NARRATIVE AS MNEMONIC: THE EFFECT OF ORGANIZATIONAL STRUCTURE AND COMMUNICATION LOAD ON RETENTION

by

KATIE LYNN GLONEK

Bachelor of Science, 2005
Texas Christian University
Fort Worth, Texas

Submitted to the Faculty
Graduate Division
College of Communication
Texas Christian University
in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE

December, 2007

NARRATIVE AS MNEMONIC: THE EFFECT OF ORGANIZATIONAL STRUCTURE AND COMMUNICATION LOAD ON RETENTION

Thesis approved:

Major Professor

Graduate Studies Representative

For the College of Communication

TABLE OF CONTENTS

Narrative as Mnemonic: The Effect of Organizational Structure and Communication Load on Retention

Memory is often termed the lost canon of rhetoric (Jamieson, 1988). The printed word is a relatively recent development in the span of human existence, and the media we take for granted today were unknown a mere century ago. Consequently, humans have undergone a transition from recalling facts and events through storytelling, or interpersonal narratives, to relying upon recorded and verifiable material. Today, many communicators encode information using a semantic, expository organizational pattern. Contemporary learning environments provide a perfect illustration of this: most instructors choose to present lectures in outline form, largely consisting of facts, dates, and lists, rather than using a narrative. However, instructional communicators may find that narrative approaches, by providing a cogent storyline, offer more in-depth processing of material. Given the importance of memory in human communication, the results of this change in presentational style warrant further consideration.

Memory is an important area of academic study and includes many subcategories such as mnemonic devices (Hwang &

Levin, 2002), stages of cognitive development on memory (Bauer, 2002), autobiographical memory (Spinhovem, Bockting, Schene, Koeter, Wekking, Williams, DELTA Study Group, 2006), and diseases which impact human memory (Westerberg, Paller, Weintraub, Marsel-Mesulam, Mayes, Holdstock, Reber, 2006). While these research areas continue to expand, instructional researchers have yet to consider how the structure of common human speech may impact the ability of listeners to recall information. Nonetheless, memory is a crucial aspect of human communication as evidenced by its primary role in the process of decoding spoken language (Bostrom, 1996; Bostrom & Waldhart, 1980, 1988).

One approach to the transmission of information is storytelling, a classic form of communication which dates back to ancient times (Lawrence, 2002; Vansina, 2006). Recent work has focused on the value of storytelling in health communication (Launer, 2006), group therapy (Parker & Wampler, 2006), family communication (Koenig Kellas, 2005), education (Verhallen, Bus, Adriana, & de Jong, 2006), and socialization (Soenksen & Alper, 2006). However, despite the relationship that exists between communication and memory (Bostrom, 1996) and the impact that storytelling has on effective communication (Anderson, 2001), researchers have not fully

considered the extent to which storytelling may facilitate the cognitive processes associated with memory or learning. The present study is designed to explore the impact of instructor presentation style (narrative versus expository) and the use of normal versus compressed presentation rates on retention of information.

Background and Statement of the Problem

Communication requires memory. Memory is the repository of language and nonverbal behaviors, of past events crucial to understanding the context of the current communicative transaction, and of the implicit scripts that have been learned over time by responding to situations similar to an event at hand (Schank, 1980). It therefore stands to reason that improved memory can be important in increasing communication competence. Nowhere is this more apparent than in instructional communication, where the entire purpose of the communicative event is to inspire and instill learning.

Early memory researchers, such as Atkinson and Shiffrin (1968), initially determined that humans have two types of memory: short-term (STM), or working memory, and long-term memory (LTM). Functionally, these two types of memory are very different in regard to speed, size, organization, and duration. While this discovery provided a solid foundation for

the study of memory, episodic memory theory (Tulving, 1991) has focused primarily on another set of important systemic distinctions. Episodic memory theory posits that there are five major memory systems that the average human uses on a daily basis: episodic, semantic, procedural, perceptual representation, and STM (Tulving, 1991). While each of these memory systems serves a specific purpose, they function in harmony to achieve optimal memory capabilities, which researchers term the *criterion of functional incompatibility* (Sherry & Schacter, 1987). However, for the sake of this study, only semantic and episodic memory systems will be discussed.

According to Tulving (1993), "Semantic memory registers and stores knowledge about the world in the broadest sense and makes it available for retrieval. . . [it] enables individuals to represent and mentally operate on situations and objects" (p. 67). In other words, semantic memory is the act of memorizing bits of information by forming associations or links based on meaning. For example, when someone must remember trivia (facts, vocabulary words, and so forth) semantic memory is utilized. Tulving (1993) goes further to describe episodic memory: "[it] enables a person to remember personally experienced events . . . in subjective space and

time" (p.67). In other words, episodic memory is the act of memorizing information by following a sequential order of events. By definition, it must encompass at least two distinct points in time. For example, episodic memory is used when one must follow the parts of a story.

While episodic and semantic memories are essential for everyday memory use, they are functionally very different (Sherry & Schacter, 1987). Semantic memory processes involve objects and their connections to the rest of the world. One of the ways to increase semantic memory is to use mnemonics, which are devices that "supply meaning, integration and cues where none naturally exist" (Morris, 1979, p. 39). In other words, mnemonics transfer information from STM to LTM. Commonly used mnemonics include loci, a visuo-spatial method that involves memorizing a specific location (De Beni, Moe, & Cornoldi, 1997), as well as acrostics and acronyms (Carney, Levin, & Levin, 1994).

