and lower costs and prices, Ford used an **assembly line**. In an assembly line, the product moves along a conveyor belt across the factory. Workers at various stations add parts as the belt moves past them. By the mid-1920s, a Model T came off a Ford assembly line every ten seconds.

1923 Model T Ford

Reading History
B. Recognizing
Effects What
effect did the
assembly line
have on the price
of cars?





The flapper appeared on many magazine covers during the 1920s.

The Charleston was a favorite dance. It involved wild, flailing movements of the arms and legs. Dance marathons became the rage. In these contests, couples would dance nonstop for days. Songs also captured the high spirits of the decade. Among the most popular tunes were "Runnin' Wild" and "Ain't We Got Fun." Many young people imitated the behavior of favorite stars from Hollywood movies. Other fads included crossword puzzles, mah-jongg, and flagpole sitting (sitting on a platform on top of a flagpole for days).

The spirited behavior of young women during the decade was just one way women's lives changed.

New Roles for Women

The symbol of the 1920s American woman was the flapper. The flapper was the creation of John Held, Jr., a magazine illustrator. Flappers often wore bobbed hair, makeup, and dresses that fell to just below the knee. They were always eager to try something new, whether it was a new fashion, behavior, dance, or fad.

During the 1920s, women took more active roles in their life than ever before. They had more personal freedom. They drove cars, played sports, went to college, and took jobs. Margaret Sanger, a reformer who focused on women's health issues, described these women.

A VOICE FROM THE PAST

Today women are on the whole much more individual. They possess as strong likes and dislikes as men. They live more and more on the plane of social equality with men . . . [and] there is more enjoyable companionship and real friendship between men and women.

Margaret Sanger, quoted in A More Perfect Union

The prosperity of the 1920s opened new job opportunities for women in business offices, retail stores, factories, and various professions. College graduates most often became teachers and nurses, but also librarians, social workers, and bankers. Women with less education worked in factories or in offices as typists and secretaries or in stores as clerks and cashiers. Attitudes toward marriage also changed. Men and women came to view marriage as more of an equal partnership. Women still had the responsibility of housework and child rearing. But labor-saving appliances and timesaving convenience foods made life easier.

Because of the 19th Amendment, women were able to vote for the first time in 1920. Some even ran for political office. In 1924, two were elected governor—Nellie Tayloe Ross in Wyoming and Miriam "Ma" Ferguson in Texas. But political gains for women were slow. By 1928, only 145 women held seats in state legislatures across the country.

Background Mah-jongg was a game from China played with small painted tiles.

Reading History

A. Recognizing Effects What were some of the effects of women's greater opportunities?

Prohibition and Lawlessness

Another change in American society came on January 16, 1920. That was the date when the 18th Amendment went into effect. The amendment was commonly called **Prohibition**, the ban on the manufacture and sale of alcohol. Many people saw Prohibition as a victory of smalltown, Protestant Americans over city dwellers. Supporters felt that Prohibition would promote morality and good health. To enforce the ban, Congress had passed the Volstead Act in 1919.

Saloons were forced to close their doors. But many Americans did not consider drinking harmful or sinful. They resented government interference. People who wanted alcohol found endless ways to get it. For instance, illegal nightclubs known as speakeasies sold liquor. People called bootleggers made their living by transporting and selling liquor illegally. Others simply brewed their own homemade liquor.

One unfortunate result of Prohibition was the growth of organized crime. In nearly every major city, criminal gangs battled for control of bootlegging operations. The most ruthless crime boss of the era was Al Capone in Chicago. With a private army of 700 criminals, he violently seized control of the city's 10,000 speakeasies. By the late 1920s, most Americans had come to see Prohibition as a failure. It was repealed by the 21st Amendment in 1933. Prohibition ended, but organized crime did not end with it.

Marcus Garvey led a Back-to-Africa movement in the 1920s.

Background Bootlegger came from the old smugglers' practice of carrying liquor in the legs of boots.

Changes for African Americans

The 1920s also brought major changes to the lives of many African Americans. To find better jobs, African Americans had begun moving north in the early 1900s. As you read in Chapter 24, this movement was called the Great Migration. The jobs that they held in industries during World War I raised their expectations for a better life.

In the North, African Americans gained some economic and political power. But they still faced discrimination in jobs and housing. Rising tensions between African Americans and whites in Northern cities led to over 25 race riots in 1919 alone. The movement of an additional 1.5 million African Americans to these cities during the 1920s increased tensions even more.

The National Association for the Advancement of Colored People (NAACP) tried to protect the constitutional rights of African Americans. The NAACP worked to make people aware of crimes against African Americans. But it was unable to get Congress to pass legislation to help African Americans fight against discrimination.

Daily threats and discrimination made some African Americans lose faith in America. Marcus Garvey, the founder of the Universal Negro Improvement Association, called for a return to Africa and the formation of a separate nation there. He said, "If Europe is for the Europeans, then Africa shall be for the black peoples of the world." Few African Americans migrated to Africa. But Garvey set an example for future black political movements.

B. Reading a Map Locate cities with significant African-American populations on the map on page 723.

ReadingHistory

Reading History
C. Analyzing
Points of View
What action did
Marcus Garvey
believe would
improve the lives
of African

Americans?





More than 40,000 Ku Klux Klan members march in Washington, D.C., in 1925, to show their growing political power.

A Divided Society

Some groups felt threatened by the changes in society in the 1920s. Conflicts developed over ideas and values. Divisions between groups resulted—between African Americans and whites, the native-born and immigrants, and the urban and rural communities. Science and religion also were in conflict.

In religion, a movement called <u>fundamentalism</u> gained both recognition and political power. Fundamentalists believed in a literal, or word-forword, interpretation of the Bible. They did not want the theory of evolution taught in public schools because it opposed their belief in the biblical story of

creation. Evolution is the scientific theory that living things developed over millions of years from earlier and simpler forms of life.

Fundamentalists succeeded in banning the teaching of evolution in Tennessee and 12 other states. In 1925, in Dayton, Tennessee, biology teacher John Scopes broke this law. He took this action to test whether the law could be enforced. Scopes's trial attracted national attention. The jury found Scopes guilty, but the Tennessee Supreme Court reversed the decision. Controversy over the teaching of evolution continues today.

Another reaction to changes in society was the rebirth of the **Ku Klux Klan**. The Klan called for a "racially and morally pure" America. It became strong in several states, including some outside the South. By 1924, the Klan claimed as many as five million members. It tried to influence national, state, and local politics by using violence against African Americans and other groups. Its power began to decrease by the end of the decade because of personal and financial scandals in the organization.

In this section, you read about divisions in society. In the next, you will learn how mass media and popular culture brought Americans together.

ReadingHistory

D. Analyzing
Causes What
action taken by
fundamentalists
caused John
Scopes to break
the law in
Tennessee?

Section

Assessment

1. Terms & Names

- flapper
- Prohibition
- Al Capone
- NAACP
- Marcus Garvey
- fundamentalism
- Ku Klux Klan

2. Taking Notes

Use a cluster diagram to review the fads of the Roaring Twenties.



Which fads of the 1920s had lasting influence?

3. Main Ideas

- **a.** How did the Roaring Twenties change the lives of young people?
- **b.** What factors were responsible for the changes in women's lives?
- **c.** What were the conflicts that divided society?

4. Critical Thinking

Recognizing Effects How was American society transformed in the 1920s?

THINK ABOUT

- roles of young people and women
- migration of African Americans
- · conflicts between groups

ACTIVITY OPTIONS

ART

MUSIC

Draw a **poster** with an image that represents the Roaring Twenties or write a **song** capturing the spirit of the times.



3 The Jazz Age and the Harlem Renaissance

TERMS & NAMES jazz

mass media popular culture Harlem Renaissance

Lost Generation expatriate

MAIN IDEA

WHY IT MATTERS NOW

Popular culture was influenced by the mass media, sports, and the contributions of African Americans. Much of today's popular culture had its origins in this period.

ONE AMERICAN'S STORY

The decade known as the Roaring Twenties was also called the Jazz Age, because the lively, loose beat of jazz captured the carefree spirit of the times. Jazz was developed by African-American musicians in New Orleans. That city was the home of Louis Armstrong, who became one of the world's great jazz musicians.

As a child, Armstrong often listened to jazz played at funeral processions and dance halls. He was raised by a poor, single mother and started working at age seven. His job was collecting junk in a horse-drawn wagon. While in the wagon, Armstrong often played a small tin horn.



