

Misericordia University
Student Research Grants Program
2017-2018

Student Researcher: J. Smith

Department/College: Speech-Language Pathology/College of Health Science and Education

Telephone: (xxx) xxx-xxxx

Address: (if on campus put your box #) 301 Lake St., Box 796 Dallas, PA 18612

Email Address: smithj@misericordia.edu

Title of the Research Study: Discourse Analysis in Adults with Cluttering: Extension of Findings

Student Co-Researcher(s): B. Jones

Department(s)/College(s): Speech-Language Pathology/College of Health Science and Education

Telephone: (xxx) xxx-xxxx

Email Address(es): jonesb@misericordia.edu

Signatures of Faculty Advisor (Also, attach support letter)

Date:

Kathleen Scaler Scott, PhD / Kathleen Scaler Scott
2/25/19

IRB approval obtained? Circle one YES NO Submitted NA (justify why approval not necessary):

If IRB approval obtained, please attach approval letter. Attached
Year and Date of Graduation 2021, May

Please add a 300 word (maximum) description of your proposed research project.
(single spaced to fit on this cover sheet.)

Five-minute monologues on a topic of interest of six adults with cluttering and six controls were orthographically transcribed. Following the methods of Dijkstra, Bourgeois, Allen, & Burgio (2004), transcripts were divided into conversational units and coded for instances of discourse building and discourse impairing features. In an extension of previous findings, results of these analyses were compared with standardized language measures. Clinical and research implications of these findings will be discussed.

2. RESEARCH PLAN

b) Qualitative Research Study:

Area of Interest: Speech-Language Pathology; Cluttering

Need for the Study (including a cursory literature review):

The current working definition of cluttering, known as the lowest common denominator (LCD) definition of cluttering (St. Louis & Schulte, 2011), refers to cluttering as a rate-based fluency disorder. The definition focuses upon the key agreed upon areas of difficulty in cluttering. Despite the fact that not all clutterers are found to have difficulties with language, there are investigators who contend that language symptoms commonly exist as a part of cluttering. Both Ward (2006) and Van Zaalen, Wijnen, and Dejockere (2009) have discussed cluttering taking on two different subtypes. Ward (2006) discussed that cluttering can be broken into linguistic and motoric cluttering. Under Ward's categorization system, those with linguistic cluttering would have a more language based disorder. Ward proposes that some with cluttering may experience a mixture of linguistic and motoric components. Van Zaalen, Wijnen and Dejockere (2009) argued that cluttering is a language based disorder with two subtypes: phonological and syntactic cluttering.

Although it has been argued that language disorders may be inherent to cluttering, there have been no studies to definitively demonstrate a language disorder in cluttering. Before the LCD definition of cluttering was put forward, many references to diagnosing cluttering referred to accompanying difficulties with language. Difficulties with verbal organization have recently been identified in cluttering, in various speaking contexts (Bretherton-Furness & Ward, 2012) and during speech tasks under functional Magnetic Resonance Imaging (fMRI) (Ward, Connally,

Pliatsikas, & Bretherton-Furness, 2015). However, differences in the language portions of the brain have not yet been identified (Ward et al., 2015).

It is currently debated whether the differences are based in the organization of language (executive functioning skill) rather than in a language disorder itself. As with language, executive function skills have been explored in limited scope in the cluttering literature. Self-regulation, an area that falls under executive functioning, is an area that is frequently addressed as part of cluttering treatment. For example, treatments to address cluttering symptoms have often focused upon pacing and slowing rate, self-monitoring speech based upon the linguistic context and other factors, and increasing self-awareness (Bennett Lanouette, 2011; Daly & Burnett, 1996; Myers, 2011; Myers & Bradley, 1992). Other pilot studies have shown difficulties with working memory (Scaler Scott, Lozier, Kidron, 2012) and response inhibition (Scaler Scott & Barone, 2010; Scaler Scott, Bossler, & Veneziale, 2015; Scaler Scott, Bossler, Veneziale, Nelson, & Tokach, 2015; Scaler Scott, Bossler, Veneziale, & Croasdale, 2016) in children and adults who clutter, respectively. From treatment recommended and findings in research data, skills related to executive functioning are suggested as a contributing factor to cluttering.

