

Appendix B

Sample Research Report

This manuscript is a proposal for a research study and contains sample IRB forms. It is a sample report. It uses APA style and first-person voice. Color-coded notes provided throughout indicate differences that would be incorporated if this were another type of qualitative study, a quantitative one, or a mixed-methods one.

Each style guide — APA, MLA, ASA, and Chicago — provides its own specific guidelines about sections and headings a researcher must include in a report. Dissertations, theses, grant proposals, and other report types all have their own required elements.

These notes are qualitative.

These notes are quantitative.

These notes are mixed methods.

Meaningful Interactions: Reminiscence with Mild Cognitively Impaired and Non-Cognitively Impaired Older Adults

Rebecca L. Artzer

McNair Scholars Program

University of Northern Colorado

Mentor: Dr. Joyce Weil, School of Human Sciences

The **title page** offers a title that reflects the main theme of the report in a jargon-free way. Authorship and affiliations are also noted.

An Acknowledgement would go here, if the study was sponsored by a funder or presented at a conference.

If this were a full report, an **Abstract** would go here. Abstracts range from 100–250 words and tell the reader the purpose (goal/objectives/hypotheses), design and methods, and findings (or results) and larger application/implications of the study.

Keywords can also be present. They are the terms that express the overall ideas of the study.

Meaningful Interactions: Reminiscence with Mild Cognitively Impaired and Non-cognitively Impaired Older Adults

Definitions

The current research will explore the types of reminiscence and themes of meaningful events that develop in interactions with older adults. Reminiscence is defined as “personal memories in which the person recalling them was either a participant or an observer” (Wong & Watt, 1991, p. 272). Wong and Watt (1991) identified the different types of reminiscence: integrative, instrumental, transmissive, narrative, escapist, and obsessive. In integrative reminiscence, an individual incorporates life experiences as valuable despite trials or challenges. Instrumental reminiscence is goal directed and involves learning from life events to solve concerns. With transmissive reminiscence, the person passes down his or her personal history or advice to the listener. Narrative reminiscence does not have a clear purpose but involves cultural references to older values and wisdom. Escapist (aka defensive) reminiscence involves exalting the past and putting down the present; exaggerations are common. In obsessive reminiscence, the person feels regret from certain life experiences and often has not resolved these feelings. Wong and Watt’s (1991) definitions became useful to later researchers who were also exploring reminiscence, and they will be used in the current study.

Qualitative studies often begin with a page of definitions for terms.

Meaningfulness is distinctive from meaning. Life can have meaning without having value. In contrast, meaningfulness is when an event, goal, decision, or, in this case, life in general has “significant value” (Kirkland, 2015). Meaningfulness is present in a life event or experience that is significant enough to an individual that it impacts how he or she perceives values and the world; the memory of this event often stays with the person for the rest of his or her life (Allen, 2009). An example of an event that is meaningful could be as simple as traditions with family members or as complicated as a major event in history.

One group of adults in this study will have mild cognitive impairment (MCI), and the other group will not have cognitive impairment. Cognitive impairment is defined in the literature as a level of diminishing mental abilities that has not reached the point of Alzheimer’s disease but that is significant enough to be noticed in daily life and occasionally by other people (Barnabe, Whitehead, Pilon, Arsenault-Lapierre & Chertkow, 2012). Differences or similarities between these two groups in the ways they use reminiscence will be studied.

With medical capabilities increasing, more people are living longer and thus will have more opportunities to reminisce than people in the past who did not live as long. Decreased depressive symptoms, loneliness, and time to recall memories as well as an increase in life satisfaction and positive interactions are just some benefits of reminiscence (Allen, 2009; Allen et al., 2014; Allen, Hilgeman, Ege, Shuster, John & Burgio, 2008; Chiang et al., 2010). With older populations, there is also a higher number of people who have cognitive impairments. Researchers

suggest that these impairments can likely be alleviated to some extent through the use of reminiscence (Barnabe, Whitehead, Pilon, Arsenault-Lapierre & Chertkow, 2012; Bohlmeijer & Westerhof, 2014; Cohen-Mansfield, Papura-Gill & Golander, 2006). It is noteworthy to point out that, in Allen (2009), reminiscence did not seem to decrease depressive and lonely moods. This is in contrast to the other research that found an association between the integration of focused reminiscence and decreased negative emotions (Allen, 2009; Allen et al., 2014; Bohlmeijer & Westerhof, 2014; Chiang et al., 2010). The dissimilar association that Allen found should serve as a motivator for researchers to carefully examine results and not exclude findings that are contrary to societal expectations. Exploring the types of reminiscence older adults engage in as well as observing differences or similarities in reminiscence for those with contrasting cognitive abilities can increase the current understanding of reminiscence.

Review of the Literature

Purposes and Benefits of Reminiscence for Non-cognitively Impaired Older Adults

Researchers have supported the usefulness of reminiscence in older adults. Bohlmeijer and Westerhof (2014) conducted an extensive review of studies between 1963 and 2013 and noticed patterns in the purpose of reminiscence such as social, instrumental, and integrative functions. Social purposes would include opportunities to converse with family or friends about life events. An example of an instrumental function would be using reminiscence to cope with or work through emotions from past events. Integrative functions are a combination of the previous two factors or an unforeseen element of reminiscence that was useful to the person. Each is a clear rationalization for the use of reminiscence to age successfully. Bohlmeijer and Westerhof also found that reminiscence focuses more on positive life events rather than a spectrum like in life review or a narrative. This is not to say that negative experiences are barred from reminiscence. Rather, if the negative event is part of a healing process for the individual and he or she is dealing with unsettled emotions, exploration is encouraged.

