

THE RELATIONSHIP BETWEEN SENSE OF COMMUNITY AND SELF-EFFICACY
AMONG SENIOR CITIZEN STUDENTS

by

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Liberty University

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Of the Requirements for the Degree
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ABSTRACT

Older adult students are at risk academically. The senior citizen population and average life expectancy are increasing globally, which results in an increased number of adults returning to school later in life. Sense of community is related to academic engagement, achievement, interactivity, and retention. Self-efficacy is related to motivation, learning, and academic performance. One gap in the literature is the relationship between sense of community and self-efficacy for senior citizen students. The purpose of this quantitative, correlational study is to determine if there is a relationship between sense of community and self-efficacy among senior citizens recently enrolled in a college-level course. One hundred students 50 years old and older attending a statewide Community College from a Midwestern state were surveyed using the Sense of Community Index II and Generalized Self-Efficacy Scale. Pearson's r was used to identify the correlations. The results of the study indicated a significant relationship between sense of community and self-efficacy. The results could have implications for students 50 years old and older, educators working with older adults, and higher education administration developing educational policies and programs designed for non-traditionally aged students. Further research, qualitative and quantitative, is needed to further analyze the relationship of sense of community and self-efficacy among senior citizen students. More research is recommended on the effects of age on adult learners' success comprising of students attending postsecondary education including but not limited to other community colleges, universities, for-profit or non-profit schools, community-led classes, workplace training, and grant-based professional development programs.

Keywords: sense of community, self-efficacy, andragogy, senior citizen

Table of Contents

ABSTRACT3

Table of Contents4

List of Tables7

List of Figures8

List of Abbreviations9

CHAPTER ONE: INTRODUCTION.....10

 Overview.....10

 Background.....10

 Problem Statement15

 Purpose Statement.....16

 Significance of the Study16

 Research Question18

 Definitions.....18

CHAPTER TWO: LITERATURE REVIEW19

 Overview.....19

 Theoretical Framework.....19

 Andragogy.....19

 Sense of Community.....21

 Self-Efficacy22

 Related Literature.....24

 Sense of Community.....24

 Self-Efficacy28

A Growing Senior Population.....	31
Seniors Living in Community.....	32
Retirement and Third Age	35
Lifelong Learning	38
Senior Citizen Students.....	40
Well-being.....	42
Active Aging.....	43
Quality of Life for Senior Citizens	45
Risks Associated with Aging	45
Summary	47
CHAPTER THREE: METHODS	49
Overview.....	49
Design	49
Research Question	50
Hypothesis.....	50
Participants and Setting.....	50
Instrumentation	51
Sense of Community Index II.....	51
Generalized Self-Efficacy Scale	52
Procedures.....	54
Data Analysis	54
CHAPTER FOUR: FINDINGS	56
Overview.....	56

Research Question	56
Null Hypothesis	56
Descriptive Statistics.....	56
Results.....	57
Data Screening	57
Assumption Tests.....	57
Null Hypothesis	62
CHAPTER FIVE: CONCLUSIONS	64
Overview.....	64
Discussion.....	64
Implications.....	67
Limitations	69
Recommendations for Future Research	70
REFERENCES	72
APPENDIX A: SENSE OF COMMUNITY INDEX II	88
APPENDIX B: GENERAL SELF-EFFICACY SCALE.....	91
APPENDIX C: WRITTEN PERMISSION FOR USE OF INSTRUMENTATION	93
APPENDIX D: INSTITUTIONAL REVIEW BOARD EXEMPTION.....	94
APPENDIX E: PARTICIPATING COLLEGE’S IRB EXEMPTION	95
APPENDIX F: PARTICIPANT RECRUITMENT LETTER	97
APPENDIX G: CONSENT FORM	98

List of Tables

Table 1	57
Table 2	60
Table 3	62
Table 4	63

List of Figures

Figure 1. Box plot of SCI-2 and GSE scores with two outliers for GSE.....	58
Figure 2. Scatter plot of SCI-2 and GSE total scores	61

List of Abbreviations

Association for the Study and Development of Community (ASDC)

Coronavirus disease (COVID-19)