Phonological encoding is an executive function process which is currently being explored related to fluency disorders. Phonological encoding is the process by which a phonetic plan is built for a word a speaker is trying to say (Levelt, p. 12). During this process, the following aspects of the phonetic plan of the word are considered: the word's phonology (e.g., number of syllables and sounds it contains), morphology (roots, prefixes, suffixes), and stress pattern (variable based upon where the word is placed in the sentence). As we formulate ideas, they move from the formulation stage to the phonological encoding stage to the stage where we articulate the message. An initial study of phonological encoding in adults found impairments in phonological encoding in both

adults who stutter and adults who clutter as compared to controls (Bretherton-Furness, in preparation).

At least three areas of executive function have been shown to differ from that of those with fluent speech: response inhibition, working memory, and phonological encoding. Verbal organization has been studied in small scale in those with cluttering. Maze behaviors, which occur when a speaker makes many revisions and/or follows numerous tangents, as if struggling to get out of a maze to express their point, have been frequently associated with cluttering. Bretherton-Furness and Ward (2012) found more maze behaviors in adults with cluttering as compared to controls when they had to explain everyday tasks.

Research Design

Discourse analysis is a qualitative research methodology that allows for fine analysis of connected speech. This research methodology allows for systematic coding of connected speech to identify patterns related to organization of language. Since language deficits do not always reveal themselves through standardized test scores, and more areas of weakness seem to be noted anecdotally in the connected speech of those with cluttering, discourse analysis represents a systematic means for comparing organization of discourse in a sample of people with cluttering and controls. We currently have IRB approval from Misericordia to conduct this study.

Plans for Data Analysis

Five-minute monologues on a topic of interest of six adults with cluttering and six controls were orthographically transcribed. Following the methods of Dijkstra, Bourgeois, Allen, & Burgio (2004), transcripts were divided into conversational units and coded for instances of discourse building and discourse impairing features. Results of these analyses were compared

with standardized language measures. Qualitative analysis of time for those who clutter to complete tasks as compared to controls was analyzed.

3. RESEARCH CONTRIBUTION

The results of this study will potentially be the first step toward confirming whether communication symptoms presented in cluttering are characteristic of language based or executive functioning deficits. Results of this study can educate Speech-Language Pathologists on cluttering and its characteristics in order to better educate, understand and treat their clients who clutter. There are many follow-up studies that can be done in relation to this proposed study once relationships between the variables are determined, including treatment studies. These data will also afford the exploration of the impact of executive functioning upon a wider range of communication disorders. Continued research examining the relationship between executive functioning deficits and their impact upon communication in a variety of disorders can be explored, including children with expressive language impairments. Results of this study will be presented at the annual 2019 Pennsylvania Speech Language and Hearing Association (PSHA) Convention in Lancaster, Pennsylvania.

4. CONTRIBUTION TO STUDENT LEARNING

Conducting research with professionals and fellow students at Misericordia University has enhanced my academic experience greatly. The skills I have learned in research are skills I never would have been able to master by simply attending classes and taking exams. I have learned to problem solve, work with a team on challenging tasks, collect and analyze data, and think critically. I have been given the opportunity to present to individuals who are greatly admired in the field of communication sciences and disorders at conferences. I will use what I

am learning as a research student to expand my academic and clinical performance. The research I have conducted has enhanced my own professional knowledge, while making a contribution to the constantly changing field of Speech-Language Pathology. I look forward to utilizing my enhanced knowledge and sharing findings of this study with professionals and students at the conference.