The value of reminiscence was furthered by the studies with the Legacy Project. In the Legacy Project, a participant, family member, and gerontology professional focus on reminiscence with the participant. The family member serves as a quality check to ensure the accuracy of the memories and to enjoy the time with his or her loved one. The professional compiles a memory book or recording of the memories discussed. Allen, Hilgeman, Ege, Shuster, John, and Burgio (2008) created a study where professionals were randomly assigned to participants for life review. Allen's study is some of the initial research using the Legacy Project. Participants reported higher levels of well-being and improved connections with family, but a decrease in depressive mood was not reported (Allen, Hilgeman, Ege, Shuster, John & Burgio, 2008). Allen found more positive reports in later studies with the Legacy Project. In the second study, participants and professionals were paired based on interests. The case studies found that the value of experience and connections with family were reported as well as decreases in depressive symptoms (Allen, 2009). This improvement could be due to the case-study focus instead of randomization. It also could be due to Allen's improved design or the specific group that she used. Increasing positive results are seen in subsequent

For grounded-theory studies, some suggest no literature review is needed. If one is required, attention must be paid so that the review does not unduly influence the grounding or creation of new theory. Other qualitative studies (narrative analysis, ethnography, grounded theory, case studies, and phenomenological accounts) include literature reviews—but the weight of a qualitative report is in its findings that use rich, thick text.

This study is narrative analysis using reminiscence to look at themes in the stories and how stories are told.

studies. Allen et al. (2014) studied whether volunteers conducting the Legacy Project would have levels of success that are similar to professionals conducting the project. With appropriate training, volunteers were shown to have the same competency and equally positive results as gerontology professionals (Allen et al., 2014). Because the studies on reminiscence with the Legacy Project had increasing success with varying methods, the current study will likely provide similar emotional benefits to participants.

Benefits of Reminiscence for Cognitively Impaired Older Adults

Reminiscence has had specific uses for older adults with dementia and thus may offer similar benefits to the mild cognitively impaired group in this study. Past research has shown that reminiscence can increase positive mental health, improve self-esteem, and better communication abilities (Dempsey et al., 2014). Dempsey et al. examined reminiscence as a therapeutic method for those with dementia. A main goal was to ensure a stable quality of life for participants by using reminiscence. Participants and their families engaging in reminiscence together was particularly adaptive and helpful to the older adults. Families reported that their loved ones—from the beginning to the end of the study—seemed to have improved their self-efficacy and well-being (Dempsey et al.). The current study will not specifically be using reminiscence as a therapy, but engagement with reminiscence in any form is likely to hold these benefits for mild cognitively impaired older adults. However, examining reminiscence with cognitively impaired people will fill a gap in the literature because much of the present research is on dementia and Alzheimer's disease rather than MCI.

Other studies have also shown reminiscence to progress the quality of life for older adults with dementia. Whether as a therapy or used more casually between older adults, reminiscence is commonly used in long-term-care settings for most older adults and especially those with dementia (O'Shea et al., 2014). Researchers do suggest that caution be taken. O'Shea et al. explain that reminiscence is frequently used and appears to show benefits, but its effectiveness is ambiguous. This may be due to the fact that there is not one universal definition of reminiscence that all researchers use for reminiscence. In addition, a tool has not been developed to specifically measure how reminiscence is impacting participants and whether a tangible, traceable change is occurring. A more precise method for measurement would be useful, but it may not be feasible given the nature of reminiscence research. Given the co-dependent conversational atmosphere that reminiscence requires, it would be difficult and nearly impossible to measure effectiveness in a calculated way. This is not to say that a method cannot be developed to better measure reminiscence. It is just that this method should not be expected to meet the precision of a mathematician or a chemist; reminiscence—personal interactions—cannot be quantified in that way.

Another benefit that is supported by Cooney et al. (2014) and Dempsey et al. (2014) is the engagement the person has with his or her staff and family members in long-term-care settings. The family and staff who had reminisced with participants on at least one point in time explained that they felt they understood the person better (Cooney et al.). By learning of the participant's past, family and staff were better able to accommodate for confusion behaviors (Cooney et al.). Research conducted with individuals who have dementia may be transferable to older adults with MCI. If this is not seen in the current study, my research will fill a gap in the literature that distinguishes benefits of reminiscence for people with dementia and benefits for people with MCI. In addition, differences between the MCI group and non-cognitively impaired group will deepen knowledge about how reminiscence types are used by each. This comparison will be important to professionals in the field as well as individuals that are personally affected by MCI to identify potential differences when engaging with these types of older adults.

Purpose and Research Questions

My study will fill several of the gaps explained above. In the proposed project, I will explore the impact that different types of reminiscence have on a sample of older adults. I particularly want to see how the meaningfulness of life events is connected to the type of reminiscence used for reflection. A new direction that my research will take is demonstrating the differences seen between reminiscence themes for mild cognitively impaired and non-cognitively impaired groups. Other specific gaps in the literature are seen because most studies have involved nurses or other older adults conducting reminiscence with participants (Allen et al., 2014). Although the literature has examined the authenticity of reminiscence types, it has not explored the most salient reminiscence types for a group of people. This will be discovered by analyzing themes for which types of reminiscence are used most often. The design and goals of the current study will add new insight to the body of literature as a whole.

