

THE FLORIDA STATE UNIVERSITY
COLLEGE OF COMMUNICATION

EFFECTS OF SENSORY CUES ON QUANTITY AND QUALITY OF UTTERANCES
IN CONVERSATION GROUPS WITH INDIVIDUALS WITH DEMENTIA

By

KIMBERLY ANN JOHNSON

A Dissertation submitted to the
Department of Communication Disorders
in partial fulfillment of the
requirements for the degree of
Doctorate of Philosophy

Degree Awarded:
Spring Semester, 2003

The members of the Committee approve the dissertation of Kimberly Johnson's defended on April 2, 2003.

Michelle Bourgeois
Professor Directing Dissertation

Linda Vinton
Outside Committee Member

Howard Goldstein
Committee Member

Joanne Lasker
Committee Member

Approved:

Richard Morris, Chair, Department of Communication Disorders

John Mayo, Dean, College of Communication

The Office of Graduate Studies has verified and approved the above named committee members.

ACKNOWLEDGEMENTS

There are many people that have played a part, small or big, in helping me to attain this degree. I would especially like to thank the following:

My Lord and Savior who has guided me “into my desired haven.” Psalm 107:23-32

Todd, my encourager, supporter, and love of my life—a cord of three strands is not easily broken (Ecclesiastes 4: 12)

My beautiful daughters, Audrey and Savanna, who daily brighten my life with smiles and laughter and remind me that “God is so good.”

Ann, Jim, Jane, Larry—the best parents ever.

Dr. Michelle Bourgeois, my mentor and chair of my committee, who guided me, supported me, and believed in me.

Dr. Howard Goldstein who was my advocate and cheerleader.

My other dissertation committee members: Dr. Linda Vinton, and Dr. Joanne Lasker.

Their support, knowledge, and encouragement were key to my success.

My preliminary examination committee, who got this all started off! Dr. Beverly Jacobs, Dr. Amy Wetherby, Dr. Richard Morris, Carole Jo Hardiman, Dr. Sandra Faria, Dr. Linda Vinton, and Dr. Michelle Bourgeois.

My Bible Study Group: Robin O’Donnell, Kim Cowart, Christy Treadwell, Brenda Althouse. For their love: “Love never gives up, never loses faith, is always hopeful, and endures through every circumstance.” 1 Corinthians 13:7

Fellow doctoral students especially Julie Cleary, Gina Youmans, Shubha Kashinath, and Karla Qualls, who inspired me, encouraged me, challenged me, and helped me throughout the process.

Celebration Baptist Church especially Son Seekers Sunday School Department.

The staff and clients at Tallahassee Memorial Adult Day Services, especially Bernice Odariko, who inspired me, encouraged me, taught me, and assisted me.

Judy Greenwald, a great source of encouragement and support.

Deidre Hemphill, my faithful prayer partner.

The students in Communication Disorders who helped with data collection and reliability coding especially Nichole Shepard.

Katinka Dijkstra for her assistance with social validation and for her encouraging words.

My family, especially my four grandmothers, my grandfather, Jason and Edie, and friends, especially Cindy Winters, who have prayed for me and encouraged me throughout this process.

There were many others who provided a timely message, word of encouragement, or instrumental assistance, including Dr. Jim Pitts, Margaret Munroe, Tracey Love, and Dr. Ron Rickner.

TABLE OF CONTENTS

List of Tables	vii
List of Figures	viii
Abstract	ix
INTRODUCTION.....	1
Statement of the Problem.....	1
LITERATURE REVIEW	4
Language Changes.....	4
Receptive Language	
Auditory Comprehension	
Reading Comprehension	
Expressive Language	
Oral Reading	
Syntax	
Semantics	
Pragmatics	
Theoretical Underpinnings of Memory	10
Memory Loss in Dementia.....	12
Cueing in Alzheimer’s Disease	15
Olfactory Cues	
Tactile Cues	
Auditory Cues	
Visual	
Combining Cues	
Cues in Treatment.....	20
Research Needs	23
RESEARCH PROPOSAL	28
METHOD	32
Participants.....	32
Day-care Clients	
Facility Staff	

Setting and Apparatus	35
Physical Setting	
Screening and Intake Sessions	
Experimental Sessions	
Stimuli.....	37
Conversation Topics	
Discussion Questions	
Dependent Variables.....	39
Transcript of Sessions	
Participant Utterances	
Facilitator Utterances	
Coder Training	
Design	44
Procedures	45
Baseline	
Pre-study procedures	
Facilitator Training	
Treatment Procedures	
Listening Treatment	
Reading Treatment	
Modified Treatment Procedures	
Social Validity	
RESULTS	54
DISCUSSION	75
APPENDICES	87
APPENDIX A: Sample Story Stimuli	87
APPENDIX B: Sample Story and Modifications.....	90
APPENDIX C: Sample Question Stimuli.....	91
APPENDIX D: Data Coding Sheets.....	92
APPENDIX E: Data Summary Forms.....	93
APPENDIX F: Implementation Schedule.....	95
APPENDIX G: Training Manual	96
APPENDIX H: Social Validation Form	112
APPENDIX I: Institutional Review Board Forms	114
REFERENCES.....	120
BIOGRAPHY	132

LIST OF TABLES

1. Participant Characteristics	34
2. Participant Evaluation Results	34
3. Length and Reading Level of Conversational Stories and Associated Object	38
4. Participant Utterance Types and Examples	41
5. Facilitator Utterances Types and Examples.....	43
6. Treatment Conditions and Associated Stimuli.....	48
7. Results of Social Validation.....	73

LISTS OF FIGURES

1. Total Number of Utterances for All Participants per Session.....	56
2. Total Number of Utterances for Each Participant per Session	57
3. Total Number of Facilitative Utterances for All Participants per Session	61
4. Total Number of Facilitative Utterances for Each Participant per Session	63
5. Total Number of Facilitator Utterances per Session	66
6. Total Number of Facilitator Questions per Session	66
7. Total Number of Turns by Participants per Session.....	69
8. Total Number of Utterances by Topic	71

ABSTRACT

Individuals with dementia have language and memory deficits that interfere with their functional abilities, such as conversation skills. A variety of treatments have been developed to address these deficits during group conversation activities. Interventions that provide various sensory cues (e.g., visual, verbal, tactile) have been found to facilitate conversation groups. The current research attempted to evaluate the effects of auditory plus tactile and auditory plus written conditions on the conversational behavior of five persons with dementia in a group activity using an alternating treatment design. In a listening treatment condition (auditory plus tactile) participants listened to a story read by a staff facilitator while holding an object that was related to the story and answered questions about the story. In the reading treatment condition (auditory plus written), participants took turns reading aloud the story text and then took turns reading aloud questions about the story to elicit conversation.

The quantity and quality of utterances for the participants and the facilitator were scored from transcripts of the audiotaped sessions. The results revealed no treatment effects for the quantity and quality of utterances by the participants for either condition. The treatments were subsequently modified to reduce the length and complexity of the story stimuli. With the treatment modification, only one participant demonstrated a clear increase in quantity and quality of utterances after treatment was implemented.

Naïve judges' ratings of seven conversational quality indicators corroborated the lack of treatment effects. Baseline sessions were judged to be more comfortable, more clear, having more novel information, more on-topic utterances, more equality of turns, more participant-led discussion, and more participant engagement than either treatment condition.

Factors related to the participant characteristics, the treatment protocol, and the physical environment may have contributed to the lack of treatment effects in this study as compared to other more successful conversational interventions.