Episodic memory processes, on the other hand, not only involve objects and their connections, but also their sequential structure, unrelated events, and underlying emotions. This concept is important because these contextual elements can be entirely absent in a learning environment where information is presented semantically. Conversely,

stories may be compelling, may involve affect as well as cognition, and can better join major concepts with contextual details. As a result, episodic organization can be seen as having greater consequence. Sequential information provides for detailed, in-depth processing of material, a feature often cited in research as an important precedent of effective learning (Phillips & McNaughton, 1990). For example, dramatic movement, affect, and the use of relationships in episodic structures often involve both careful thinking and personal meaning. In other words, stories that facilitate episodic memory recall may increase *depth of processing*. The depth of processing hypothesis posits that the more carefully and deeply one thinks about a message, the more one will be able to form the mental associations required for LTM (Lockhart, Craik, & Jacoby, 1976). Thus, using stories instead of mnemonics may be a more effective strategy because LTM is essentially organized by detailed connections. However, in order to fully understand the relationship between episodic memory and the use of narrative as a mnemonic, it is necessary to understand how the use of different presentation styles affects learning and recall.

Narrative and Expository Presentation Styles

The oral tradition references ancient times when storytelling was used to teach lessons, record events, and provide identity to groups (Vansina, 2006). Prior to the 1980s, there had been a declining appreciation for the value of storytelling: "Fearing that the whole concept of an oral tradition would be lost, people started to rediscover the art of storytelling in an attempt to preserve not just some of the tales themselves but also the manner of telling them" (Lawrence, 2002, p. 27). Storytelling has social and historical importance and there is increasing evidence to suggest that the use of stories is beneficial in psychologically therapeutic contexts (Parker & Wampler, 2006) and as an educational tool (Verhallen et al., 2006). In instructional communication environments, storytelling can encourage more accurate and meaningful memory recall (Phillips & McNaughton, 1990). However, in order to fully understand how storytelling can improve learning and recall, it is necessary to understand how stories are constructed.

Stories are presented in narrative form and are episodic by nature; they have a basic, temporal structure that consists of a setting and an episode (or series of episodes) and, typically, an obstacle or conflict that must be overcome (Just

& Carpenter, 1987). By adding in general knowledge to help with memory coherence and comprehension, stories bring context to content. This is important to note because *cognitive schemata* guide the comprehension of, and retrieval of, discourse (Bransford & Johnson, 1972). In other words, humans have existing mental scripts for events and these scripts can affect the memorization of a story. Bransford and Johnson (1972) discovered this insight in the context of a study in which they asked participants to interpret a short passage. They found that unless the passage had a suitable title, participants found it very difficult to remember. However, once they entitled the passage *Washing Clothes*, participants were able to understand and remember it more due to their cognitive schema for *how to wash clothes*. Still, while schemata may be helpful in the initial comprehension and general memory of the event, schemata can also interfere with the actual recollection of the story, as information is added or omitted (Bower, Black, & Turner, 1979).

Many times storytellers, whether consciously or unconsciously, omit information during retellings and elaborate on certain aspects of the story. Evidence of this discovery dates back to Allport and Postman's (1947) memory studies which documented systematic omissions when

participants retold stories. Furthermore, the presence of schemata can affect retellings as well. For example, Anderson and Pichert (1978) had participants read a story from either a home-buyer perspective or a burglar perspective. Their results indicated that the participants who read the home-buyer perspective were able to retrieve different memories from those who read the burglar perspective. In summary, while information can be lost or specific details can be highlighted during retelling, such alterations tend to be systematic and explicable. Schema theory is one means by which these variations can be accounted.

An important part of human socialization is the everyday experience of interacting with others. Many interactions include narrative communication: “Narrative discourse is viewed as personal and spontaneous and can include various kinds of socially meaningful information to participants” (Cicourel, 2004, p. 36). In other words, “through life stories individuals and groups make sense of themselves; they tell what they are or what they wish to be . . .” (Cortazzi, 2001, p. 388). In fact, according to the narratory principle, “human beings think, perceive, imagine, and make moral choices according to narrative structures” (Sarbin, 1986, p. 8). Clearly then, narrative communication helps us process

information because the structure is much more predictable (Fletcher, 1986).

Still, there are situations where people must engage in expository communication. Broadly defined as any discourse that conveys factual or technical information in a semantic structure (Nelson, 1998), expository communication is commonly used in instructional settings. Instructors regularly engage in this presentation style when delivering a course lecture, when clarifying explanations and directions, and when guiding class discussion (Hall, Markham, & Culatta, 2005). Further, Nelson (1998) concludes that "expository discourse competence is critical to success in school because expository text structure is used in most content textbooks and to teach lectures" (p. 418).

While the focus of this study is on the use of oral presentation styles, there has been much research on written presentation styles. According to the constructionist theory of narrative comprehension (Graesser, Singer, & Trabasso, 1994; Zwaan, Langston, & Graesser, 1995), if a text is organized in a narrative format it may be recalled at a higher rate than an expository text due to the inferences readers make. This theory is based on the *search (or effort) after*

meaning principle, which suggests that when reading stories, "readers attempt to construct a meaning representation that . . . explains why actions, events, and states are mentioned in the text" (Graesser, et al., 1994, p. 371). In other words, when reading stories, readers continually make inferences, but when reading expository texts, it is more difficult for readers to make inferences because the content and organization can be unfamiliar (Vidal-Abarca, Martinez, & Gilabert, 2000).

Despite these findings, the constructionist theory of narrative comprehension has not been applied to oral communication. This lack of application can be explained by the significant differences between oral and written communication. In oral communication, the listener has no control over presentation rate and is unable to return and review (reread) material. Additionally, oral communication can be less formal, more direct, and more idiomatic than written communication. Consequently, while research that has explored the differences between written narrative and expository forms is insightful (Graesser, et al., 1994; Zwaan, et al., 1995; Vidal-Abarca, et al., 2000; Pearson & Duke, 2002; Wolfe, 2005), there remains a gap of research on the differences between oral narrative and expository forms. In order for

instructors to better understand how to effectively communicate in a way that can increase student recall, this gap needs to be filled.