I will study the types of reminiscence and themes of meaningful events that develop in interactions with older adults. The research questions I would like to study are (1) which types of reminiscence are associated with the most meaningful life experiences and (2) what differences are seen in regard to meaningfulness for mild cognitively impaired and non-cognitively impaired older adults? These questions are central to expanding upon which life events are most important or meaningful to older adults. This understanding will be relevant to most people because knowing which life events will be meaningful in later life may allow individuals to enjoy the moment more. Knowing what will be relevant 20 to 40 years down the road may increase determinedness to enjoy the present moment. Exploring reminiscence in non-cognitively impaired and mild cognitively impaired older adults can shed light on whether similar enjoyment of reminiscence is experienced by these two groups. Additionally, I will conduct the current research as a volunteer at the facility rather than as staff or a fellow senior. Literature is limited on the combination of factors that I will explore; this study will build on the need for research on significantly meaningful events, reminiscence, and cognitive impairment in conjunction with each other.

Methods

Design

A qualitative approach will be used to address my research questions. I will conduct an open-ended, guided interview study with some observational aspects. The interview process will be semi-structured with five to seven questions to prompt and focus the reminiscence (see Appendix A). I am taking a social constructivism approach because this

Research questions can be broad.

Descriptive studies are not testing a relationship; they seek to describe events with summary statistics. If the study's focus is on description, the research question states the goal of the study. If the design is inferential, the research question leads to the statement of hypothesis(es). Hypotheses must have direction (with the exception of those including nominal-level data) and degree of change. For example, how much will the independent variable cause a change in the dependent variable? Researchers should set P-values for significance levels— $p \leq 0.05$ (*), $p \leq 0.01$ (**), or $p \leq 0.001$. Hypothesis(es) must later be matched to appropriate statistical tests later in the report.

Mixed-methods designs can use a combination of research questions and hypotheses—depending upon their design.

Each quantitative methodological choice (surveys, single-case study, pre-testing/post-testing or experimental design, causal comparative, correlation, and structured observation) is suited to a particular application. Factors to consider when choosing a design include the purpose of your research design, population and sample options (design, size), availability of data, time needed for the project, time-constraint issues, planning, resources, existing materials, access to data, researcher's level of comfort with quantitative work, and comfort with older persons as co-researchers. Narrowing down these choices can help select the most suitable design type.

As a quantitative study, this project could be a pre-test/post-test quasi-experiment running the full Legacy intervention of nine weeks of structured reminiscence (as the intervention) or usual dementia groupwork (as the control group). The Alzheimer's Disease Related Quality of Life (ADRQL) instrument will assess quality of life as an outcome measure.

research will be guided by the experiences of each participant and my interactions with them. We will engage in a co-constructed experience. This approach allows for openness in the research process and is based on the idea that people construct understanding through shared experiences. I realize that I will have an influence on the stories participants tell and how they tell them. I feel that the meaningful interactions I have in the interviews with participants are still relevant to the field as a whole and necessary to achieve a shared experience. Learning more about the experiences of others will increase overall understanding of reminiscence. This approach fits best with the research questions and the aim of the study.

Researcher Stance

I must acknowledge my role and researcher's stance and realize that they will affect data interpretation. I am developing this study as I prepare myself for a career in gerontology and serving older adults. Over my lifetime, I have had a strong interest in cognitive impairment and dementia. Having had relatives with dementia, I am particularly intrigued by it, but I am choosing to begin my study in this area with MCI because it often does not have the higher levels of impairment that come with more advanced dementia. I have chosen to use reminiscence because of its conversational nature. I am a verbal processor, meaning I work through problems and make decisions by talking through the circumstances with someone. This is part of why I value reminiscence. Another component is that, while interning at a care facility, I encountered many older adults that wanted to discuss their lives with me. In fact, most of the residents wanted to do this. So, I truly feel that reminiscence is a well-fitted technique to use in research with older adults. From personal interest and experience, I am a strong supporter of taking a reminiscence approach with MCI older adults. My experiences should be recognized when considering my research.

Sample

The convenience sample will be gathered from a local care facility. Older adults that live independently in the community will not be used because research has identified important differences in demographics between community dwellers and those in institutions (Locher, Bronstein, Robinson, Williams & Ritchie, 2006; Wong & Watt, 1991). Participants will be recruited with the help of institution

Mixed-method research designs are classified according to time order (do quantitative and qualitative parts occur at the same time or does one follow the other?) and paradigm emphasis (do quantitative and qualitative parts have equal status or does one part have a dominant status?). Mixed-methods design types are sequential explanatory, sequential exploratory, convergent parallel, embedded, transformative, and multi-level.

As a mixed-methods study, this project could be a convergent parallel design that simultaneously combines qualitative reminiscence with older persons and a quantitative structured survey with care providers about the benefits of reminiscence across cognitive statuses.

Note the researcher's perspective and the researcher's reflection of her stance and role in the study. Adding this stance can help assess the interactive effect of the interviewer upon the interview.