5. TIMELINE

January- April 2018: collection of data

Dec 2018-Feb 2019: analysis of data

March 2019: Preparation of poster

April 2019: Poster presentation at PSHA convention

6. BUDGET JUSTIFICATION

These expenses are related to my attendance at the annual PSHA convention set to take place in Lancaster, Pennsylvania. I plan to arrive on Wednesday, April 10, 2018 and leave Saturday, April 13, 2018.

- Roundtrip mileage to and from Misericordia University and The Lancaster County Convention Center, not including tolls, is \$132.00 ($\$0.55 \times 120 \text{ miles} \times 2 \text{ trips}$).
- One hotel room for 3 nights, including applicable taxes and fees, is approximately \$600.00 ($\sim \$200.00 \times \text{three nights}$).
- Parking and breakfast at the hotel is free.
- The NSSLHA/ASHA graduate student member registration fee for the PSHA convention is \$55.00.

- Per diem food costs for the entirety of the trip will be \$123.00 ($\12×4 lunches = \$48.00; $\$25 \times 3$ dinners = \$75.00)
- **The total cost of the trip will equal to approximately \$910.00**

7. BUDGET

See attached budget sheet.

8. SUPPORT

Please see attached letter from my faculty advisor, Dr. Kathleen Scaler Scott

Misericordia University
Student Research Grants Program
Budget Form

Name(s): J. Smith

Department: Speech-Language Pathology

ITEM	ITEM CALCULATION	GRANT AMOUNT	OTHER SOURCE
Travel to Present Research	To and from Misericordia University and The Lancaster County Convention Center \$0.55 x 120 miles x 2 trips	\$132.00	
	1 hotel room for 3 nights \$200.00 x three nights	\$600.00	
Other	Meals (\$12 x 4 lunches = \$48.00; \$25 x 3 dinners = \$75.00)	\$123.00	
	\$55.00 Convention registration fee	\$55.00	
TOTAL		\$910.00	

References

- Bennett Lanouette, E. (2011). Intervention strategies for cluttering disorders. In D.Ward & K. Scaler Scott (Eds.). *Cluttering: Research, Intervention and Education*. East Sussex: Psychology Press. 175-197.
- Bretherton-Furness, J., & Ward, D. (2012). Lexical access, story re-telling, and sequencing skills in adults who clutter and those who do not. *Journal of Fluency Disorders*, 37, 214-224.
- Daly, D. A., & Burnett, M. (1996). Cluttering: Assessment, treatment planning and case study illustration. *Journal of Fluency Disorders*, 21(3-4), 239-248.
- Dijkstra, K., Bourgeois, M.S., Allen, R.S., & Burgio, L.D. (2004). Conversational coherence: Discourse analysis of older adults with and without dementia. *Journal of Neurolinguistics*, 17, 263-283.
- Levelt, W. J. M. (1989). *Speaking: From intention to articulation*. Cambridge, MA: The MIT Press
- Myers, F. L. (2011). Treatment of cluttering: a cognitive-behavioral approach centered on rate control. In F. L. Myers & K. O. St. Louis (Eds.). *Cluttering: A clinical perspective* (pp. 85-105). Kibworth, UK: Far Communications. (Reissued in 1996 by Singular, San Diego, CA)
- Myers, F. L., & Bradley, C. L. (1992). Clinical management of cluttering from a synergistic framework. In D.Ward & K. Scaler Scott (Eds.). *Cluttering: Research, Intervention and Education*. East Sussex: Psychology Press, 152-174.
- St. Louis, K. O., & Schulte, K. (2011). Defining Cluttering: The lowest common denominator. In D.Ward & K. Scaler Scott (Eds.). *Cluttering: Research, Intervention and Education*. East Sussex: Psychology Press.
- Scaler Scott, K. (2011). Cluttering and autism spectrum disorders. In D. Ward & K. Scaler Scott (Eds.). *Cluttering: Research, Intervention and Education*. East Sussex: Psychology Press.
- Scaler Scott, K., & Barone, N. (2010, Nov.). Disfluency, Disinhibition, and Cluttering: Food for Thought. A seminar presentation at the annual convention of the American Speech-Language Hearing Association, Philadelphia, PA.
- Scaler Scott, K., Bossler, R., & Veneziale, A. (2015, Nov.). Response inhibition in cluttering. A poster presented at the annual convention of the American Speech Language Hearing Association, Denver, CO.
- Scaler Scott, K., Kidron, M., & Lozier, J. (2012, Nov.). Comparison of cluttering symptoms in children in three speaking contexts. A poster presented at the annual convention of the American Speech-Language Hearing Association, Atlanta, GA.