Louis Armstrong brought New Orleans jazz to the North in the 1920s.

A VOICE FROM THE PAST

I had a little tin horn, the kind the people celebrate with. I would blow this long tin horn without the top on it. Just hold my fingers close together. Blow it as a call for old rags, bones, bottles or anything that people had to sell. . . . The kids loved the sounds of my tin horn!

Louis Armstrong, quoted in Louis Armstrong by Sandford Brown

Later, Armstrong learned to play the trumpet. With other jazz musicians, he spread this new music to other parts of the country—from Chicago to New York's Harlem—and then to Europe.

In this section, you will read more about the spread of popular culture, the Harlem Renaissance, and the artists of the Lost Generation.

More Leisure Time for Americans

Laborsaving appliances and shorter working hours gave Americans more leisure time. Higher wages also gave them money to spend on leisure activities. People wanted more fun, and they were willing to spend money to have it. Americans paid 25 cents or more to see a movie—an increase of at least 5 times the price in the previous decade. By the end of the 1920s, there were more than 100 million weekly moviegoers.

In addition to attending movies, some Americans went to museums and public libraries. Others bought books and magazines. Sales rose by



50 percent. Americans also spent time listening to the radio, talking on the telephone, playing games, and driving their cars. In 1929, Americans spent about \$4 billion on entertainment—a 100 percent jump in a decade.

But not all Americans were able to take part equally in leisure-time activities or in the consumer culture of the 1920s. Some, like African Americans and Hispanic Americans, had their time and choices limited by factors such as income and race.

Mass Media and Popular Culture

New types of <u>mass media</u>—communications that reach a large audience—began to take hold in the 1920s. Radio and movies provided entertainment and spread the latest ideas about fashions and lifestyles.

The first commercial radio broadcast took place in Pittsburgh at station KDKA in 1920. Other radio stations soon emerged. The number of households with radios jumped from about 60,000 in 1922 to 10 million in 1929. Radio stations broadcast news, sports, music, comedy, and commercials. Not only were Americans better informed than before, but listening to the same radio programs united the nation.

Of all the powerful new influences of the 1920s, none shaped the ideas and dreams of Americans more than motion pictures. The moviemaking industry was centered in Hollywood, California.

Movies gave people an escape into worlds of glamour and excitement they could never enter. Audiences flocked to movie theaters to see their favorite actors and actresses. These included Charlie Chaplin, Mary Pickford, Douglas Fairbanks, Clara Bow, and Rudolph Valentino. Movies also spread American popular culture to Europe. **Popular culture** included songs, dances, fashions, and even slang expressions like *scram* (leave in a hurry) and *ritzy* (elegant).

Moviemakers like Samuel Goldwyn, the Warner brothers, and Louis B. Mayer made fortunes overnight. For most of the 1920s, films were silent. In 1927, *The Jazz Singer* introduced sound. Another talkie caused a sensation in 1928—Walt Disney's cartoon Steamboat Willie, featuring Mickey Mouse. Within a few years, all movies were talkies.

Reading History

A. Recognizing

Effects What was the main effect that laborsaving devices and reduced working hours had on Americans' lives?

A Search for Heroes

Another leisure activity was watching sporting events and listening to them on the radio. Sporting events of all types—baseball, football, hockey, boxing, golf, and tennis-enjoyed rising attendance. Boxing became very popular. Fans who could not attend the fights listened to matches on the radio or saw them on newsreels shown at movie theaters. The Jack Dempsey-Gene Tunney boxing match of 1926 drew 120,000 fans.

Reading History B. Summarizing What were some of the changes that came about in popular entertainment in the 1920s?

In the 1920s, professional baseball gained many new fans because games were broadcast on radio. As a result, fans flocked to major league ballparks. In New York City, fans went to Yankee Stadium, which opened in 1923, to watch the "Bronx Bombers"—the nickname for the New York Yankees. Even college football and basketball attracted huge crowds.

Sports figures captured the imagination of the American public. They became heroes because they restored Americans' belief in the power of the individual to improve his or her life. Babe Ruth of the Yankees was baseball's top home-run hitter. Someone once asked Ruth why his \$80,000 salary was higher than the president's. Ruth supposedly replied, "Well, I had a better year."

Baseball players weren't the only sports heroes. Golfers idolized Bobby Jones. People cheered Helen Wills and Bill Tilden on the tennis courts. In 1926, New York City threw a huge homecoming parade for Gertrude Ederle, the first woman to swim the English Channel. Americans also made national heroes of two daring young fliers-Charles A. Lindbergh and Amelia Earhart.

AMERICA'S HISTORY MAKERS



CHARLES A. LINDBERGH 1902-1974

Charles A. Lindbergh took flying lessons in 1922 and bought his first airplane in 1923. Four years later, in May 1927, he became the first person to fly nonstop alone across the Atlantic Ocean.

Lindbergh had heard about an offer of \$25,000

to anyone who could fly nonstop from New York to Paris. Piloting his single engine monoplane, the Spirit of St. Louis, without radio or parachute, Lindbergh flew some 3,600 miles in 33½ hours. "Lucky Lindy" became an instant hero.

AMELIA EARHART 1897-1937

Amelia Earhart was often called "Lady Lindy" because of both her physical resemblance to Charles Lindbergh and her similar accomplishments as a pilot.

Earhart took flying lessons in 1921 and bought her first plane in 1922. Noted for her courage and independence, she flew where no women had gone before. She was the first woman to cross the Atlantic in a plane (as a passenger) in 1928 and the first to fly solo across the Atlantic in 1932. She disappeared on a roundthe-world flight in 1937. What happened remains a mystery to this day.

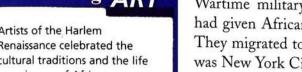
Why do you think Lindbergh and Earhart became American heroes?



HISTORY throughART

Artists of the Harlem Renaissance celebrated the cultural traditions and the life experiences of African Americans. This painting by Lois Mailou Jones is entitled The Ascent of Ethiopia.

How does the artist show the link between African and American cultures?



Wartime military service and work in war industries had given African Americans a new sense of freedom. They migrated to many cities across the country, but it was New York City that turned into the unofficial capital of black America. In the 1920s, Harlem, a neighborhood on New York's West Side, was the world's largest black urban community.

The Harlem Renaissance

The migrants from the South brought with them new ideas and a new kind of music called jazz. Soon Harlem

produced a burst of African-American cultural activity known as the Harlem Renaissance, which began in the 1920s and lasted into the 1930s. It was called a renaissance because it symbolized a rebirth of hope for African Americans.

Harlem became home to writers, musicians, singers, painters, sculptors, and scholars. There they were able to exchange ideas and develop their creativity. Among Harlem's residents were poets Langston Hughes, James Weldon Johnson, and Countee Cullen and novelists Claude McKay and Zora Neale Hurston. Hughes was perhaps Harlem's most famous writer. He wrote about the difficult conditions under which African Americans lived.

Jazz became widely popular in the 1920s. It was a form of music that combined African rhythms, blues, and ragtime to produce a unique sound. Jazz spread from its birthplace in New Orleans to other parts of the country and made its way into the nightclubs

of Harlem. These nightclubs featured popular jazz musicians such as Louis Armstrong and Duke Ellington, and singers such as the jazz and blues great, Bessie Smith. Harlem's most famous nightclub was the Cotton Club. It made stars of many African-American performers, but only white customers were allowed in the club.

The Lost Generation

For some artists and writers, the decade after the war was not a time of celebration but a time of deep despair. They had seen the ideas of the Progressives end in a senseless war. They were filled with resentment and they saw little hope for the future. They were called the **Lost Generation**.

Vocabulary renaissance: rebirth (French)

Reading History C. Recognizing Effects What changes to popular culture resulted from the migration of African Americans to the North?

Reading History D. Analyzing Causes Why did many American writers become expatriates and live in Paris?

For many of them, only one place offered freedom and tolerance. That was Paris. The French capital became a gathering place for American expatriates, people who choose to live in a country other than their own. Among the American expatriates living in Paris was the young novelist Ernest Hemingway. As an ambulance driver in Europe during World War I, he had seen the war's worst. His early novels, The Sun Also Rises and A Farewell to Arms, reflected the mood of despair that followed the war.

Novelists F. Scott Fitzgerald and Sinclair Lewis were two other members of the Lost Generation. Fitzgerald and his wife, Zelda, lived the whirlwind life of the Jazz Age—fast cars, nightclubs, wild parties, and trips to Paris. His master-

piece, The Great Gatsby, is a tragic story of wealthy New Yorkers whose lives spin out of control. The novel is a portrait of the dark side of the Roaring Twenties.