Stating a philosophy or worldview applies to quantitative work as well. While a formal researcher's stance is not included, a researcher can briefly state his or her reasoning for a study design and selection of instruments/measures.

A quantitative study needs to describe how a sample was defined and collected. What were the eligibility criteria for inclusion in the sample? Was the sample probability or non-probability based? How was sample size calculated/determined? Are there weights attached to the sample? What was the response rate among respondents? If applicable—as in the case of a longitudinal or repeated measure—what were the attrition rates or amounts of missing data? Did those who left the sample have similar characteristics—such as being frail or living in a particular setting? For pre- and post-tests or quasi-experimental designs, was any cross-contamination between groups present? The text should also note the reason a particular sampling method was selected and the advantages and disadvantages of this particular method. Sample size and power would be discussed based on all types of statistical tests to be performed. Rationale/justification for sample size would be included with a table of participants' descriptive characteristics (of central tendency and variation along demographic and other key variables).

staff (see Appendix B). I will be in contact with the staff members and will ask them for a list of non-cognitively impaired and cognitively impaired older adults who would likely be interested in and capable of participating in the study. From these lists, I will begin the process of advertising the study and talking with the potential participants. Mental abilities to consent will be assessed using the Evaluation to Sign Consent measure (ESC) (see Appendix C). The Mini-Cognitive Assessment, which has a word recall and clock drawing element, will be used to determine whether potential participants are MCI or non-cognitively impaired (see Appendices D and E). Any interviews or meetings with older adults will be private and not in groups. Meeting will occur in the older adult's room or another appropriate and quiet location. The sample-size goal is 6 to 14 people aged 75 to 100. The older adults will likely have moderate to high economic status because they are able to afford long-term institutional care. This data will not be collected, but it is important to acknowledge the differences between this sample and the community population.

Tools

Evaluation to Sign Consent Measure

A concern is whether participants with MCI are able to offer their consent. The ESC consists of five evaluative questions to determine if the older adults have the mental understanding to offer their consent in the study (Resnick et al. 2007). Resnick et al. tested the validity and reliability of the Evaluation to Sign Consent (ESC) measure. The researchers found that more studies should be conducted with the ESC, but it has demonstrated consistent screening ability with multiple MCI groups. Researchers have been able to successfully dismiss potential participants who are too memory impaired to consent. This measure will be used in the current study.

Mini-Cognitive Assessment

It is essential to be aware that participants who are mild cognitively impaired are a vulnerable and challenging population to study. The Alzheimer's Association and Barnabe, Whitehead, Pilon, Arsenaault-Lapierre, and Chertkow (2012) are just two examples of successful involvement with this group. The cognitive assessment toolkit provided by the Alzheimer's Association is a resource full of evaluative measures that professionals in the organization use frequently to screen for levels of impairment. In fact, the current study will use one of the assessments from this freely available resource. The Mini-Cognitive Assessment will be used to determine the level of cognitive impairment (specifically

Since we are assigning pre- and post-test groups, the sample would include information about eligibility, inclusion/exclusion criteria, and how random sampling was achieved.

Here, staff are key informants and offer help in recruiting a sample. Some ethical issues about cognitive status and residence in skilled care are addressed later in the report.

Mixed-methods sampling designs are based upon the relationships of participants in each of the quantitative or qualitative parts of the design. Identical sampling has the same participants in all parts of the design; parallel sampling, nested sampling, or multilevel sampling can take multiple samples from different populations. Traditional mixed-methods designs use a nomenclature involving capitalization and arrows or plus signs. The prioritized method is in all capital letters; the lesser prioritized methods are in lowercase letters. A plus sign is used for methods occurring at the same time. Arrows are used to indicate the order of designs in that follow each other in time order. In this convergent parallel design—each design is equally weighted and done together in time:

QUAL



QUANT

Explicit operationalization of variables, scoring, and psychometric properties are stated. Initially, the researcher should define all concepts in the study with unambiguous, operationalized definitions. Measures of reliability for scales should be included that show the measure is appropriate/applicable for the intended population of interest. Suitability of measures is not universal but specific to group, language, and place.

memory) that the potential participant has incurred (Alzheimer's Association, 2015). This measure was selected to aid in the division of eligible participants into two groups: mild cognitively impaired (those with mild memory or other cognitive impairments) and non-cognitively impaired (those who are functioning at a high level). A score of one or two recalled words and an abnormal clock drawing task or a score with no recalled words will be sufficient to eliminate a participant from the study due to more severe cognitive impairment.

Interview Protocol

After final participant selection, I will conduct semi-structured interviews with participants over a minimum time frame of six weeks and possibly longer depending on scheduling. A digital recording device will be used in the interview to ensure authenticity of participant voice; the recordings will be stored on a password-protected computer on the UNC campus. I will also take minimal notes during the interview to record direct observations (describing the setting) and inferential notes (the participant appears tired during the interview). These notes will be kept in one notebook that I will use for the research.

See the Interview Script at the end of this paper. The researcher would want to take field notes or memos to record what he or she witnesses in observational work. As far as reflexivity, some suggest keeping research diaries, frequent/daily personal notes, creating visual representations, and talking with others (peers and participants) on and off your project as being helpful in a researcher's understanding and relaying his or her role.