- Scaler Scott, K., Bossler, R., Veneziale, A., Croasdale, S., & Irr, A. (2016, April). Response inhibition in cluttering: Next steps in analysis. A poster presented at the annual convention of the Pennsylvania Speech-Language Hearing Association, Pittsburgh, PA.
- Scaler Scott, K., Bossler, R., Veneziale, A., Nelson, S., & Tokach, S.. (2015, March). Response inhibition and speech fluency in adults with cluttering vs. controls. A poster presented at the annual convention of the Pennsylvania Speech-Language Hearing Association, Harrisburg, PA.
- Van Zaalen, Y. F., Wijnen, F., & De Jonckere, P. H. (2009). Differential diagnostic characteristics between cluttering and stuttering – part one. *Journal of Fluency Disorders*, 34, 137–146.
- Ward, D. (2006). *Stuttering and Cluttering: Frameworks for understanding and treatment*. New York: Psychology Press.
- Ward, D., Connally, E. L., Pliatsikas, C., Bretherton-Furness, J., & Watkins, K. E. (2015). The neurological underpinnings of cluttering: Some initial findings. *Journal of Fluency Disorders*, 43, 1–16.



MISERICORDIA UNIVERSITY

Student Research Grant Committee
Misericordia University

February 22, 2019

Dear Student Research Grant Committee:

I am writing this letter to strongly support Jane Smith's application for a student research grant award. Jane worked under my supervision on this research project as my research assistant since August 2017. I have also known Jane since January 2017, when she began working on my research team. Based upon past performance and accomplishments Jane displays a superior level of academic promise. Jane is a motivated, dedicated and hard-working student. She exceeds expectations in terms of scholarship, service, and leadership. She has an overall GPA 4.0. Jane is an active participant in the classroom. She continues to develop professionally by being involved in research and applying what she learns to clinic.

As part of this project, some of Jane's responsibilities for research have included collecting data, analyzing results, and presenting preliminary results of the study at our national convention. She is extremely organized and responsible, taking initiative to complete tasks efficiently and effectively. When given a task, Jane analyzes the situation, makes a plan, and follows through until completion. Jane has become adept at using all analysis equipment in the language lab. Jane is first author on this proposal submitted for a poster presentation at the Pennsylvania Speech-Language Hearing Association to be held in Lancaster, PA in April 2019.

The PSHA annual convention is designed to provide a forum for researchers in the area of communication disorders to come together to share and collaborate with one another. Jane has the unique opportunity to present in this forum. Jane has presented aspects of this study at our national convention. Presenting the final findings at the PSHA convention will be a culminating experience for her---bringing what she has learned in the classroom, clinic, and research together in one place.

Jane is hard-working and is constantly seeking ways to improve her ability as a researcher, student, and clinician. Jane's eagerness for life-long learning will only enhance her clinical abilities as she continues to grow professionally. From my knowledge of her work ethic in the research she has conducted, I believe Jane is unquestionably a strong candidate for a student research grant award. I highly recommend her for this award. Her presentation skills and knowledge of the material will highlight the type of students we have at our University. I recommend you give her application the highest consideration.