Lewis wrote Babbitt, a novel that satirized, or made fun of, the American middle class and its concern for material possessions.

A VOICE FROM THE PAST

It's the fellow with four to ten thousand a year . . . and an automobile and a nice little family in a bungalow . . . that makes the wheels of progress go round! . . . That's the type of fellow that's ruling America today; in fact, it's the ideal type to which the entire world must tend, if there's to be a decent, well-balanced . . . future for this little old planet!

Sinclair Lewis, Babbitt

The social values and materialistic lifestyles criticized by Lewis soon came to an end. As you will read in the next chapter, the soaring economy that brought prosperity in the 1920s came to a crashing halt. It was followed by a worldwide economic depression in the 1930s.

F-SCOTT-FITZGERALD F. Scott Fitzgerald

is pictured here in France with his wife, Zelda. He published his masterpiece, The Great Gatsby, while living there.

Section

1. Terms & Names Identify

- · jazz
- · mass media
- popular culture
- Harlem Renaissance
- Lost Generation
- expatriate

2. Taking Notes

Assessment

Use the chart to review facts about mass media.

Radio	Movies

How did mass media change the lives of Americans?

3. Main Ideas

- a. Which two factors gave Americans more leisure time?
- b. What effect did radio have on sports?
- c. Why was Harlem called the unofficial capital of black America?

4. Critical Thinking

Evaluating What contributions to popular culture occurred in the 1920s?

THINK ABOUT

- the impact of World War I
- · the power of mass media
- new social values

ACTIVITY OPTIONS ART TECHNOLOGY

Find an image and important facts about a noted person in this section. Draw a trading card or plan that person's home page for the Internet.

GEOGRAPHY in HISTORY

LOCATION AND REGION

African-American Baseball Leagues

More than a million African Americans left the South from 1917 to 1929. They were lured to large cities by the offer of higher wages and the increased demand for labor. It was during this period of growing urbanization that the Negro baseball leagues were formed. The map on the next page shows cities with notable teams in the 1920s and 1930s. Each city had an African-American population large enough and wealthy enough to support a team.

Most teams were owned by African Americans. To raise money for expenses, teams needed to play as many games as possible. Thus, they traveled constantly. Stopping in big cities and small towns, they played other African-American teams or white amateur and professional teams. Eventually, teams of African-American all-stars played exhibitions against professional white all-stars.

In 1920, Andrew "Rube" Foster persuaded owners of seven other teams to join him in forming the first Negro baseball league—the Negro National League. Foster (pictured in suit at right) was a former player and then owner of the Chicago American Giants. The Negro American League got started in 1937. After major league baseball was integrated by Jackie Robinson in 1947, the Negro leagues began to decline.



ARTIFACT FILE

Memorabilia

The baseball jersey and shoes pictured here are part of the uniform worn by a player from one of the traveling teams of the period.



Pittsburgh Crawfords

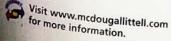
The Pittsburgh Crawfords, shown here with the team's bus, was one of the best teams in the Negro leagues in the 1930s. The success of traveling teams helped to boost revenues of African-American-owned hotels and restaurants in every city that they played.

Cities with Notable African-American Baseball Teams, 1920s-1930s



On-Line Field Trip

National Baseball Hall of Fame and Museum
The Negro leagues have been widely honored. This poster is from the National Baseball Hall of Fame and Museum in Cooperstown, New York. In Kansas City, Missouri, the Negro Leagues Baseball Museum also keeps the memory of these teams alive.

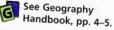




FLORIDA

CONNECT TO GEOGRAPHY

- Location Which cities had notable teams in the 1920s and 1930s?
- 2. Region Why do you think that African-American teams were located mainly in cities in the East?



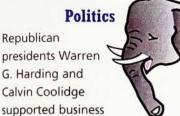
CONNECT TO HISTORY

3. Evaluating How did the migration of African Americans from the South to Northern cities lead to the rise of Negro baseball leagues?

VISUAL

SUMMARY

The Roaring Twenties



in the United States and isolationism in foreign relations.

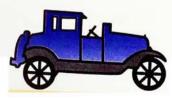


Economics

Business prospered in the 1920s, helped by government support and the development of new technologies. But some groups, notably farmers, faced hardships.

Technology

Technological developments, such as the assembly line, and cheap, available sources of power, such as electricity and petroleum, powered the new prosperity.



Society and Culture

Changes in society brought new attitudes and lifestyles, especially for young people and women. Movies,

radio, jazz, and sports became popular forms of entertainment.

Chapter 25 ASSESSMENT

TERMS & NAMES

Briefly explain the importance of each of the following.

- 1. Warren G. Harding
- 2. Calvin Coolidge
- 3. isolationist
- 4. Kellogg-Briand Pact
- 5. NAACP
- 6. Marcus Garvey
- 7. fundamentalism
- 8. mass media
- 9. Harlem Renaissance
- 10. Lost Generation

REVIEW QUESTIONS

The Business of America (pages 709–712)

- How was the foreign policy of Harding and Coolidge isolationist?
- 2. What was the economic theory of laissez faire?
- 3. Which factors contributed to the nation's growing wealth during the 1920s?

Changes in Society (pages 713–716)

- 4. What changes took place in the behavior and values of young people during the 1920s?
- 5. What was the image of the *flapper?*
- 6. How did the 19th Amendment change women's lives?
- 7. What were some of the divisions in society in the 1920s?

The Jazz Age and the Harlem Renaissance (pages 717–723)

- 8. What were three examples of American popular culture?
- 9. Which factors contributed to the popularity of sports?
- 10. Why are the 1920s also called the Jazz Age?

CRITICAL THINKING

1. USING YOUR NOTES

Categories	Main Ideas	- 000
Government		1000
Business		
Agriculture		100
Technology		
Society		(0)
Popular Culture		100

Using your completed chart, answer the questions below.

- a. What role did government choose to play in the economy?
- b. How did technology affect life during the 1920s?
- c. How did popular culture change the habits of society?

2. ANALYZING LEADERSHIP

Think about the political leaders discussed in this chapter. Which of their characteristics made them good or poor leaders?

3. APPLYING CITIZENSHIP SKILLS

In what other ways could people have protested Prohibition besides disregarding the law?

4. THEME: SCIENCE AND TECHNOLOGY

How did advances in technology contribute to the prosperity of the United States during the 1920s?

5. DRAWING CONCLUSIONS

Explain how the African-American migration to the North and the spread of jazz contributed to the cultural diversity of the United States.

Interact with History

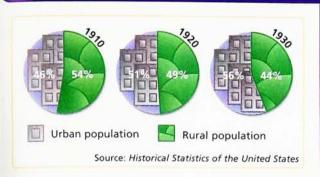
In your opinion, which changes in American life discussed in this chapter would have affected you the most?

HISTORY SKILLS

1. INTERPRETING GRAPHS

Study the graph and then answer the questions.

Urbanization of America, 1910-1930



- a. What was the total percentage increase in the urban population from 1910 to 1930?
- b. During which 10-year period did the United States become more urban than rural?

2. INTERPRETING PRIMARY SOURCES

Read the poem below, which was written by Langston Hughes, an African American. Then answer the questions that follow.

I, too, sing America.

I am the darker brother.
They send me to eat in the kitchen
When company comes,
But I laugh,
And eat well,
And grow strong.

Tomorrow,
I'll be at the table
When company comes.
Nobody'll dare
Say to me,
"Eat in the kitchen,"
Then.

Besides, They'll see how beautiful I am And be ashamed—

I, too, am America.

Langston Hughes, "I, Too"

a. What is the subject of the poem?

b. What change does Hughes see taking place?

ALTERNATIVE ASSESSMENT

1. INTERDISCIPLINARY ACTIVITY: Language Arts

Writing a Report Do research to learn how cars are made on an assembly line today. Describe the procedure for manufacturing a car from start to finish. Include the method of production, materials used, and the time it takes to make a car. Share your report with the class.

2. COOPERATIVE LEARNING ACTIVITY

Writing or Drawing an Advertisement National advertising became an important way to promote new products to the public during the 1920s. Working in a small group, write a radio ad or draw a magazine ad for a product that made life easier during the 1920s, such as a car, refrigerator, toaster, vacuum cleaner, sewing machine, fan, or washer. Make sure your advertisement covers the following ideas:

- a. Do research on the product. Describe the product in the 1920s.
- b. How will the product improve life for Americans?
- c. How much does the product cost?