Procedure

I am collecting important life events in the lives of older adults as well as the type of reminiscence they use to reflect on these events during the interview. Institutional Review Board approval will be obtained. Before the interviews, I will be in contact with the administrator of a local care facility to determine which residents would be interested in serving as participants. I will give my information to the administrator to pass on to family members or caretakers in case they would like to know more about or be involved in the process. Older adults who are interested in participating will be asked to contact me. When this has occurred, I will schedule a meeting with each older adult based on how our schedules match up. Meetings and interviews will be private, and the resident's information will not be shared outside of the research group. During this meeting, I will explain and administer the ESC measure to screen the potential participant on his or her ability to consent. Older adults who fail the screening measure will not be interviewed, and the process will end with me thanking them for their time. If participants pass the ESC, I will go through the consent document with them, allow them to ask questions, let them sign it if they choose to do so, and provide them with their own copy. The form will contain information for debriefing: contact information for counseling services and whom to contact

The types of statistical tests chosen, with rationale and relationships between variables are stated. Mediation, moderation, and control variables and way of addressing causality are noted.

For this example, test options include a Paired t-test: is there a difference in means in the pre- and post-test scores in all participants in the study—regardless of group? And, a repeated-measures ANOVA: do means differ between the intervention/Legacy group and control/regular activity group at time 1 (pre-test) and time 2 (post-test)?

For the qualitative interviews with older persons: codes and themes are developed. From the quantitative structured surveys with care providers: (based on level measurement) descriptive analysis of perceived views of reminiscence groups, crosstab/other bivariate analysis correlations, and possible multivariate analysis may be run.

with questions or concerns. The consent forms will be kept on campus for three years due to researcher policy requirements. If we do have remaining time left in the interview after completing the ESC and consent document, the participant and I will schedule another time to meet. In the next meeting (or continuation of the first meeting if there is time), the participant will choose a pseudonym for the interview and the assessments. They will be labeled with the pseudonym. The next assessment (hopefully to also be completed in this first interview) is the Mini-Cognitive Assessment. Each participant will complete this measure, and I will use their results to divide them into a MCI group and a non-cognitively impaired group. I will explain to those who do not meet non-cognitive impairment standards that they will likely still reap the benefits of reminiscence, and I just want to see how they engage in the process differently or similarly to another group.

This initial contact and screening will occur in the first two to three months depending on resident and researcher availability. When the groups are composed, I will begin the process of scheduling interviews where the older adults individually engage in reminiscence as I record their words on a digital recorder and take basic observational notes. Interviews will occur at a separate time from the initial assessment and will be based on how my schedule and each participant's schedule align. The interview will be held in a private location of the participant's choosing, such as the participant's room if appropriate or a quiet room in the facility. Initial ice-breaker questions will initiate the process. The important events in each participant's life and the natural flow of the conversation will dictate the direction of the interview. The interview will be allowed to occur for as short as the participant prefers (about 20 minutes) or as long as is reasonable (no longer than one hour). I have designed the interview so the conversation will flow naturally and with the length that the participant prefers. Immediately after each interview, I will ask each participant if I can contact him or her for a follow-up meeting after completing my analysis.

Data Analysis

Before the second interview with willing participants, I will listen to the interview recordings and reread my observational notes. Then I will transcribe the initial interviews and reread what I typed in the transcription to ensure accuracy for each participant. I will code each transcription for the types of reminiscence used to tell life events. Next, I will run qualitative software, such as Atlas.ti or NVivo, to detect the number of times

Data collection includes a description of the entire data-collection process: time interval of data collection, data collector (individual/team), instruments or tools used to collect the data, and problems that arose and how they were addressed (or not addressed) during the study. Secondary data require a description of the original use and intention behind the first data collection, along with the source of data collection and funder, if applicable.

Data cleaning examines raw data to check for values or answers that are out of range. Most often, data-analysis software, such as the Statistical Package for the Social Science (SPSS), Statistical Analysis System (SAS), or R Data Analysis Software, are used to assist with both data management and data analysis.

After cleaning, the data may be transformed/recoded. Good recoding practice mandates that a copy of the original dataset be kept, along with all variables (both recoded and original) and their operationalized definitions, in a codebook.

Mixed-methods data cleaning, reduction, and consolidation or transformation follows the practices of both qualitative and quantitative designs. For the quantitative data, frequency distributions and descriptive statistics help review data and identify outlying values. Variables can be recoded or collapsed. Qualitative data can be pooled with established coding criteria. Codes are created and made into larger code groups, or families, and discrepant cases/codes/counternarratives are noted.

Coded data lead to creation of themes (as ways to represent the data) with counternarratives (of different views) included. Looking for types of reminiscence categories is a deductive approach that uses categories of analysis (called codes) planned before the analysis begins. But, looking for concepts and ideas that arose while analyzing data and creating themes is part of an inductive approach. Here, a content-analysis approach is used to generate themes from the text.

different reminiscence types are encountered as well as the significant life events that interviewees discuss. From this analysis, I will develop themes for the connection between reminiscence types and significant life events. I will also evaluate the results for differences or similarities in themes between mild cognitively impaired and non-cognitively impaired older adults. Then, I will compile and write a general discussion (to be used in the follow-up interview) of the most salient themes from the first interviews.

Data Handling

In the second interview, each participant and I will individually ensure trustworthiness (member checking) of my interpretations by determining if the overall themes and impressions I coded accurately depict what they were communicating. If not, we will make note of this together and adjust my interpretation.