Presentation Rate

Capacity theory (Kahneman, 1973) proposes that humans possess a limited capacity information processing system. In other words, when we try to apprehend meaning and retain content, there is a threshold for how much information we can successfully manage. When the accumulation of information approaches or exceeds processing capacity, processing errors result. This often occurs during activities that require effortful processing such as listening or reading for comprehension and retention (Hasher & Zacks, 1979).

Presumably, by providing an organizing schema, narrative organization would ease processing requirements and, consequently, increase recall in LTM. As previously noted, the constructionist theory of narrative comprehension supports this perspective by demonstrating that inference formation is a natural feature of narrative, but not expository text (Graesser et al., 1994). However, it should be noted that concepts and specific facts that are superfluous to the schema of the narrative could be disregarded at a greater rate than

with expository organization, especially at higher presentation rates.

Presentation rate can be defined as information quantity divided by time. Studies conducted by King and Behnke (1989, 2000), found that there is an inverse relationship between LTM and presentation rate, and that a compression rate of 45% is adequate to uncover these significant differences in LTM. While these findings provide broad support for a capacity theory view, it is not known how information organized in expository versus narrative form will affect information processing. Thus, this study attempts to bridge the gap between information processing research and presentation style research.

Specific Rationale

Stories involve a speaker/audience relationship that can foster human connection (Cortazzi, 2001), increase audience interest and involvement, and provide more relevant content (Verhallen et al., 2006). In the college classroom, instructors who tell stories to students in order to convey key pieces of information and content, rather than relying on traditional lectures, may find that the use of such narratives increases students' interest and memory recall.

One of the most respected theories in cognitive psychology is Craik and Lockhart's (1972) levels of processing theory (LPT). LPT posits that there are different stages for sensory, STM, and LTM, and that information is processed at various levels simultaneously, depending on its characteristics. In other words, the deeper the processing, the more the information will be remembered. One example of deeper processing is demonstrated when the information being presented for recall references several contexts, such as a visual image and a story.

From the LPT perspective, using a narrative presentation style can provide instructors with a means to convey information to students for more detailed, in-depth processing of material. In order to remember a story, students must use episodic memory processes that can not only cue objects and their connections but also their sequential structure, unrelated events, and underlying emotions. Using stories instead of mnemonics may increase memory recall because LTM is essentially organized by drawing listeners and readers to the detailed connections between and among concepts. Furthermore, Sarbin's proposed narratory principle states that "human beings think, perceive, imagine, and make moral choices according to narrative structures" (1986, p. 8). For the

foregoing reasons, it should be expected that presentations employing narrative structure will be more memorable than presentations utilizing only expository structure.

Considering the body of research in memory and presentation style and rate, the following hypotheses are posited:

H_1: Information presented in a narrative form will be recalled at a higher rate than information presented in an expository form.

H_2: Information presented at a normal presentation speed will be recalled at a higher rate than information presented at a compressed presentation speed.

RQ: Will there be an interaction between presentation speed and organizational form such that a narrative presentation will be less affected by increased speed than an expository presentation?

Method

Participants

Two hundred and sixty-two undergraduate students enrolled in an introductory university-level communication performance course served as participants in the study. Participants included 65 freshmen, 100 sophomores, 50 juniors, and 45 seniors, typically 18–22 years of age (M = 19.64, SD = 1.655).

There were 113 males and 149 females. Participant anonymity was maintained and appropriate procedures regarding use of humans as research participants were followed, including screening of procedures by a review committee.

Procedures

Intact lab sections of approximately 25 students each were randomly assigned to one of the five experimental conditions: normal rate narrative, compressed rate narrative, normal rate expository, comprssed rate expository, and a control group.

Upon arrival at class, a confederate asked participants to complete consent forms and subsequently provided participants with standardized instructions. The confederate then played two audio files for the participants: one audio file indicated a list of 10 learning objectives the participants should be able to achieve during the presentation, and the other audio file operationalized the experimental conditions, providing information in either narrative or expository form at either a normal or compressed rate. Once the audio files had played, the participants continued with class as usual. Approximately five minutes before the end of the class period, the confederate came back into the room and distributed a survey to each participant to

fill out in response to the presentation. In the case of the control group, the participants did not hear any audio files prior to completing the survey.

Experimental Manipulations

Both the narrative and expository presentations were 948 words in length. The narrative material consisted of a basic storyline: an introduction, conflict, and resolution (See Appendix A). The expository material consisted of an introductory paragraph that introduced the topic, followed by three main points about the topic (See Appendix B).

Depending on the experimental condition to which they were assigned, participants received the information at either normal or compressed (30% compression) presentation rates. Thirty percent compression has been shown to tax processing capacity sufficiently to impact long-term (though not working) memory (King & Behnke, 1989). These rates were attained through Audacity, a computer software program that can manipulate recorded speech. Audacity was able to compress the original recording (normal) of five minutes into a recording that only lasted three and one-half minutes (compressed), while leaving pitch and intelligibility unaffected.

Instrumentation

The survey (See Appendix C) given to each participant was comprised of questions that measured the participant's cognitive learning. Cognitive learning (recall) was measured by structuring questions in a modified cloze procedure, which Taylor (1953) defines as "a method of intercepting a message from a 'transmitter' (writer or speaker), mutilating its language patterns by deleting parts, and administering it to 'receivers' (readers or listeners)" (p. 416). This cloze procedure consisted of 10 significant phrases from both the narrative and expository audio files with keyword(s) left as blanks. Exact word replacements, word stems, and synonyms determined in advance were accepted as correct. Ten prompts were stated before the presentation began. Each prompt was a learning objective for a particular cloze question item, such as, "You should not use the _____ organizational format because it is too difficult to follow" (See Appendix C).