Please feel free to contact me with any questions. Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Kathleen Scaler Scott, Ph.D.".

Kathleen Scaler Scott, Ph.D.
Associate Professor
Speech-Language Pathology



MISERICORDIA
UNIVERSITY

February 1, 2019

Kathleen Scaler Scott, Ph.D.
Speech-Language Pathology Department
Misericordia University
Dallas, PA 18612

Dear Kathleen:

The IRB reviewed your annual update for your study, *Response Inhibition in People with Cluttering*, IRB number 02-15-T2. Your request for a continuation until February 1, 2020 has been approved by the IRB.

Attached is the consent form submitted with an updated period of eligibility. This is the only consent form to be used and any modifications must be approved by the IRB. You will be reminded one month prior from the expiration date of your research protocol to complete an End-of-Project Report.

Please remember that you have the responsibility to notify the IRB of any changes in the conduct of this study.

Sincerely,

Jessica Sofranko Kisenwether, Ph.D., CCC-SLP, CIP
Administrator and Chairperson, IRB

Permission Form for Child Assent to Participate in Research

Study Title: Response inhibition in people with cluttering

Researcher: Kathleen Scaler Scott, Ph.D., CCC-SLP, BCS-FD

You are invited to participate in my work. You have been invited to participate because you are at least 12 years old. In the next part of this, I will explain to you what I want you to do, if you want to be part of my work. If you have any questions, please do not hesitate to ask them.

The purpose of my work is to see how the response patterns of different kids and adults 12 and older are the same and different. There are two parts to the study. After you finish Part One, you may or may not qualify to complete Part Two. For Part One, you will be asked to: 1) have about 5 minutes of conversation with the researcher; 2) talk about something you are interested in for about 5 minutes; 3) name some pictures; 4) point to some pictures and 5) read two short stories aloud. If I decide I need you to come back for Part Two, you will be asked to make up some sentences when presented with slides containing pictures and words on the computer. The researchers will record you during these tasks. Part One will take about 60 to 90 minutes, and Part Two about an hour. I will videotape and audiotape you during all parts of the study, and all information in the videos will be kept strictly confidential.

After you have finished Part One of the study, I will watch the videotape, write down what you said, look for any patterns in your speech, score all of testing you have taken, and decide whether you move on to Part Two. If you do not move on to Part Two, that is not because you failed or anything is wrong with you, but because the researchers did not need any more information from you. If you move on to Part Two, after you complete the sentence making task, either I or my research assistants will analyze your responses, look for any speech patterns, and compare these speech patterns to those of other participants in the study.

The people who work with me will receive a \$10.00 gift card for each visit they complete. Researchers and speech teachers may learn more so they can help others who need to improve their speech. There is little risk to participating in the study, only that of having to complete some listening and speaking activities. It will take some time to do the activities and this may seem long to you.

The findings from the study will be written up for a journal by the researchers but your name will never appear in the reports. All data and results will be locked in a filing cabinet in the researcher's office until the results have been entered into the computer. When they are entered into the computer, the files will be password protected so that no

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one except the researchers can open and view them. Information will be kept confidential at all times (by using passwords and locks to prevent those not involved in the study from being able to see any of the data), no matter if it is in writing, in audio or video form, or in the computer. I will also be talking to your mom and dad about this and letting them know that I will not share how you did with anyone else.

If you have any questions, I'll be here everyday while I'm watching how you do. I will be giving your mom and dad my phone number so that if you want to call me and ask me anything you can.

If you decide not to work with me on this, that is fine. Also, if you decide you want to work with me on this and then change your mind, that is also fine. No one will say anything to you, and nothing bad will happen to you if you choose not to participate.

If you have any questions about this study or need to talk about anything about the study, you or your parent(s) may call Dr. Scaler Scott at 570-674-1437.