The screening assessments will have actual participant names on them but will be kept in my mentor's secure filing cabinet that only my mentor and I will have access to. Confidentiality will be maintained. After analysis for reminiscence types and themes, the assessments and the included names will be permanently destroyed. The interviews will be private, and participants will have a pseudonym of the participant's choice and will be separated from the measures with names on them after analysis is complete. The notes taken will have the pseudonym on them. Digital recordings will be permanently destroyed after analysis is complete. Screenings, assessments, and recordings will not be kept longer than one month after the final analysis has been conducted and secured for the purpose of the project. Transcripts will not include identifiable information and thus will be kept indefinitely.

Trustworthiness

Assurance of quality will be obtained through two means: member checking and definition of reminiscence types (Wong & Watt, 1991). The follow-up or second interview will ensure that I analyze and report what the participants actually meant to say. When coding data, I will use the definitions for reminiscence types that Wong and Watt developed when identifying the types. This is so I can clearly know that Participant A was talking about reminiscence Type B when discussing Event C. My research will examine the phenomenon of reminiscence from a different point of view. This will increase overall understanding of reminiscence.

While software may assist in the data-analysis process, it should never drive analysis. The advantages include managing large amounts of textual, audio, and visual data, assistance with organizing codes and categories, and ways to graphically/visually represent the data. Limitations include being more removed from the data, the software learning curve, and the risk of overreliance on technical (and not methodological) design. The goal of software in analysis should never be to quantify qualitative work.

Data analysis consists of taking cleaned/recorded data and applying them to the statistical tests chosen as part of the design of the project. It is important to recheck that the data meet the requirements and assumptions of the test. Any variation should be stated. Steps in the process must be clearly stated. Significance levels of results must be reported as they detail the level by which results are real and not by chance. Yet, it must be noted that significant results do not necessarily mean meaningful or important results; that is where the researcher's interpretation comes into play.

Mixed-method designs include constant comparative design and triangulation. Post-cleaning and condensing of data, qualitative data's themes can be compared and combined or synthesized. Descriptive (frequency distribution, summary statistics) and inferential analysis can occur (cluster analysis, correlation, ANOVA, multivariate, SEM, path) for quantitative data. Qualitative themes and quantitative variables for the same constructs can be compared. Integration of quantitative and qualitative elements data and findings is the goal of mixed-methods designs. True data integration can happen in three ways: Data are integrated by building through sequential integration. Also, data are integrated by merging or bringing the quantitative and qualitative elements together. Integration can also be embedded and happening repeatedly throughout the ongoing data analysis.

In this convergent parallel example, data are integrated by comparison and merging. Mixed methods often use visual displays and/or matrices to help the reader see how the data from each design have been integrated and work together.

In qualitative studies, rigor is called trustworthiness (which includes credibility transferability, dependability, and confirmability). If a team analyzes data, consider inter-coder reliability or inter-coder agreement.

Timeline and Intended Outcome

This study will occur over a five-month to six-month time period. The first month will involve recruiting and screening potential participants. Then, I will begin the cognitive assessments and interviews with quality checks for up to two months. The final step will be data analysis for themes as well as a full manuscript of the study (abstract, methods, literature review, results, discussion, etc.). The last three to six months will be this process. I also plan to submit my research for publication in a peer-reviewed journal and will present at several conferences.

IRB and Ethical Concerns

Some mild frustration may occur when screening with ESC and the cognitive assessment occurs. If needed, I will provide documents in larger text for older adults who are undergoing vision changes. Only older adults who can consent will participate. I will clearly tell the older adults that they may stop at any time. Their wishes will be respected. Participants may experience mild to moderate emotional discomfort if they choose to discuss events from the past that are upsetting. I, as the researcher, will not probe for these types of events but will let the participants determine how much they feel comfortable sharing. If there is excessive distress, I will ask the participants if they would like to change the subject or if they would like to continue at all. I will respect their decision to cease participation if that is what they choose.

Potential costs include digital recorder, paper and ink for the two screening measures, and access to qualitative analysis software. The primary cost to participants is their time. This should be considered when they are deciding whether to consent or not, but, if they decide to leave the study at any point, this decision will not reflect negatively on them in any way.

There may also be benefits for the older adults from their engagement in this research. Conversing with the researcher may serve as a friendly social visit for participants. This could be particularly beneficial to older adults who do not get many visitors at the care facility. Engaging in reminiscence for their own enjoyment, working through unresolved emotions, and offering advice to the researcher through reminiscence are possible benefits during this process. There are also indirect benefits. In the bigger picture, participants will be contributing to literature in the gerontology field about reminiscence and mild cognitive impairment in older adults.

Validity questions whether the right concept is being measured. In other words, is the researcher really measuring the concept that he or she intends to measure (e.g., face validity, construct validity, content validity, concurrent validity, etc.)? Reliability refers to stability or consistency of a measure over a brief time interval (e.g., test-retest reliability, intra-observer, or intra-rater reliability, inter-item reliability, alternate-form reliability, etc.). If a team analyzes data, consider interrater reliability in data collection and analysis. Researchers generally cover the basics of reliability and validity in reporting, such as Cronbach's alpha, to show Likert-scale reliability or interrater reliability if there is a research-data collection team. Face validity is often assumed through the explicit operationalization or definition of variables. But, content or criterion validity, as well as other forms of both validity and reliability, should be discussed because they directly impact the researchers' choice of measures.