3. TECHNOLOGY ACTIVITY

Planning a Web Page on the Roaring Twenties
The 1920s were years of great creativity. American
popular culture was being spread throughout the
nation and abroad by radio and movies. Use the
library or search the Internet for information about
the music, fashions, fads, and celebrities of the period.



Create a Roaring Twenties Web page by following the suggestions below.

- Select appropriate images of personalities, fashions, and fads.
- Include biographical information and quotations.
- · Choose music that captures the spirit of the era.
- Decide which Web sites would be good links for visitors to your page.

4. PORTFOLIO ACTIVITY

Option 1 Review your section and chapter assessment activities. Select one that you think was your best work. Use comments made by your teacher or classmates to improve your work, and then add it to your portfolio.

Option 2 Review the questions that you wrote for "What Do You Want to Know?" on page 708. Then write a brief report explaining the answers to your questions. Add your work to your history portfolio.

The Roaring Twenties 1919–1929

The Business of America

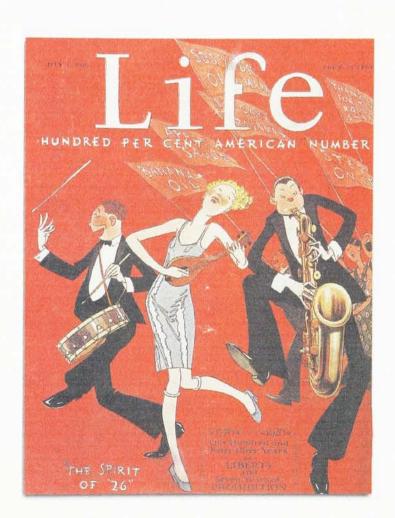
Section 1

Changes in Society

Section 2

The Jazz Age and the Harlem Renaissance

Section 3



The carefree spirit of the Roaring Twenties is captured on this magazine cover from 1926.

Which changes in culture or technology will affect your life most?

What do you think?

How will these new ideas and products change life?

Will these changes make life better and easier? How?

Which class of people will be affected most by these changes?



A. Electric Icebox

B. Family Car

C. Transatlantic Flights

D. Radio

World War I is over, and a new decade has begun. There is peace in the world and prosperity at home. It is a time of exciting social, cultural, economic, and technological change. You see new products and new ideas coming into your life.

				1924	1925	1927		
	1920		1923	Coolidge is elected President	Scopes trial is held	Lindbergh make first transatlantio solo flight		
	Warren G. Harding is elected President		Calvin Coolidge becomes President	Nellie Tayloe Ross is first woman elected governor	Harlem Renaissance flourishes	First movie with sound, The Jazz Singer, released	Herbert Hoov is elected Pre	
USA	1920		1923	1924	1925	1927	1928	SUPERIOR SERVE
1919								
orld	1921	1922	1923		[192	6	1928	1929
	Chinese Communist Party is Founded	Benito Musselini is named Italy's prime minister	Adolf Hitler tries but to gain power in Southern Germany	t fails		hito becomes peror of Japan	Kellog-Briand Pact signed	National Revolutionary Party organized in Mexico
	1921	1922	1923		1926	5	1928	1929

Before You Read



More cars meant traffic jams-like this one in St. Louis in 1920.

Think about

- How the 1920s have been portrayed in movies, television, and historical fiction?
- What happens to a country when rapid changes take place?

Previewing the Theme

Science and Technology

As Chapter 25 explains, the 1920s were a time of peace and economic prosperity for many Americans. Consumer buying, the growth of the automobile industry, and the development of new technologies helped business to expand and changed the way people lived. The Roaring Twenties also brought new ideas, new attitudes, and new forms of entertainment.

What Do You Know?

What do you already know about the Roaring Twenties? What were the issues and who were the personalities that made this decade "roar?"

What Do You Want to Know?

What additional information do you want about the issues and personalities of the 1920s? Record questions you may have in your notebook before you read the chapter.

Read and Take Notes

Reading Strategy Finding Main Ideas To understand what you read, learn to find out the main idea of each paragraph, topic heading, and section. Remember that the supporting details help to explain the main idea. On the chart below, write down the main idea in this chapter for each category of American life. (see Skillbuilder Handbook, page R5)

Categories Main Ideas

Government

Business

Agriculture

Technology

Society

Popular Culture

Chapter 25 The Business of America 5 • Section 1

One American's Story



Warren G. Harding and his wife Florence Kling Harding, at their home in Marion, Ohio,

A Voice From The Past

Our supreme task is the resumption of our onward, normal way. Reconstruction, readjustment, restoration all these must follow. I would like to hasten them.

Warren G. Harding, Inaugural Address, March 4, 1921

Warren G. Harding was a pleasant man of whom it was said he "looked like a president." He was happiest relaxing or playing cards with his closest friends. But urged on by his wealthy and ambitious wife, Florence Kling Harding, he rose from small-town newspaper publisher, to U.S. senator from Ohio, to Republican presidential candidate.

The advice from Republican Party leaders in 1920 was "Keep Warren at home. Don't let him make any speeches." So Harding spent most of the 1920 election race campaigning from his front porch in Marion, Ohio. But Harding was what the voters wanted. He promised them prosperity at home and peace abroad, and they elected him president. Mrs. Harding supposedly said, "Well, Warren Harding, I have got you the Presidency; what are you going to do with it?"

In this section, you will read about Presidents Warren G. Harding and Calvin Collidge, the booming economy of the Roaring Twenties, and the new technologies that helped business to grow.

The Business of America



Terms and Names

- · Warren G. Harding
- · Teapot Dome Scandal
- Calvin Coolidge
- · Laissez faire
- Isolationist
- · Kellog-Briand Pact
- · Assembly line
- · Installment buying

Main Idea

The government supported business and kept a hands-off policy in other matters.

Why It Matters

How involved the government should be in the economy remains an issue today.

Harding and the "Return to Normalcy"

After some 20 years of reform and war, Americans were ready for the "normalcy" promised by Harding in the election and at his inauguration. As president, Harding wanted to lift the burden of taxes and regulations from the shoulders of Americans. To do this, he proposed lower taxes and "less government in business and more business in government." He also sought higher tariffs on foreign goods to help American companies.

Harding chose a pro-business cabinet. The secretary of the treasury was Andrew W. Mellon, one of the wealthiest men in the United States. Mellon persuaded Congress to lower taxes and balance the budget. Herbert Hoover, an engineer who organized aid to Europe in World War I, was secretary of commerce. He worked to cut federal government waste.

While some of Harding's cabinet choices, like Mellon and Hoover, were excellent, a number were unqualified, and even corrupt. These men had been Harding's friends back in Ohio and were known as the "Ohio Gang." They used their government positions to make money illegally. Their actions helped to wreck the Harding presidency. The worst scandal involved Secretary of the Interior Albert Fall. It was called the **Teapot Dome Scandal**. Fall took bribes and made illegal deals with oil executives to drill on oil-rich government land in Teapot Dome, Wyoming.

Reading History

Drawing Conclusions

How did members of the Ohio Gang take advantage of their friendship with Harding? Strange but True President sworn in by Father



On August 2, 1923, Vice President Calvin Coolidge went to bed early at his family home in Plymouth Notch, Vermont, During the night, Coolidge's father received news by telegram that Harding had died. He then woke his son. The U.S. attorney general urged Coolidge to take the oath of office as soon as possible. At 2:47 A.M. on August 3, 1923, John Coolidge, a justice of the peace, administered the oath to his son.

Rumors of corruption in the Harding administration began to be heard in 1923. Harding, who was politically and personally honest, was alarmed. He had once said, "I knew that this job would be too much for me." Tired and depressed, Harding went on a speaking tour in the summer of 1923. It was then that he learned the full extent of the corruption. He died suddenly while on the trip, on August 2, 1923. The American people mourned his death, but they were shocked with the scandals became public.

"The chief business of the American people is business."

Coolidge Takes Over

Vice-President Calvin Coolidge became president when Harding died. He moved quickly to try to clean up the scandals. His efforts limited the political damage to the Republican Party, and Coolidge was elected president in his own right in 1924. He defeated Democrat John W. Davis and Robert M. La Follette, the Progressive Party nominee.