Results

As a manipulation check, an a priori t-test compared survey responses of the control and experimental groups. Test scores from the experimental groups (M = 4.75; SD = 2.04) were significantly higher than scores from the control group (M = 2.33; SD = 1.08), $t(238) = 8.76$, $p < .05$.

The first hypothesis, that information presented in narrative form will be recalled at a higher rate than information presented in an expository form, was supported, $F(1, 176) = 14.47$, $p < .001$, $eta^2 = .072$. The average number of correct answers for participants who heard information presented in narrative form ($M = 5.29$: $SD = 2.1$) was higher than the average number of correct answers for participants who heard information presented in expository form ($M = 4.2$; $SD = 1.8$).

The second hypothesis, that information presented at normal presentation rate will be recalled at a higher rate than information presented at compressed presentation rate, was supported, $F(1,176) = 6.73$, $p < .01$, $eta^2 = .034$. The average number of correct answers for participants who heard information presented at normal rate ($M = 5.11$; $SD = 2.2$) was higher than the average number of correct answers for participants who heard information presented at compressed rate ($M = 4.38$; $SD = 1.8$).

The research question, which sought to investigate a possible interaction between organizational form and presentation speed did not provide significant findings, $F(1, 176) = 3.46$, *n.s.* A priori power calculation for a medium

effect size of .25 was .85; a priori power calculation for a small effect size of .10 was .18 (Cohen, 1988).

Discussion

The principle goal of this research was to examine the relationships between presentation style, presentation rate, and recall. Overall, the findings of this study support the claim that the ability to recall information is partially dependent on whether the information is presented in expository or narrative form and at a normal or compressed rate. Specifically, hypotheses one and two were confirmed: audience members retain more information when it is presented in a narrative style and when it is presented at a normal presentation rate.

Hypothesis one, that information presented in a narrative form will be recalled at a higher rate than information presented in an expository form, was supported. One possible explanation for this finding can be found in the constructionist theory of narrative comprehension (Graesser, Singer, & Trabasso, 1994; Zwaan, Langston, & Graesser, 1995). While this theory focuses on text structure, this significant finding (H_1) suggests that it can also be applied to oral presentation. Vidal-Abarca, Martinez, and Gilabert's (2000) found that narrative texts were easier to read than expository

texts. The implications from that study can now include oral presentations as well: when reading stories (and listening to presentations) people continually make inferences, but when reading expository texts (and listening to expository presentations) it is more difficult for people to make inferences because the content and organization can be unfamiliar.

Hypothesis two, that information presented at a normal presentation speed will be recalled at a higher rate than information presented at a compressed presentation speed, was also supported. A logical explanation for this finding can be found in Kahneman's (1973) capacity theory. This theory posits that humans have a threshold for how much information they can process, and when the accumulation of information approaches or exceeds processing capacity, processing errors result. Consistent with previous research (King and Behnke, 1989; King & Behnke, 2000), this significant finding (H_2) reinforces the value of capacity theory.

The results of the research question (Will there be an interaction between presentation speed and organizational form such that a narrative presentation will be less affected by increased speed than an expository presentation?) did not appear to be significant. More specifically, the earlier

presumption that a narrative format would ease processing requirements by providing an organizing schema and, consequently, increase recall in LTM, was false. One explanation for this finding can be found in the possible interaction between memory and presentation rate. Essentially, learners perform better with narrative information, particularly when they have the time available to deeply process that narrative structure. While a significant interaction effect did not emerge in the present study, a visual inspection of the cell means tends to suggest that there may be a relationship between the variables. Coupled with the relatively low power of the interaction term, it is possible that such an interaction does exist and that a type II error was present.

The theoretical importance of narrative versus expository forms extends well beyond the bounds of information processing theory. Much in the way that communication theory development has invoked the concept of narrative, Fisher's (1984, 1987) narrative paradigm argues that the need to tell stories is fundamental to the human condition, describing humans as *homo narrans*, "man, the narrator" (1987, p. 24). Bormann's fantasy theme analysis extends the importance of stories, anecdotes, jokes, and so forth, into the realm of shared narratives

(Bormann, 1993; Bormann, Cragan, & Shields, 2001). Based on this view, groups of individuals reach agreement (convergence) on a given topic through similarities in personal narratives. Storylines that appear most universal are viewed as *archetypes*, and have great influence on shaping the individuals understanding of events and meaning in a specific situation. Given this rich theoretical base, it is not then surprising that narrative forms can impact *learning* and *memory*.

While this study produced significant findings, the results should be interpreted with caution given the inherent limitations of the research design. There are two limitations that must be discussed. First, measurement of learning is always problematic and standard indices of reliability may not be the best means to assess the validity of learning assessment. Such was the case in the present study; however, it should be kept in mind that participants were given specific prompts regarding the information they would be asked to recall, were given that information in a standardized, controlled manner, and retention was assessed by the actual recall of the relevant terms.

Second, there were no distinctions made between learning styles. Communication and education researchers have

identified a variety of ways students may better comprehend and understand information depending on the way it is presented to them. While this study did not investigate each participant's preferred learning style, experimental procedures should provide some assurance that learning style did not introduce any systematic error.