A mixed-methods study maintains the individual integrity of each part of the design. Quantitative and qualitative standards and vocabulary need to be used and matched to that element. For quantitative parts, discuss reliability and validity, and for qualitative parts, address rigor. Issues of representativeness (in the quantitative part) and saturation (in the qualitative designs) should be addressed. In mixed-methods designs, legitimization addresses validity, while inference transferability allows researchers to apply findings of one study to other settings. Inference transferability refers to how well and in what settings a mixed-methods study's results can be applied more broadly.

For those with impaired cognitive status (such as dementia), qualitative researchers have found ethical concerns about persons with impairment being silent, answering in shorter phrases or the affirmative, echoing the answers of caregivers, or not understanding study requirements. Researchers suggest the consent process be an ongoing process rather than a one-time event. Researchers also warn that gatekeepers can exclude participation when the person with dementia may wish to consent. Residents living in care settings may also be subject to gatekeepers making their own decisions about consent and possible inclusion in a study for their residents without including the resident in the process. These gerontology-related ethical issues encountered, and how they were addressed, should be reported.

Quantitative research requires statistical skill or access to software to conduct analysis. Analyses can be run with differing significance levels, parameters, and tests to achieve significance results. Research can conflict (or be confused) with clinical treatment in some designs. There is the potential for data linking, or merging older persons' records with other data sources and across studies. The quantitative researcher is present throughout the work—from initial design to operationalization of variables, data collection, and choice of test for the analysis, and writing of the report. Researchers should state their choice of design/method, crossover with medical or other roles, protection of participants' information, and sensory and cognitive changes that could impact quantitative work.

A mixed-methods study's ethical issues are a combination of the designs used in the study.

If this was a complete report (not a proposal), several sections would appear here with findings from the data. These sections are as follows:

Research Results/Discussion of Findings:

Be explicit about your coding or other data-analysis processes. The reader wants to know how you developed codes (deductive, inductive coding, etc.) and who did the coding. The write-up of analysis needs to be more than one sentence, such as "thematic content analysis was used to code data"—especially for readers less familiar with qualitative designs. Do not feel you have to make the report of your findings narrow or fit cookie-cutter molds. Use the deep, thick, rich text descriptions that are an essential feature of the work. Blocks of direct participants' quotes are the hallmark of good qualitative writing.

Conclusion:

Tell the readers what your study adds to the body of literature and (in the case of grounded theory) what new theories or frameworks were created because of your study.

Research Results/Discussion of Findings:

Findings from statistical tests are presented in narrative and tabular form with levels of significance.

Conclusion:

Findings need to be linked back to the research questions and hypotheses. Were they "proven" or supported via statistical testing? Were these findings interpreted beyond statistical significance and applied back to the original goals of the study? Were the findings tied back to either theoretical premises or a conceptual model? Were plausible explanations given as to why the proposed relationship was not found? Limitations and appropriate groups to generalize results to are noted. Did the authors provide both implications of their findings to practice and the field and give future directions for additional research?

Research Results/Discussion of Findings:

The key to mixed-methods results discussion is to talk about how the results of the individual designs work together to inform each other.

Conclusion:

Mixed-methods theorists suggest that meta-inferences are stated. Meta-inferences are analogous to a conclusion or a summary section in other designs. Mixed-methods conclusions need to detail the ways findings are applicable to other groups.

Authorship Contribution: Many journals require each author listed to disclose his/her contribution to the article. Typical roles include conceiving the study's idea and designing the study, collecting and analyzing data, performing specialized analysis, etc. Establishing authorship order and assigned roles at the onset of a study is a good practice.

Conflict of Interest Statements: may also appear here if the author financial support for the study or other relationships that may influence the study.

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Sample Research Report Appendix A

Potential Interview Questions: Semi-Structured

Begin: Hi, I'm Rebecca, a student at the University of Northern Colorado and am here to interview you about your significant life experiences. We can treat this like a casual discussion, and the only requirement is that you discuss at least two events that have had a major impact on your worldviews, relationships, faith, or life in general. Does that sound good to you? (*Recall: I will have already conducted two assessments with the participant at this point.)

Ice breakers if needed:

- (1) How have you been today?
- (2) What are some of your hobbies? What did you do for work before?

Conversation encouragers/probes if needed:

- (3) How did your parents make a living?
- (4) How many brothers and sisters did you have?
- (5) Who has had the greatest influence on your life?
- (6) What were some of your family traditions?
- (7) What are some of your hobbies? How did you pick them up?
- (8) How old were you when you got married?
- (9) Where have you visited? What places did you like the most?
- (10) Where have you lived?
- (11) What was your greatest challenge? How did you meet it?
- (12) What do you feel is your greatest achievement?
- (13) What are the societal changes you have seen taking place in your lifetime?

This interview script is a starting point with suggested questions to guide the interview.

Sample Research Report Appendix B

Letter of Permission for Research

I, _____, allow permission for _____
to enter this care facility on [scheduled dates] for the purpose of collecting data in research
that has received Institutional Review Board approval. Rebecca Artzer may engage in the
approved cognitive assessments and interviews with residents who are able to give and have
given their consent.

Facility Administrator Signature

(Date)

Researcher Signature

(Date)

Since this study is at a skilled-care facility,
a letter from the Nursing Home Administrator
is needed for the Institutional Review Board
(IRB) and shows the facility's support of
the study.