Coolidge and those who voted for him felt that prosperity would be the reward of those who worked hard. As a friend of business, Coolidge agreed with the economic theory of laissez faire. It stated that business, if left unregulated by the government, would act in a way that would benefit the nation. In 1925, Coolidge stated his belief that "the chief business of the American people is business." He said that Americans were concerned with "prospering in the world." Under the Coolidge administration, business prospered and so did many Americans.

Coolidge also believed that is was not the government's job to help people with social and economic problems. Farmers were one group Coolidge refused to help. Because new machinery had been introduced, farmers were producing more food than the nation needed. So food prices were dropping. Congress passed a bill that required the government to buy the extra food. This would have raised prices. But Coolidge vetoed the bill.

Like Harding, Coolidge was an **isolationist**. Both believed that the United States should stay out of other nations' affairs except in matters of self-defense. Both supported efforts to avoid war.

Vocabulary

laissez faire: to allow to do (French) Coolidge's major peace effort was the Kellog-Briand Pact of 1928. This pact, or treaty, was signed by 15 nations who pledged not to make war against one another except in self-defense. Most Americans supported the treaty. They hoped that if war were outlawed, it would disappear. Then they could concentrate on their own lives.

Technology Changes America

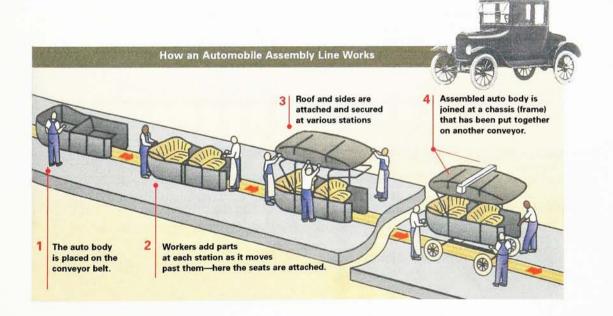
The economy was booming in the 1920s. Both Harding and Coolidge kept government regulation to a minimum, and business flourished. Part of the "roar" in the Roaring Twenties was the growth in the nation's wealth. The average annual income per person rose more than 35 percent during the period—from \$522 to \$716. This increase in income gave Americans more money to buy goods and to spend on leisure activities.

Automobiles had the greatest impact on life during the 1920s. Henry Ford, who built his first successful automobile in 1896, was determined to make a car that most people could afford. At the Ford Motor Company in Detroit, his dream came true with a car called the Model T. In 1920, Ford produced more than a million automobiles, at a rate of one per minute. Each car cost the consumer \$335.

Reading History

Recognizing Effects

What effect did the assembly line have on the price of cars?





Credit allowed consumers to buy the latest products—\$50 down and small monthly payments bought this new oil heater

To speed up production and lower costs and prices, Ford used an **assembly line**. In an assembly line, the product moves along a conveyor belt across the factory. Workers at various stations add parts as the belt moves past them. By the mid-1920s, a Model T came off a Ford assembly line every ten seconds.

Other advances in technology improved life. New machines turned out products faster and cheaper. Once-costly items were now available to many consumers. Some consumers used credit and paid for their purchases through **installment buying**. This allowed repaying the amount borrowed in small monthly payments. National advertising also got its start at this time, as a way of helping to promote new products.

Cheap fuel powered the new prosperity. Petroleum and electricity became widely available. These power sources made possible new inventions and advances in technology that made life easier, such as electric vacuum cleaners, washers, sewing machines, toasters and fans. However, it was mostly only the white middle class that could afford these new products.

The Air Age Begins

The 1920s also marked the beginning of the air age. After World War I, many former military pilots bought old war planes and worked as crop-dusters, stunt fliers, and flight instructors. In 1918, the Post Office Department began air mail service. Airplanes had found new uses.

Transatlantic flights by Charles A. Lindbergh in 1927 and Amelia Earhart in 1928 and 1932 helped to promote the idea of commercial air transportation. Pan American Airways, founded in 1927, became the nation's first passenger airline. By the end of the decade, its operations were drawing distant cities closer together both in North and South America.

Reading History

Summarizing

How did advances in technology change the lives of Americans?

In the next section, you will read about more changes in life in the United States and the conflicts these changes caused.

Section Assessment



Think About

- government's role in the economy
- advances made in technology

Terms and Names Identify:

- · Warren G. Harding
- · Calvin Coolidge
- · Isolationist
- · Teapot Dome Scandal
- · Laissez Faire
- · Kellogg-Briand Pact

Taking Notes

Use a chart like the one below to review details about the people in this section.

People	Details		
Warren G. Harding:			
Calvin Coolidge:			
Henry Ford:			

Main Ideas

- a. What were Harding's and Coolidge's policies toward business?
- b. How did corruption affect the Harding administration?
- c. How did new technology help business to grow during the 1920s?

Critical Thinking
Drawing Conclusions

Which developments in the 1920s added to prosperity?

Activity Options	Technology & Art
	Research an aspect of the American automobile industry.
	Either draw a diagram of how a car works
	or design an advertisement for an automobile.

One American's Story



A Voice From The Past

My candle burns at both ends; It will not last the night; But ah, my foes, an oh, my friends— It gives a lovely light!

Edna St. Vincent Millay, "First Fig," from A Few Figs from Thistles

Edna St. Vincent Millay became a bestselling poet and a symbol of her time.

Poet Edna St. Vincent Millay was one of many young people who rebelled against traditional values in the 1920s. She had left her home in Maine to study poetry at Vassar College in New York. She graduated in 1917 as World War I neared its end. Then she moved to the Greenwich Village section of New York City. There Millay lived among artists and writers whose ideas were different from those traditionally held by society. She wrote poems about love and the carefree lifestyle of the 1920s.

Millay was a symbol of the 1920s woman. In this section, you will read about the changing roles of young people and women, problems facing African Americans, and conflicts that came to divide society.

Changes in Society



Women changed the fashion trend and sported new clothes and hairstyles.

Terms and Names

- · Flapper
- · Prohibition
- · Al Capone
- · NAACP
- · Marcus Garvey
- · Fundamentalism
- · Ku Klux Klan

Main Idea

Changes in society in the 1920s brought new attitudes and lifestyles but also caused divisions and conflict.

Why It Matters

Many of the social issues of the 1920s continue to challenge American society today.

Youth in the Roaring Twenties

The 1920s were called the Roaring Twenties. According to author F. Scott Fitzgerald, "The uncertainties of 1919 were over. America was going on the greatest, gaudiest spree in history." During the decade, youth and its culture were celebrated. For the first time, young people as a group rebelled against the values of the past and the authority of their elders. The under-25 generation wanted fun and freedom. Many of them experimented with new fashions, attitudes, and ways of behavior.

Young people staying in school longer, and more went to college. School became a place for socializing as well as learning. Young people expressed their new freedom in daring new clothes, lively songs and dances, and silly fads. Men wore extra-wide floppy pants and sported hair slicked down close to the head. Women wore a shorter hairstyle called a bob to match the shorter dresses of the period.

Background

Mah-jongg was a game from China played with small painted tiles. The Charleston was a favorite dance. It involved wild, flailing movements of the arms and legs. Dance marathons became the rage. In these contests, couples would dance nonstop for days. Songs also captured the high spirits of the decade. Among the most popular tunes were "Runnin' Wild" and "Ain't We Got Fun." Many young people imitated the behavior of favorite stars from Hollywood movies. Other fads included crossword puzzles, *mah-jongg*, and flagpole sitting (sitting on a platform on top of a flagpole for days.)

The spirited behavior of young women during the decade was just one way women's lives changed.



The flapper appeared on many magazine covers during the 1920s.

New Roles for Women

The symbol of the 1920s American women was the flapper. The flapper was the creation of John Held, Jr., a magazine illustrator. Flappers often wore bobbed hair, makeup, and dresses that fell to just below the kncc. They were always eager to try something new, whether it was a new fashion, behavior, dance, or fad.

During the 1920s, women took more active roles in their life than ever before. They had more personal freedom. They drove cars, played sports, went to college, and took jobs. Margaret Sanger, a reformer who focused on women's health issues, described these women.

The prosperity of the 1920s opened new job opportunities for women in business offices, retail stores, factories, and various professions. College graduates most often became teachers and nurses, but also librarians, social workers, and bankers. Women with less education worked in factories or in offices as typists and secretaries or in stores as clerks and cashiers. Attitudes toward marriage also changed. Men and women came to view marriage as more of an equal partnership. Women still had the responsibility of housework and child rearing. But laborsaving appliances and timesaving convenience foods made life easier.