Still, by integrating research on memory and varying presentational style, the findings from this study yield practical implications. Instructional professionals, for example, will be able to modify the way they present information to students in order to increase student retention. However, it is important to note that while teaching in narrative form may be helpful for some classes, such as introductory courses that seek to help students relate to unfamiliar material, it may not be as helpful for others, such as upper level classes where students are already familiar with the material or where the goal is comprehension, application, synthesis, and so forth rather than just retention. In other words, while the findings in this study may not cause teachers and other professionals to immediately begin to rewrite all of their course material in narrative form, the study does make the point that instructors and

public speakers should become more mindful of the manner in which they are presenting material to their audiences.

Also, one could argue that while there was a significant difference between narrative and expository presentation styles at a normal presentation rate, the small effect size may not warrant a realistic concern. Despite this assertion, instructors who are able to use more narratives in their lectures, perhaps by incorporating stories that are content relevant and help illustrate course material, may reap a small (but significant) benefit by increasing student recall. As a result, it is important to present material in a compelling fashion in order to gain audience attention and increase retention. If instructors and public speakers can, when practical, be adequately flexible so as to present information in a narrative rather than an expository style, their presentations will be more memorable.

While this study has begun to fill the gaps between memory, presentation style, and presentation rate research, there is still a need for further theoretical development. Future research should seek to overcome the limitations of this study by increasing the magnitude of the effect size, adding participant learning styles as an independent variable, and integrating this retention technique with specific

academic fields (such as engineering, business, and psychology) and specialized courses (such as introductory-level and senior-level classes). Another area of future research should include the investigation of the results of this study and how they relate to the serial position effect. According to this effect, the rate at which an item will be recalled depends on its position within the information set as a whole. By determining how these variables interact, scholars could further understand the relationship between memory and presentation style. To the extent that scholars can begin to develop these research areas, such knowledge may prove useful in increasing recall, and in turn, overall learning.

Appendix A
Narrative: Impromptu Speaking

Today you are going to hear a presentation on impromptu speaking. The ten objectives I would like you to learn from this presentation include:
1. What is the primary reason people don't like to give an impromptu speech?
2. What is the proper organizational format to use for an impromptu speech?
3. How do you incorrectly prepare for an impromptu speech?
4. How do you correctly conclude an impromptu speech?
5. How do you correctly deliver an impromptu speech?
6. Which type of public speaking do we use in everyday communication?
7. How do you correctly transition between the main points of an impromptu speech?
8. How do you correctly begin an impromptu speech?
9. Which is the best way to prepare for an impromptu speech?
10. Which type of public speaking is the most formal?

Please listen to the following information carefully.

James hated public speaking, yet here he sat, on his first day of college, in a speech communication course.

"Good morning, class," Professor Miller announced as he walked up to the large podium in the front of the classroom. "There are three different types of public speaking: manuscript, extemporaneous, and there's one more. Does anyone know what the last one is?"

Amy, a girl that James had met at a party last weekend raised her hand: "Impromptu speaking—it's one that is prompted by an occasion rather than being planned in advance."

"Exactly. And even though impromptu speaking is done in every day interpersonal communication[6], why do you think most people still hate giving these types of speeches," Professor Miller asked Amy.

"People dislike giving impromptu speeches because of the anxiety they experience[1] that is caused by the uncertainty of the topic," she said.

"That's correct, and that is why delivering an impromptu speech in class tomorrow will be your first assignment," Professor Miller said.

James was dumbfounded. The only experience he had was with the most formal type of public speaking which is manuscript[10]. He sat in his seat for the rest of class,

resenting the fact that he had to spend his evening writing a speech.

Later that evening, James began to look through his communication textbook so he could work on his speech. Every time James read the word "speech" he shuddered. He hadn't given a speech since his 8th grade student council speech, or as he remembered it "the disaster." The disaster cost him the student body president election. If only he would have remembered his manuscript maybe he wouldn't have froze on stage and eventually run off in embarrassment. As James shook his head and tried to shake the memory from his thoughts, he reevaluated the current assignment. All I need to remember is what the book says: When delivering an impromptu speech, you should collect your thoughts once the topic has been given and then speak confidently[8].

Refocusing his desk lamp, James began to leaf through the campus newspaper to get himself familiar with popular issues on campus that might be given to him as an impromptu topic. Even though he was tempted to just wing it on the day of his presentation he remembered Professor Miller advising him: When giving the speech, do not show up unprepared[3].

As he was reading the back page, Zach, his roommate came into their dorm room. "Hey, James. What are you working on," Zach asked.

"Just preparing for my impromptu speech. Have you ever done one of these things," James asked, hopeful that Zach might be able to help him out.

"Yeah, all the time in high school. I was in forensics club, remember? Have you started creating a generic outline," Zach asked.

"Not yet," James said.

"Well, have you thought about how to organize it? I know it's hard because you don't know your topic yet, but when organizing your speech you should not use the spatial organizational format because it is too difficult to follow[2]. Instead, you need to keep it simple."

"Yeah, I heard that in class today. But what about transition statements? I don't know how to make them seem natural," James said as he began to jot down notes.

"Transitions in an impromptu speech should be simple[7]. Something like, "My first point is…" "My second point is…" even if it seems a bit choppy," Zach said.

"Oh okay," James said as he thought of another question for Zach. "What about the conclusion? Is it true that when concluding the speech, you should summarize your main points and add a closing statement[4]?"

“Yeah that’s true. It is the best way to end the impromptu speech,” Zach said.

“Well hey, do you mind if I practice with you for a few minutes? Professor Miller told us that the best way to practice delivering an impromptu speech is to have someone give you a topic and then speak for two minutes[9],” James said as he stood up and prepared himself to speak.

“Sure. Your topic is… The university should create more parking spots,” Zach said as he turned the volume down on the TV so he could hear James speak.