PERMISSION:

I understand that I have been selected to participate in a research study. I will participate in a five-minute conversation with the researcher, talk about something I'm interested in for about 5 minutes, complete some activities pointing to and naming pictures, and read two short stories aloud. If I qualify, I will also participate in making up sentences about pictures and words on computer slides. I will be video and audiotaped during all parts of the study, and all information will be kept confidential. I also understand that it is my choice to participate or not, and that I may change my mind about participating at any time during the study. I agree to allow the researchers to invite me to participate in the study.

I have read and understand this Letter of Assent and agree to participate in the study described. I have been given a copy of this letter to keep.

Name: _____

Signature: _____

Date: _____

Researcher signature: _____

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MICHIGAN DEPT. OF HEALTH

Permission Form for Informed Consent to Participate in Research

Study Title: Response inhibition in people with cluttering

Researcher: Kathleen Scaler Scott, Ph.D., CCC-SLP, BCS-FD

Your child is being invited to participate in a research study about response inhibition and speech patterns in children with cluttering and children with no diagnosis. Your child was selected because s/he is either a child with a diagnosis of cluttering, suspected cluttering, or no diagnosis. The following information is provided to help you make a decision about whether or not to consent to have your child participate. If you have any questions, please do not hesitate to ask them.

The purpose of this study is to compare the response patterns of children with cluttering to children with no diagnosis. There are two parts to the study. After completion of Part One, your child may or may not qualify to complete Part Two. For Part One, your child will be asked to: 1) have about 5 minutes of conversation with the researcher; 2) talk about something they are interested in for about 5 minutes; 3) name some pictures; 4) point to some pictures and 5) read two short stories aloud. If they qualify to come back for Part Two, they will be asked to make up some sentences when presented with pictures and words on computer slides. The researchers will videotape and audiotape your child during all tasks. All recordings will be kept strictly confidential. Part One will take about 60 to 90 minutes, and Part Two about an hour.

After your child has finished Part One of the study, I will watch the videotape, write down what s/he said, look for any patterns in their speech, score all of the picture naming and identification testing, and decide whether they move on to Part Two. If they do not move on to Part Two, that is not because they failed or anything is wrong with them, but because the researchers did not need any more information from them. If they move on to Part Two, after completing the sentence making task, either I or my research assistants will analyze their responses, look for any speech patterns, and compare these speech patterns to those of other participants in the study.

In return for participating in this study, your child will receive a \$10.00 gift card for each visit s/he completes. There is no other immediate benefit to you or your child for participating in this study, but researchers and therapists may learn more about response patterns in cluttering, and these may help increase information for the creation of new treatments for the communication disorder cluttering. There is little risk to participating in the study, only that of having to complete some listening and speaking activities. It will take some time to do the activities and this may seem long to your child.

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The findings from the study will be written up for a journal by the researchers but your child's name will never appear in the reports. All data and results will be locked in a filing cabinet in the researcher's office until the results have been entered into the computer. When they are entered into the computer, the files will be password protected so that no one except the researchers can open and view them. Your child will also be assigned a 4-digit random number so that their video and audio recordings cannot be linked with any identifying information. Your child's birthdate will be taken to calculate testing results, but will not be linked to any other identifying information about your child. Information will not be shared with anyone except the researchers and only for the purpose of this study. Information will be kept confidential at all times (by using passwords and locks to prevent those not involved in the study from being able to see any of the data), no matter if it is in writing, in audio or video form, or in the computer.

Please know that you have the right to choose not to have your child participate in this study. Also, it is important to share that if you or your child decide that you/they do not want to continue at any time during the study s/he can stop without penalty or obligation.

If you have any questions about this study or need to report any unexpected events, you may call Dr. Scaler Scott at 570-674-1437.