A Voice From The Past

Today women are on the whole much more individual. They possess as strong likes and dislikes as men. They live more and more on the plane of social equality with men...[and] there is more enjoyable companionship and real friendship between men and women.

Margaret Sanger, quoted in A More Perfect Union

Reading History

Recognizing Effects
What were some of the
effects of women's greater
opportunities?

Because of the 19th Amendment, women were able to vote for the first time in 1920. Some even ran for political office. In 1924, two were elected governor—Nellie Tayloe Ross in Wyoming and Miriam "Ma" Ferguson in Texas. But political gains for women were slow. By 1928, only 145 women held seats in state legislatures across the county.

Prohibition and Lawlessness

Another change in American society came on January 16, 1920. That was the date when the 18th Amendment went into effect. The amendment was commonly called **Prohibition**, the ban on the manufacture and sale of alcohol. Many people saw Prohibition as a victory of small-town, Protestant Americans over city dwellers. Supporters felt that Prohibition would promote morality and good health. To enforce the ban, Congress had passed the Volstead Act in 1919.

Saloons were forced to close their doors. But many Americans did not consider drinking harmful or sinful. They resented government interference. People who wanted alcohol found endless ways to get it. For instance, illegal nightclubs known as speakeasies sold liquor. People called *bootleggers* made their living by transporting and selling liquor illegally. Others simply brewed their own homemade liquor.

One unfortunate result of Prohibition was the growth of organized crime. In nearly every major city, criminal gangs battled for control of bootlegging operations. The most ruthless crime boss of the era was **Al Capone** in Chicago. With a private army of 700 criminals, he violently seized control of the city's 10,000 speakeasies. By the late 1920s, most Americans had come to see Prohibition as a failure. It was repealed by the 21st Amendment in 1933. Prohibition ended, but organized crime did not end with it.

Background

Bootlegger came from the old smugglers' practice of carrying liquor in the legs of boots.

Reading History

Reading a Map

Locate cities with significant African-American populations on the map on page 723.

Changes for African Americans

The 1920s also brought major changes to the lives of many African Americans. To find better jobs, African Americans had begun moving north in the early 1900s. As you read in Chapter 24, this movement was called the Great Migration. The jobs that they held in industries during World War I raised their expectations for a better life.

In the North, African Americans gained some economic and political power. But they still faced discrimination in jobs and housing. Rising tensions between African Americans and whites in Northern cities led to over 25 race riots in 1919 alone. The movement of an additional 1.5 million African Americans to these cities during the 1920s increased tensions even more.

The National Association of the Advancement of Colored People (NAACP) tried to protect the constitutional rights of African Americans. The NAACP worked to make people aware of crimes against African Americans. But it was unable to get Congress to pass legislation to help African Americans fight against discrimination.

Daily threats and discrimination made some African Americans lose faith in America. Marcus Garvey, the founder of the Universal Negro Improvement Association, called for a return to Africa and the formation of a separate nation there. He said, "If Europe is for the Europeans, then Africa shall be for the black peoples of the world." Few African Americans migrated to Africa. But Garvey set an example for future black political movements.

Reading History

Analyzing Points of View What action did Marcus Garvey believe would improve the lives of African Americans?



Marcus Garvey led a Back-to-Africa movement in the 1920s.



More than 40,000 Ku Klux Klan members march in Washington D.C., in 1925, to show their growing political power.

A Divided Society

Some groups felt threatened by the changes in society in the 1920s. Conflicts developed over ideas and values. Divisions between groups resulted—between African Americans and whites, the native-born and immigrants, and the urban and rural communities. Science and religion also were in conflict.

In religion, a movement called **fundamentalism** gained both recognition and political power. Fundamentalists believed in a literal, or word-for-word, interpretation of the Bible. They did not want the theory of evolution taught in public schools because it opposed their belief in the biblical story of creation. Evolution is the scientific theory that living things developed over millions of years from earlier and simpler forms of life.

Fundamentalists succeeded in banning the teaching of evolution in Tennessee and 12 other states. In 1925, in Dayton, Tennessee, biology teacher John Scopes broke this law. He took this action to test whether the law could be enforced. Scopes's trial attracted national attention. The jury found Scopes guilty, but the Tennessee Supreme Court reversed the decision. Controversy over the teaching of evolution continues today.

Another reaction to changes in society was the rebirth of the **Ku Klux Klan**. The Klan called for a "racially and morally pure" America. It became strong in several states, including some outside the South. By 1924, the Klan claimed as many as five million members. It tried to influence national, state, and local politics by using violence against African Americas and other groups. Its power began to decrease by the end of the decade because of personal and financial scandals in the organization.

Reading History

Analyzing Causes

What action taken by fundamentalists caused John Scopes to break the law in Tennessee?

In this section, you read about divisions in society. In the next, you will learn how mass media and popular culture brought Americans together.

Section Assessment



Think About

- roles of young people and women
- migration of African Americans
- conflicts between groups

Terms and Names

- Flapper
- · Al Capone
- · Marcus Garvey
- · Ku Klux Klan
- · Prohibition
- · NAACP
- Fundamentalism

Taking Notes

Use a cluster diagram to review the fads of the Roaring Twenties



Which fads of the 1920s had lasting influence?

Main Ideas

- a. How did the Roaring Twenties change the lives of young people?
- b. What factors were responsible of the changes in women's lives?
- c. What were the conflicts that divided society?

How was American society transformed in the 1920s?

Critical Thinking Recognizing Effects

Activity Options

Art & Music

Draw a **poster** with an image that represents the Roaring Twenties or write a **song** capturing the spirit of the times.

One American's Story



A Voice From The Past

I had a little tin horn, the kind the people celebrate with. I would blow this long tin horn without the top on it. Just hold my fingers close together. Blow it as a call for old rags, bones, bottles or anything that people had to sell... The kids loved the sounds of my tin horn!

Louis Armstrong, quoted in Louis Armstrong by Sandford Brown.

Louis Armstrong brought New Orleans jazz to the North in the 1920s.

The decade known as the Roaring Twenties was also called the Jazz Age, because the lively, loose beat of jazz captured the carefree spirit of the times. Jazz was developed by African-American musicians in New Orleans. That city was the home of Louis Armstrong, who became one of the world's great jazz musicians.

As a child, Armstrong often listened to jazz played at funeral processions and dance halls. He was raised by a poor, single mother and started working at age seven. His job was collecting junk in a horse-drawn wagon. While in the wagon, Armstrong often played a small tin horn.

Later, Armstrong learned to play the trumpet. With other jazz musicians,he spread this new music to other parts of the country—from Chicago to New York's Harlem—and then to Europe.

In this section, you will read more about the spread of popular culture, the Harlem Renaissance, and the artists of the Lost Generation.

The Jazz Age and the Harlem Renaissance



Terms and Names

- · Jazz
- · Mass Media
- · Popular Culture
- · Harlem Renaissance
- · Lost Generation
- · Expatriate

Main Idea

Popular culture was influenced by the mass media, sports, and the contributions of African Americans.

Why it Matters Now

Much of today's popular culture had its origins in this period.

More Leisure Time for Americans

Laborsaving appliances and shorter working hours gave Americans more leisure time. Higher wages also gave them money to spend on leisure activities. People wanted more fun, and they were willing to spend money to have it. Americans paid 25 cents or more to see a movie—an increase of at least 5 times the price in the previous decade. By the end of the 1920s, there were more than 100 million weekly moviegoers.

In addition to attending movies, some Americans went to museums and public libraries. Others bought books and magazines. Sales rose by 50 percent. Americans also spent time listening to the radio, talking on the telephone, playing games, and driving their cars. In 1929, Americans spent about \$4 billion on entertainment—a 100 percent jump in a decade.

But not all Americans were able to take part equally in leisure-time activities or in the consumer culture of the 1920s. Some, like African Americans and Hispanic Americans, had their time and choices limited by factors such as income and race.

Celebrities of the 1920s



Charlie Chaplin
was the most popular male
film star during the 1920s.
He was known as the
"great comedian".



Babe Ruth helped to popularize baseball. In 1927, he became the first player to hit 60 home runs in one year.

Mass Media and Popular Culture

New types of mass media—communications that reach a large audience—began to take hold in the 1920s. Radio and movies provided entertainment and spread the latest ideas about fashions and lifestyles.

The first commercial radio broadcast took place in Pittsburgh at station KDKA in 1920. Other radio stations soon emerged. The number of households with radios jumped from about 60,000 in 1922 to 10 million in 1929. Radio stations broadcast news, sports, music, comedy, and commercials. Not only were Americans better informed than before, but listening to the same radio programs united the nation.