The next day as James got up to present his speech, the awkward butterflies he knew too well began to flutter inside his stomach.

“James, your topic is,” said Professor Miller as he looked at his topic sheet, “the university should only serve vegetarian meals on campus.”

James glanced down at the podium to collect his thoughts. When he looked up at the audience, all he could see was a sea of faces staring right back at him. He froze—but only for a few seconds. Repressing that old memory from middle school, James immediately began his speech and focused only on the present.

Almost instantly, the delivery he had practiced last night came back. When new ideas popped up in his mind, he remembered what Professor Miller had said: During the impromptu speech if other ideas come to you after you start speaking you should follow your instincts[5]. James let the new ideas guide the direction of the speech instead of just sticking to his generic outline. As he concluded his speech the audience clapped in approval.

Sitting back down in his seat, James nonchalantly wiped the beads of sweat off of his brow and smiled. That wasn’t so bad, he thought to himself. Here James sat, on his second day of college, in a speech communication course, and he already changed his mind about public speaking. Who knows what else would change his mind during the rest of his college career.

Appendix B
Expository: Impromptu Speaking

Today you are going to hear a presentation on impromptu speaking. The ten objectives I would like you to learn from this presentation include:
1. What is the primary reason people don't like to give an impromptu speech?
2. What is the proper organizational format to use for an impromptu speech?
3. How do you incorrectly prepare for an impromptu speech?
4. How do you correctly conclude an impromptu speech?
5. How do you correctly deliver an impromptu speech?
6. Which type of public speaking do we use in everyday communication?
7. How do you correctly transition between the main points of an impromptu speech?
8. How do you correctly begin an impromptu speech?
9. Which is the best way to prepare for an impromptu speech?
10. Which type of public speaking is the most formal?

Please listen to the following information carefully.

There are three different types of public speaking: manuscript, extemporaneous, and impromptu. The most formal type of public speaking is manuscript[10], which is a speech formally planned in advance and usually consists of a written script. Next, there is extemporaneous, which is a speech that is created in advance but only in outline form so that during the speech the speaker has room to elaborate on certain points. Finally, there is impromptu, which is a speech prompted by the occasion rather than being planned in advance. This last type, impromptu, is the focus of today's presentation.

Impromptu is often used in meetings, formal dinners, receptions, receiving an award, round-table discussions, and speech competitions. Across the board, people dislike impromptu speeches because of the anxiety they experience[1] that is caused by the uncertainty of the topic. When delivering an impromptu speech, you should collect your thoughts once the topic has been given and then speak confidently[8]. While this seems like an unnatural way to speak, impromptu speaking is done in every day interpersonal communication[6]. The nice thing about impromptu speaking versus the other types is that the audience is easier to deliver to, because they understand the situation and have lower

expectations than they usually would in a speech that was prepared in advance.

Before you give an impromptu speech, there are a few things you can do to prepare. First, review a few copies of the newspaper and keep yourself up to date with current events. Once you have done that, formulate your opinions about some of the popular issues so that you can sound more credible about your topic. Most importantly, even though you might be tempted to just wing it on the day of your presentation, take my advice: when giving the speech, do not show up unprepared[3].

Another way to prepare for an impromptu speech is to create a "canned" outline that you can use regardless of the specific topic. When creating a canned outline, the first part to work on is the introduction. In the introduction, confidently state the purpose of your speech and start off strong. If you at least plan your opening statement, this will get you started on the right foot. After all, just like with any formal speech, getting started is the most difficult part. While in the types of public speaking where you can create your introduction following the five-points model, you will not have time to do that in this speech. For an impromptu speech, simply state your purpose and preview your main points if you know them already.

Once the introduction is ready, the next part to work on is the body or main points. Again, if you have a chance, formulate the main points of speech ahead of time. However, because time and preparation are limited it may be difficult to do this. When organizing your speech you need to be careful when deciding on the format. For example, you should not use the spatial organizational format because it is too difficult to follow[2]. Instead, use one that is simple such as cause and effect or problem solution. Once you have your main points down, remember that transitions in an impromptu speech should be simple[7]. The easiest transition of all is to number your main points in a "The first point is, the second point is…" fashion.

After you have said all you need to say about the topic, the final part of the speech is the conclusion. When concluding the speech, summarize your main points and add a closing statement[4]." Don't just simply say "thank you" or "that's all I have to say."

When you are delivering your impromptu speech, the most important thing to remember is that you should not try to memorize what you will say. Trying to memorize words will only make you more nervous and you will find yourself thinking more about the words and not about the message. Instead of

depending on memorization, all you need to do is practice, practice, practice. The best way to practice delivering an impromptu speech is to have someone give you a topic and then speak for two minutes[9]. As soon as the topic is given to you, pause for a few moments and decide what your overall message is going to be. Then try to deliver an impromptu speech.

Many times during a public speaking event other ideas may come into your head after you start speaking. In some speeches it may be wise to ignore the new ideas but during the impromptu speech if other ideas come to you after you start speaking you should follow your instincts[5]. Just because the ideas didn't occur to you when you practiced does not mean they are bad. When delivering your speech, occasionally throw in an off-the-cuff remark, because you want to keep your style flexible and seem impromptu, not scripted. Keep it conversational and think of the audience as a group of your friends.

When you give an impromptu speech, odds are you will know your audience members. Don't be nervous about this because if you know them the audience will be able to give you feedback and this will help you improve your public speaking skills.

Still, whether you know the audience members or not, you need to maintain eye contact. When delivering your speech, look down briefly at your next main point, then look at your audience and speak from your heart. In sum, do not talk *at* the crowd; speak *with* your audience because they will be able to tell the difference.

If you follow these easy tips for preparation, organization and delivery, your next impromptu speech should be a success.