Sample Research Report Appendix C

ESC Questionnaire and Acceptable Answers

1. What are two potential risks? Frustration; emotional upset; physical discomfort while sitting during interview; no risk.
2. What is expected from you, the resident? Complete assessments; answer questions; converse with Rebecca; discuss life events.
3. What if you don't want to continue? Ask to stop.
4. What if you experience discomfort? Say something; ask to stop.
5. How is it decided who gets to participate in this study? Voluntary participants; ability to give consent; recommended from staff or fellow residents.

The ESC protocol is used to assess understanding of the study's specific requirements. Questions and acceptable answers to questions are listed here.

Sample Research Report Appendix D

Mini-Cog™ Questions

Appendices D and E would include some mental assessments and screening tests. These are not needed for all studies with older persons (of course); they are included for this study because it includes people across the cognitive spectrum.

The Mini-Cog™ that includes word recall and clock-drawing tasks is not reproduced here. This test is not in the public domain. To reproduce the tests, researchers should contact the test creators who hold the copyright. See Borson, S., Scanlan, J., Brush, M., Vitaliano, P., and Dokmak, A. (2000). The Mini-Cog: A cognitive 'vital signs' measure for dementia screening in multi-lingual elderly. *International Journal of Geriatric Psychiatry*, 15, 1021–1027.

Sample Research Report Appendix E

Mini-Cog™ Clock Drawing

Appendices D and E would include some mental assessments and screening tests. These are not needed for all studies with older persons (of course). They are included for this study because it includes people across the cognitive spectrum.

The Mini-Cog™ that includes word recall and clock-drawing tasks is not reproduced here. This test is not in the public domain. To reproduce the tests, researchers should contact the test creators who hold the copyright. See: Borson, S., Scanlan, J., Brush, M., Vitaliano, P., and Dokmak, A. (2000). The Mini-Cog: A cognitive 'vital signs' measure for dementia screening in multi-lingual elderly. *International Journal of Geriatric Psychiatry*, 15, 1021–1027.

Sample Research Report Appendix F

Large-Print Consent Document for the Visually Impaired (Can Be Made Larger or Formatted as Needed)

University of Northern Colorado

Consent Form for Human Participants in Research University of Northern Colorado

Project Title: Reminiscence with Mild Cognitively Impaired and Non-cognitively Impaired Older Adults

Researcher: Rebecca Artzer, Undergraduate Researcher
(970) 351-2403
Advisor: Joyce Weil, Ph.D., School of Human Sciences
(970) 351-1583

An example of an Informed-Consent document. The document should be formatted to meet the needs of the group studied.

Purpose of the study: I am a student at the University of Northern Colorado. I am studying the life stories of older adults. I want to compare the stories of people who have no memory problems with the stories of people who have just a little trouble with their memory or thinking. I would like to interview you, asking questions like: Who has had the greatest influence on your life? Where have you lived?

Tests and interview schedule: If you agree to participate in this study, here is what would be expected of you: The interview schedule would be:

- A 20-minute introductory test to measure your understanding of the consent process. I want to be fair in asking you to make a decision about participating in this study
- Consent form process: 20 minutes or more if needed
- A 15-minute test of your memory and thinking skills

Then, depending on results of tests:

- One or two interviews (30-60 minutes)
- Follow-up interview (20 minutes, optional)

Confidentiality: You may choose a fake name in place of your real name so what you say cannot be tied to you personally. I will use this fake name if I talk about your stories to other

Page 1 of 2 _____ (participant initials here)

people in my field. I cannot promise complete privacy at [nursing facility name here] because nurses or your neighbors may walk in during my conversations with you, but I will do my best to allow for privacy. I will use an electronic recorder in our interviews so that later I can type up what we talk about.

After I have typed up our meetings, I will permanently get rid of the recordings. I will also take a few hand-written notes as reminders for me about our interview. Your test results and my hand-written notes will be locked in my research advisor's office, Gunter Hall 1250, at the University of Northern Colorado.

Participation: Risks involved in this study are minimal, likely to not be greater than those encountered on a daily basis by older adults in care facilities. If you desire, you may seek counseling from [care facility service's name] and can contact them at [(000) 000-000].

Participation is voluntary. You may decide not to participate in this study, and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference.

If you have any concerns about your selection or treatment as a research participant, please contact Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

Please feel free to phone the researcher if you have any questions. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. You will receive one copy of this form for future reference. If you have any concerns about your selection or treatment as a research participant please contact the Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.

Participant's Signature

(Date)

Researcher's Signature

(Date)

Sample Research Report Appendix G

Read-Aloud Common Language Consent Section

Participation

Being in this study is completely your choice. You can choose not to participate at any time, and I will not question your choice. Your choice about being in the study or not being in it will not impact the care you are getting. You will not have any specific benefits from being in this study. But you will help me and those in my field to know more about life stories from older adults like you. By participating, you will face risks that are likely to not be more than what you see on a day-to-day basis. If you desire, you may seek counseling from [care facility service's name] and can contact them at [(000) 000–000]. Please let me know at any time about any questions or problems you have with doing this study. If you do not feel comfortable talking to me, you can contact Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970–351–1910.

Having a verbal script to read to participants can help assure study requirements are known when consent is given.