Of all the powerful new influences of the 1920s, none shaped the ideas and dreams of Americans more than motion pictures. The moviemaking industry was centered in Hollywood, California.

Movies gave people an escape into worlds of glamour and excitement they could never enter. Audiences flocked to movie theaters to see their favorite actors and actresses. These included Charlie Chaplin, Mary Pickford, Douglas Fairbanks, Clara Bow, and Rudolph Valentino. Movies also spread American popular culture to Europe. **Popular culture** included songs, dances, fashion, and even slang expressions like *scram* (leave in a hurry) and *ritzy* (elegant).

Moviemakers like Samuel Goldwyn, the Warner brothers, and Louis B. Mayer made fortunes overnight. For most of the 1920s, films were silent. In 1927, *The Jazz Singer* introduced sound. Another *talkie* caused a sensation in 1928—Walt Disney's cartoon *Steamboat Willie*, featuring Mickey Mouse. Within a few years, all movies were talkies.

Reading History

Recognizing Effects What was the main effect that laborsaving devices and reduced working hours had on American's lives?



Helen Wills dominated women's tennis in the 1920s.

Duke Ellington
was a world famous jazz
pianist and composer.
His band played at the
Cotton Club in Harlem
the 1920s.



America's History Makers



Charles A. Lindbergh 1902-1974

Charles A.Lindbergh took flying lessons in 1922 and bought his first airplane in 1923. Four years later, in May 1927, he became the first person to fly nonstop alone across the Atlantic Ocean.

Lindbergh had heard about an offer of \$25,000 to anyone who could fly nonstop from New York to Paris. Piloting his single engine monoplane, The Spirit of St. Louis, without radio or parachute, Lindbergh flew some 3,600 miles in 331/2 hours.

"Lucky Lindy" became an instant hero.

A Search for Heroes

Another leisure activity was watching sporting events and listening to them on the radio. Sporting events of all types—baseball, football, hockey, boxing, golf, and tennis—enjoyed rising attendance. Boxing became very popular. Fans who could not attend the fights listened to matches on the radio or saw them on newsreels shown at movie theaters. The Jack Dempsey—Gene Tunney boxing match of 1926 drew 120,000 fans.

In the 1920s, professional baseball gained many new fans because games were broadcast on radio. As a result, fans flocked to major league ballparks. In New York City, fans went to Yankee Stadium, which opened in 1923, to watch the "Bronx Bombers"—the nickname for the New York Yankees. Even college football and basketball attracted huge crowds.

Sporting figures captured the imagination of the American public. They became heroes because they restored Americans' belief in the power of the individual to improve his or her life. Babe Ruth of the Yankees was baseball's top home-run hitter. Someone once asked Ruth why his \$80,000 salary was higher than the president's. Ruth supposedly replied, "Well, I had a better year."

Baseball players weren't the only sports heroes. Golfers idolized Bobby Jones. People cheered Helen Wills and Bill Tilden on the tennis courts. In 1926, New York City threw a huge homecoming parade for Gertrude Ederle, the first woman to swim the English Channel. Americans also made national heroes of two daring young fliers—Charles A. Lindbergh and Amelia Earhart.

America's History Makers



Amelia Earhart 1897-1937

Amelia Earhart was often called "Lady Lindy" because of both her physical resemblance to Charles Lindbergh and her similar accomplishments as a pilot.

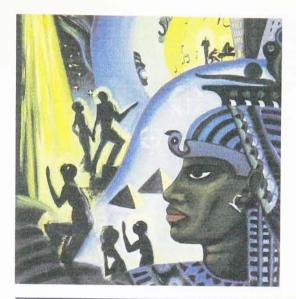
Earhart took flying lessons in 1921 and bought her first plane in 1922. Noted for her courage and independence, she flew where no woman had gone before. She was the first woman to cross the Atlantic in a plane (as a passenger) in 1928 and the first to fly solo across the Atlantic in 1932. She disappeared on a roundthe-world flight in 1937. What happened remains a mystery to this day.

Why do you think Lindbergh and Earhart became American heroes?

History Through Art

Artists of the Harlem Renaissance celebrated the cultural traditions and the life experiences of African Americans. This painting by Lois Mailou Jones is entitled The Ascent of Ethiopia.

How does the artist show the link between African and American cultures?



Reading History

Recognizing Effects

What changes to popular culture resulted from the migration of African Americans to the North?

The Harlem Renaissance

Wartime military service and work in war industries had given African Americans a new sense of freedom. They migrated to many cities across the country, but it was New York City that turned into the unofficial capital of black America. In the 1920s, Harlem, a neighborhood on New York's West Side, was the world's largest black urban community.

The migration from the South brought with them new ideas and a new kind of music called jazz. Soon Harlem produced a burst of African-American cultural activity known as the **Harlem Renaissance**, which began in the 1920s and lasted into the 1930s. It was called a renaissance because it symbolized a rebirth of hope for African Americans.

Harlem became home to writers, musicians, singers, painters, sculptors, and scholars. There they were able to exchange ideas and develop their creativity. Among Harlem's residents were poets Langston Hughes, James Weldon Johnson, and Countee Cullen and novelists Claude McKay and Zora Neale Hurston. Hughes was perhaps Harlem's most famous writer. He wrote about the difficult conditions under which African Americans lived.

Vocabulary

renaissance: rebirth (French) Jazz became widely popular in the 1920s. It was a form of music that combined African rhythms, blues, and ragtime to produce a unique sound. Jazz spread from its birthplace in New Orleans to other parts of the county and made its way into the nightclubs of Harlem. These nightclubs featured popular jazz musicians such as Louis Armstrong and Duke Ellington, and singers such as the jazz and blues great, Bessie Smith. Harlem's most famous nightclub was the Cotton Club. It made stars of many African-American performers, but only white customers were allowed in the club.

A Voice From The Past

It's the fellow with four to ten thousand a year...and an automobile and a nice little family in a bungalow... that makes the wheels of progress go round!...

That's the type of fellow that's ruling America today, in fact, it's the ideal type to which the entire world must tend, if there's to be a decent, well balanced... future for this little old planet!

Sinclair Lewis, Babbitt

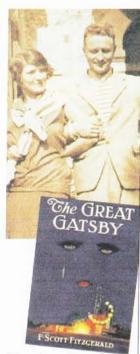
The Lost Generation

For some artists and writers, the decade after the war was not a time of celebration but a time of deep despair. They had seen the ideas of the Progressive end in a senseless war. They were filled with resentment and they saw little hope for the future. They were called the **Lost Generation**.

For many of them, only one place offered freedom and tolerance. That was Paris. The French capital became a gathering place for American **expatriates**, people who choose to live in a country other than their own. Among the American expatriates living in Paris was the young novelist Ernest Hemingway. As an ambulance driver in Europe during World War I, he had seen the war's worst. His early novels, *The Sun Also Rises* and *A Farewell to Arms*, reflected the mood of despair that followed the war.

Novelists F. Scott Fitzgerald and Sinclair Lewis were two other members of the Lost Generation. Fitzgerald and his wife, Zelda, lived the whirlwind life of the Jazz Age—fast cars, nightclubs, wild parties, and trips to Paris. His masterpiece, *The Great Gatsby*, is a tragic story of wealthy New Yorkers whose lives spin out of control. The novel is a portrait of the dark side of the Roaring Twenties.

Lewis wrote *Babbitt*, a novel that satirized, or made fun of, the American middle class and its concern for material possessions.



F. Scott Fitzgerald is pictured here in France with his wife, Zelda. He published his masterpiece, The Great Gatsby, while living there.

The social values and materialistic lifestyles criticized by Lewis soon came to an end. As you will read in the next chapter, the soaring economy that brought prosperity in the 1920s came to a crashing halt. It was followed by a worldwide economic depression in the 1930s.

Section Assessment



Think About

- the impact of World War I
- the power of mass media
- · new social values

Terms and Names Identify:

- Jazz
- · Popular Culture
- · Lost Generation
- · Mass Media
- · Harlem Renaissance
- Expatriate

Taking Notes

Use the chart to review facts about mass media

Radio	Movies	

How did mass media change the lives of Americans?

Main Ideas

- a. Which two factors gave Americans more leisure time?
- b. What effect did radio have on sports?
- c. Why was Harlem called the unofficial capital of black America?