PERMISSION:

I understand that my child has been selected to participate in a research study. My child will participate in a five-minute conversation with the researcher, talk about a topic of interest for about 5 minutes, complete some picture naming and identifying tasks, and read two short passages aloud. If s/he qualifies, my child will also participate in creating some sentences from words and pictures presented on computer slides. My child will be video and audiotaped during the study, and all information will be kept confidential. I also understand that my child is participating voluntarily and I/my child may refuse to participate and/or may withdraw at any time during the study. I agree to allow the researchers to invite my child to participate in the study.

I have read and understand this Letter of Informed Consent and agree to allow my child to participate in the study described. I have been given a copy of this letter to keep.

Name: _____

Signature: _____

Date: _____

Researcher signature: _____

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MISERICORDIA
UNIVERSITY

Adult Permission Form for Informed Consent to Participate in Research

Study Title: Response inhibition in cluttering

Researcher: Kathleen Scaler Scott, Ph.D., CCC-SLP, BCS-F

You are being invited to participate in a research study the response patterns of people with cluttering. You were selected because you are either an adult with cluttering or suspected cluttering or with no speech or communication problems. The following information is provided to help you make an informed decision whether or not to participate. If you have any questions, please do not hesitate to ask them.

The purpose of this study is to find out how the response patterns of those with cluttering compare to those without cluttering. There are two parts to the study. After you finish Part One, you may or may not qualify to complete Part Two. For Part One, you will be asked to: 1) have about 5 minutes of conversation with the researcher; 2) read two short passages aloud; 3) talk about something you are interested in for about 5 minutes; and 4) completion some picture identification and naming tasks. This part will take about 60 to 90 minutes. For Part Two, you will be asked to: create some sentences about pictures and words you see on computer slides. This part will take about 60 minutes. The researchers will record you (audio and videotape) during all parts of the study.

After you have participated in the first part of the study, I will watch the videotape of you completing the tasks, write down what you have said, score any testing, and compare your speech to the diagnostic criteria of cluttering to confirm your diagnosis of cluttering. If you move on to Part Two of the study, the investigators will analyze your responses to the sentence making tasks for any patterns.

There is no immediate benefit to you for participating in this study, but researchers and therapists may learn more about response patterns in cluttering, and this information may help increase information for further study of the communication disorder cluttering. You will receive a \$10.00 gift card for each session you participate in. There is little risk, only that of having to complete some listening and speaking activities. It will take some time to do the activities and this may seem long to you.

The findings from the study will be written up for a journal by the researchers but your name will never appear in the reports. All data and results will be locked in a filing cabinet in the researcher's office until the results have been entered into the computer. When they are entered into the computer, the files will be password protected so that no one except the researchers can open and view them. You will also be assigned a 4-digit random number so that your video and audio recordings cannot be linked with any identifying information. Your birthdate will be needed to complete picture identification and naming test forms, but no other identifying

information will be included on these test forms. No information will be shared with anyone except the researchers and only for the purpose of this study. Information will be kept confidential at all times (by using passwords and locks to prevent those not involved in the study from being able to see any of the data), no matter if it is in writing, in audio or video form, or in the computer.

Please know that you have the right to choose not to participate in this study. Also, it is important to share that if you decide that you don't want to continue at any time during the study you can stop without penalty or obligation.

If you have any questions about this study or need to report any unexpected events, you may call Dr. Scaler Scott at 570-674-1437.

PERMISSION:

I understand that I have been selected to participate in a research study. I will participate in having conversation with the examiner(s), talking about a topic of interest for about 5 minutes, completing some picture naming and identification tasks, and reading two passages aloud. If I qualify for Part Two of the study, I will participate in a sentence making task when presented with some pictures and words on computer slides. I will be video and audiotaped throughout the course of the study, and all information will be kept confidential. I also understand that I am participating voluntarily and may refuse to participate and/or may withdraw at any time during the study. I agree to allow the researchers to invite me to participate in the study.

I have read and understand this Letter of Informed Consent and agree to allow myself to participate in the study described. I have been given a copy of this letter to keep.

Name: _____

Signature: _____

Date: _____

Researcher signature: _____

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