STUDENT QUESTIONNAIRE

A. Circle the word that best describes your classification:

Freshman Sophomore Junior Senior

B. Indicate your sex (circle one): M F

C. Write in your age: _____

For the next series of questions, recall the correct answer for each missing space.

1. People dislike giving impromptu speeches because of the _____.

2. You should not use the _____ organizational format because it is too difficult to follow.

3. When giving the speech, do not show up _____.

4. When concluding the speech, _____ and add a closing statement.

5. During the impromptu speech if other ideas come to you after you start speaking you should _____.

6. Impromptu speaking is done in every day _____.

7. Transitions in an impromptu speech should be _____.

8. When delivering an impromptu speech, you should _____ once the topic has been given and then speak confidently.

9. The best way to practice delivering an impromptu speech is to have someone _____ and then speak for two minutes.

10. The most formal type of public speaking is _____.

Bibliography

Allport, G. W., & Postman, L. J. (1947). *The Psychology of rumor.* Oxford, England: Holt.

Anderson, C. M. (2001). Communication in the medical interview team: An analysis of patients' stories in the United States and Hong Kong. *The Howard Journal of Communications, 12,* 61–72.

Anderson, R. C., & Pichert, J. W. (1978). Recall of previously unrecallable information following a shift in perspective. *Journal of Verbal Learning & Verbal Behavior, 17,* 1–12.

Atkinson, R. C., & Shiffrin, R. M. (1968). Human memory: A proposed system and its control processes. In K. W. Spence & J. T. Spence (Eds.), *Psychology of learning and motivation: Advances in research and theory* (pp. 89–195). New York: Academic.

Audacity. Retrieved October 17, 2007 from Audacity Web site: http://audacity.sourceforge.net/.

Bauer, P. J. (2002). Long-term recall memory: Behavioral and neuro-developmental changes in the first two years of life. *Current Directions in Psychological Science, 11,* 137–144.

Bormann, E. G. (1993). Fantasy theme analysis and rhetorical theory. In J. L. Golden, G. F. Berquist, & W. F. Coleman (Eds.), *The rhetoric of western thought* (pp. 365-384). Dubuque, IA: Kendall/Hunt.

Bormann, E. G., Cragan, J. F., & Shields, D. C. (2001). Three decades of developing, grounding, and using symbolic convergence theory (SDCT). *Communication Yearbook, 25*, 271-313.

Bostrom, R. N. (1996). Memory, cognitive processing, and the process of "listening." *Human Communication Research, 22,* 298-305.

Bostrom, R. N., & Waldhart, E. S. (1980). Components in listening behavior: The role of short-term memory. *Human Communication Research, 6*, 221-227.

Bostrom, R. N., & Waldhart, E. S. (1988). Memory models and the measurement of listening. *Communication Education, 37*, 1-13.

Bower, G. H., Black, J. B., & Turner, T. J. (1979). Scripts for memory in text. *Cognitive Psychology, 11,* 177-220.

Bransford, J. D., & Johnson, M. K. (1972). Contextual prerequisites for understanding: Some investigations of comprehension and recall. *Journal of Verbal Learning & Verbal Behavior, 11,* 717-726.

Carney, R. N., Levin, J. R., & Levin, M. E. (1994). Enhancing the psychology of memory by enhancing memory of psychology. *Teaching of Psychology, 21,* 171–174.

Cicourel, A. V. (2004). Cognitive overload and communication in two healthcare settings. *Communication & Medicine, 1,* 35–43.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences.* Mahwah, NJ: Lawrence Erlbaum Associates.

Cortazzi, M. (2001). Narrative analysis in ethnography. In P. Atkinson, A. Coffey, S. Delamont, J. Lofland, & L. Lofland (Eds.), *Handbook of* ethnography (pp. 384–394). London: Sage.

Craik, F. I. M., & Lockhart, R. S. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behavior, 11,* 671–684.

De Beni, R., Moe, A., & Cornoldi, C. (1997). Learning from texts or lectures: Loci mnemonics can interfere with reading but not with listening. *European Journal of Cognitive Psychology, 9,* 401–415.

Einstein, G. O., Morris, J., & Smith, S. (1985). Note-taking, individual differences, and memory for lecture

information. *Journal of Educational Psychology, 77,* 522-532.

Fisher, W. R. (1984). Narration as a human communication paradigm: The case of public moral argument. *Communication Monographs, 51,* 1-22.

Fisher, W. R. (1987). *Human communication as narration: Toward a philosophy of reason, value, and action.* Columbia: University of South Carolina Press.

Fletcher, C. R. (1986). Strategies for the allocation of short-term memory during comprehension. *Journal of Memory and Language, 25,* 43-58.

Graesser, A. C., Singer, M., & Trabasso, T. (1994). Constructing inferences during narrative text comprehension. *Psychological Review, 101,* 371-395.

Hall, K. M., Markham, J. C., & Culatta, B. (2005). The development of the early expository comprehension assessment (EECA): A look at reliability. *Communication Disorders Quarterly, 26,* 195-206.

Hasher, L., & Zacks, R. T. (1979). Automatic and effortful processes in memory. *Journal of Experimental Psychology: General, 108,* 356-388.

Hwang, Y., & Levin, J. R. (2002). Examination of middle-school students' independent use of a complex mnemonic system. *The Journal of Experimental Education, 71,* 25-38.

Jamieson, K. H. (1988). *Eloquence in an electronic age: The transformation of political speechmaking.* New York: Oxford University Press.

Just, M. A., & Carpenter, P. A. (1987). *The psychology of reading and language comprehension.* Needham Heights, MA: Allyn & Bacon.