Critical Thinking
Evaluating:

What contributions to popular culture occurred in the 1920s?

Activity Options

Art & Technology

Find an image and important facts about a noted person in this section. **Draw** a trading card or plan that person's home page for the internet.

African-American Baseball Leagues

More than a million African Americans left the South from 1917 to 1929. They were lured to large cities by the offer of higher wages and the increased demand for labor. It was during this period of growing urbanization that the Negro baseball leagues were formed. The map on the next page shows cities with notable teams in the 1920s and 1930s. Each city had an African American population large enough and wealthy enough to support a team.

Most teams were owned by African Americans. To raise money for expenses, teams needed to play as many games as possible. Thus, they traveled constantly. Stopping in big cities and small towns, they played other African-American teams or white amateur and professional teams. Eventually, teams of African-American all-stars played exhibitions against professional white all-stars.

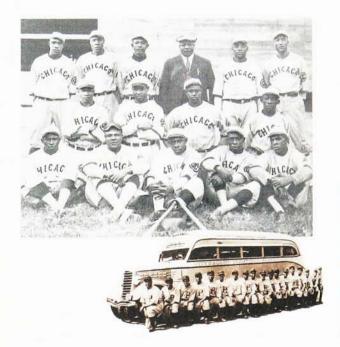
Artifact File

Memorabilia

The baseball jersey and shoes pictured here are part of the uniform worn by a player from one of the traveling teams of the period.



In 1920, Andrew "Rube" Foster persuaded owners of seven other teams to join him in forming ule ili st ivegro pasepali league—the Negro National League, Foster (pictured in suit at right) was a former player and then owner of the Chicago American Giants. ine ivegro American League got started in 1937. After major league baseball was integrated by Jackie Robinson in 1947, the Negro leagues began to decline.



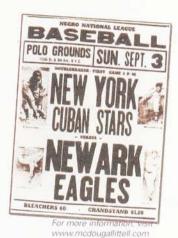
Pittsburgh Crawfords

The Pittsburgh Crawfords, shown here with the teams in the Negro leagues in the 1930s. The success of traveling teams helped to boost revenues of African-Americanowned hotels and restaurants in every city that they played.

On-Line Field Trip

National Baseball Hall of Fame and Museum

The Negro leagues have been widely honored. This poster is from the National Baseball Hall of Fame and Museum in Cooperstown, New York. In Kansas City, Missouri, the Negro Leagues Baseball Museum also keeps the memory of these teams alive.





Cities with Notable African-American Baseball Teams 1920s-1930s

1	Atlanta	1920
2	Birmingham Black Barons	1920
3	Chicago American Giants	1920
4	Kansas City Monarchs	1920
5	New York Cubans	1923
6	Memphis Red Sox	1923
7	Homestead Grays	1929
8	Pittsburgh Crawfords	1932
9	Philadelphia Stars	1933
10	Newark Eagles	1936
11	Cincinnati Tigers	1937
12	Baltimore Elite Giants	1938

Connect to Geography

Location

Which cities had notable teams in the 1920s and 1930s?

Region

Why do you think that African-American teams were located mainly in cities in the East? (See Geography Handbook, pp. 4-5)

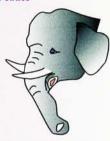
Connect to History

Evaluating

How did the migration of African- Americans from the South to Northern cities lead to the rise of Negro baseball leagues?

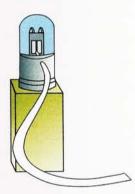
Visual Summary

The Roaring Twenties Politics



Republican presidents Warren G. Harding and Calvin Coolidge supported business in the United States and isolationism in foreign relations.

Economics



Business prospered in the 1920s, helped by government support and the development of new technologies. But some groups, notably farmers, faced hardships.

Terms and Names - Briefly explain the importance of each of the following.

- · Warren G. Harding
- Isolationist
- NAACP
- Fundamentalism
- Harlem Renaissance
- Calvin Coolidge
- Kellog-Briand Pact
- Marcus Garvey
- Mass Media
- Lost Generation

Review Questions - The Business of America

pgs. 709-712

- 1. How was the foreign policy of Harding and Coolidge isolationist?
- 2. What was the economic theory of laissez-faire?
- 3. Which factors contributed to the nation's growing wealth during the 1920s?

pgs. 713-716

Changes in Society

- 4. What changes took place in the behavior and values of young people during the 1920s?
- 5. What was the image of the flapper?
- 6. How did the 19th Amendment change women's lives?
- 7. What were some of the divisions in society in the 1920s?

pgs. 717-723

The Jazz Age and the Harlem Renaissance

- 8. What were three examples of American popular culture?
- 9. Which factors contributed to the popularity of sports?
- 10. Why are the 1920s also called the Jazz Age?

Visual Summary

The Roaring Twenties Technology



Technological developments, such as the assembly line, and cheap, available sources of power, such as electricity and petroleum, powered the new prosperity.

Society and Culture



Changes in society brought new attitudes and lifestyles, especially for young people and women. Movies, radio, jazz, and sports became popular forms of entertainment.

Interact with History

American life discussed

in this chapter would

In your opinion,

which changes in

have affected you the most?

Critical Thinking

Using Your Notes

Using your completed chart, answer the questions below:

- a. What role did govern ment choose to play in the economy?
- b. How did technology affect life during the 1920s?
- c. How did popular culture change the habits of society?

Categories	Main Ideas	
Government		
Business		
Agriculture		
Technology		
Society		

Analyzing Leadership

Popular Culture

Think about the political leaders discussed in this chapter. Which of their characteristics made them good or poor leaders?

Applying Citizenship Skills

In what other ways could people have protested Prohibition besides disregarding the law?

Theme: Science and Technology

How did advances in technology contribute to the prosperity of the United States during the 1920s?

Drawing Conclusions

Explain how the African-American migration to the North and the spread of jazz contributed to the cultural diversity of the United States?

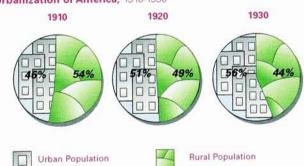
History Skills

Interpreting Graphs Study the graph and then

answer the questions:

- a. What was the total percentage increase in the urban population from 1910-1930?
- b. During which 10-year period did the United States become more urban than rural?

Urbanization of America, 1910-1930



Source Historical Statistics of the United States

Interpreting Primary Sources

Read the poem below, which was written by Langston Hughes, an African American. Then answer the questions that follow:

I, too, sing America.

I am the darker brother. They send me to eat in the kitchen When company comes, But I laugh, And eat well, And grow strong.

Tomorrow,
I'll be at the table
When company
comes.
Nobody'll dare
Say to me,
"Eat in the kitchen,"
Then.

Besides, They'll see how beautiful I am And be ashamed—

I, too, am America.

Langston Hughes, "I, Too"

- a. What is the subject of the poem?
- b. What change does Hughes see taking place?

Alternative Assessment

Interdisciplinary Activity Language Arts

Writing a Report

Do research to learn how cars are made on an assembly line today. Describe the procedure for manufacturing a car from start to finish. Include the method of production, materials used, and the time it takes to make a car. Share your report with the class.

Cooperative Learning Activity

Writing or Drawing an Advertisement

National advertising became an important way to promote new products to the public during the 1920s. Working in a small group, write a radio ad or draw a magazine ad for a product that made life easier during the 1920s, such as a car, refrigerator, toaster, vacuum cleaner, sewing machine, fan, or washer. Make sure your advertisement covers the following ideas:

- a. Do research on the product. Describe the product in the 1920s.
- b. How will the product improve life for Americans?
- c. How much does the product cost?

Technology Activity

Planning a Web Page on the Roaring Twenties

The 1920s were years of great creativity. American popular culture was being spread throughout the nation and abroad by radio and movies. Use the library or search the Internet for information about the music, fashions, fads, and celebrities of the period.

Visit www.mcdougallittell.com to learn more about the Roaring Twenties.

Create a Roaring Twenties Web page by following suggestions below:

- Select appropriate images of personalities, fashions, and fads.
- Include biographical information and quotations.
- · Choose music that captures the spirit of the era.
- Decide which Web sites would be good links for visitors to your page.

Portfolio Activity

Option 1

Review your section and chapter assessment activities. Select one that you think was your best work. Use comments made by your teacher or classmates to improve your work, and then add it to your portfolio.

Option 2

Review the questions that you wrote for "What Do You Want To Know?" on page 708. Then write a brief report explaining the answers to your questions. Add your work to your history portfolio.