Kahneman, D. (1973). *Attention and effort*. Englewood Cliffs, NJ: Prentice-Hall.

Koenig Kellas, J. (2005). Family ties: Communicating identity through jointly told family stories. *Communication Monographs, 72,* 365-389.

King, P. E., & Behnke, R. R. (2000). Effects of communication load, affect, and anxiety on the performance of information processing tasks. *Communication Quarterly, 48,* 74-84.

King, P. E., & Behnke, R. R. (1989). The effect of time-compressed speech on comprehensive, interpretive, and short-term listening. *Human Communication Research, 15,* 428-443.

Launer, J. (2006). New stories for old: narrative-based primary care in Great Britain. *Families, Systems, & Health, 24,* 336-344.

Lawrence, S. (2002, July). Once upon a time. *The Stage,* p. 27.

Lockhart, R. S., Craik, F. I. M., & Jacoby, L. L. (1976). Depth of processing, recognition and recall. In J. Brown (Ed.), *Recall and recognition* (pp. 75-102). London: Wiley.

Morris, P. E. (1979). Strategies for learning and recall. In M. M. Gruneberg & P. E. Morris (Eds.), *Applied problems in memory* (pp. 25-57). London: Academic Press.

Nelson, N. (1998). *Childhood language disorders in context: Infancy through adolescence.* Boston: Allyn and Bacon.

Parker, T. S., & Wampler, K. S. (2006). Changing emotion: The use of therapeutic storytelling. *Journal of Marital and Family Therapy, 32,* 155-166.

Pearson, P. D., & Duke, N. K. (2002). Comprehension instruction in the primary grades. In C. C. Block & M. Pressley (Eds.), *Comprehension instruction: Research-based best practices* (pp. 247-258). New York: Guilford Press.

Phillips, G., & McNaughton, S. (1990). The practice of storybook reading to preschool children in mainstream New

Zealand families. *Reading Research Quarterly, 25,* 196-212.

Sarbin, T. (1986). *Narrative psychology: The storied nature of human conduct.* New York: Praeger.

Schank, R. C. (1980). Language and memory. *Cognitive Science, 4,* 243-284.

Sherry, D. F., & Schacter, D. L. (1987). The evolution of multiple memory systems. *Psychology Review, 94,* 439-454.

Soenksen, D., & Alper, S. (2006). Teaching a young child to appropriately gain attention of peers using a social story intervention. *Focus on Autism and Other Developmental Disabilities, 21,* 36-44.

Spinhovem, P., Bockting, C. L. H., Schene, A. H., Koeter, M. W. J., Wekking, E. M., Williams, J. M. G., & DELTA Study Group. (2006). Autobiographical memory in the euthymic phase of recurrent depression. *Journal of Abnormal Psychology, 115,* 590-600.

Taylor, W. (1953). Cloze procedure: A new tool for measuring read-ability. *Journalism Quarterly, 30,* 415-433.

Tulving, E. (1993). What is episodic memory? *Current Directions in Psychological Science, 2,* 67-70.

Tulving, E. (1991). Concepts of human memory. In L. M. Squire, N. M. Weinberger, G. Lynch, & I. L. McGaugh (Eds.),

Memory: Organization and locus of change (pp. 3-32). New York: Oxford University Press.

Vansina, J. (2006). *Oral tradition: A study in historical methods.* New Brunswick, NJ: Transaction Publishers.

Verhallen, M. J., Bus, A. J., Adriana, G., & de Jong, M. T. (2006). The promise of multimedia stories for kindergarten children at risk. *Journal of Educational Psychology, 98,* 410-419.

Vidal-Abarca, E., Martinez, G., & Gilabert, R. (2000). Two procedures to improve instructional text: Effects on memory and learning. *Journal of Educational Psychology, 92,* 107-116.

Westerberg, C. E., Paller, K. A., Weintraub, S., Marsel-Mesulam, M., Mayes, A. R., Holdstock, J. S., & Reber, P. J. (2006). When memory does not fail: Familiarity-based recognition in mild cognitive impairment and Alzheimer's disease. *Neuropsychology, 20,* 193-205.

Wolfe, M. B. W. (2005). Memory for narrative and expository text: Independent influences of semantic associations and text organization. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 31,* 359-364.

Zwaan, R. A., Langston, M. C., & Graesser, A. C. (1995). The construction of situation models in narrative comprehension. *Psychological Science, 6,* 292-297.

VITA

Personal Background	Katie Lynn Glonek
	Born November 1, 1983, Toledo, Ohio
	Daughter of James Glonek and Barbara Przybylski
Education	Diploma, Saint Michael's Academy, Austin, Texas, 2002
	Bachelor of Science, Texas Christian University, Fort Worth, Texas, 2005
Experience	Marketing Intern, Pulte Homes, L.L.P., Coppell, Texas, 2004
	Corporate Culture and Communications Intern, Drive Financial Services, L.P., Dallas, Texas, 2006
	Marketing/Client Services Intern, GoalQuest, Inc., New York, New York, 2007
	Research and Teaching Assistant, Texas Christian University, Fort Worth, Texas, 2005-2007

Thesis typed by Katie Lynn Glonek

ABSTRACT

While most of the information presented in the classroom or other learning environments is semantically organized (expository presentation), traditional approaches to retention, such as storytelling, are organized episodically and presented as narratives. The current study examines the impact that certain instructional techniques have on audience retention. Variables investigated include the use of narrative versus expository presentation styles and normal versus compressed presentation rates. Results indicate a relationship between presentation style and retention such that audience members retain more information when it is presented in a narrative style and when it is presented at a normal presentation rate. Practical and theoretical implications of these findings are discussed as well as suggestions for future research.