Generalized Self-Efficacy Scale (GSE)

Health and Retirement Study (HRS)

IBM Statistical Analysis Software Package (SPSS)

Institutional Review Board (IRB)

Osher Lifelong Learning Institute (OLLI)

Sense of Community Index (SCI)

Sense of Community Index II (SCI-2)

CHAPTER ONE: INTRODUCTION

Overview

This chapter introduces the study investigating whether there is a relationship between sense of community and self-efficacy among senior citizens recently enrolled in a college-level course. The researcher included background regarding adult learners and the consequences of being a non-traditional student, the impact of the global rise in senior citizen population, as well as an overview of the concepts and theories of adult learners, sense of community, and self-efficacy. The problem statement, purpose of the study, significance of the study, research question, and definitions to orient the reader to the contents of the study are presented.

Background

Non-traditional student retention is a major concern in higher education (Saunders-Scott, Braley, & Stennes-Spidahl, 2017). The United States Department of Education (2020) simply defines high-needs students as students at risk of educational failure or otherwise in need of special assistance and support. Life experienced, mature students are considered at risk academically and bring with them a host of unique needs that are distinct from their traditional-age counterparts (Hayes, Fry, & Cummings, 2017). At-risk students are more likely to demonstrate less sophisticated learning strategies and study skills, experience lowered academic achievement, and increased distress and frustration (Bowering, Mills, & Merritt, 2017). A review of the formal educational backgrounds of older generations in the European Union indicated that a large majority had minimal access to formal education in their youth. This situation continued throughout their lives with few participating in lifelong learning (Eurostat, 2020). The increase in digital technology use in education accommodates the needs of younger generations but creates another education-based digital divide for older adult students (Mestheneos & Withnall, 2016).

The number of senior citizens in the United States is expected to be almost double by 2050 than the number of senior citizens in 2012 (Ortman, Velkoff, & Hogan, 2014). Baby boomers represent individuals born between 1946-1964 due to the sudden global increase in the world population following the Second World War (Colby & Ortman, 2014; Hogan, Perez, & Bell, 2008). Ortman et al. (2014) reported baby boomers are largely responsible for the global increase in the older population, as they began turning 65 in 2011. By 2029, when all the baby boomers will be 65 years and older, more than 20 percent of the total U.S. population will be over the age of 65 (Colby & Ortman, 2014).

People with optimistic expectations of life in old age typically have the desire to live up to and beyond current average life expectancy (Bowen & Skirbekk, 2017). Living a long life involves accepting conditions associated with aging in society (Jacobsen, 2017). One challenging aspect society has faced is which age is appropriate to associate with terms like *elderly*, *senior citizen*, or *old*. Historically, the concepts of *old*, *senior citizen*, and *aging* have never been fixed within societies (AARP, 2018; Jacobsen, 2017; United Nations, 2018). The use of such terminology and an associated age range have been situational. The average life expectancy of a given period in history impacts the concept of old age. The concept of the age associated with being a senior citizen has increased in the modern world with the increase in global average life expectancy (Larson & DeClaire, 2017).

Associating people 50 years old and older as senior citizens has been popular among special promotions, gerontology-based organizations and programs, and research studies to encapsulate the largest possible pool of participants that may associate with an aging cohort. AARP is an organization that has historically used 50 years of age and older as a prerequisite to join as a member. AARP was founded in 1958 by Dr. Ethel Percy Andrus as the American

Association of Retired Persons and later shorted to the current abbreviated title (AARP, 2018).

Dr. Andrus was a retired teacher in the late 1940s when she began advocating for the rights of California teachers who were forced into retirement at the age of 60. She began a private national effort towards involving independent organizations in the rights of senior citizens (AARP, 2018). By 1947, the National Retired Teachers Association was founded in Berkeley, California. Dr. Andrus was their first elected president (AARP, 2018). The efforts through this organization led to legislative victories, national retirement homes, and health insurance benefits all focused on senior citizens (AARP, 2018). AARP was eventually formed by Dr. Andrus and NRTA to further coalesce aging Americans into a cohesive national group (AARP, 2018).

The Young Men's Christian Association (YMCA) was founded in 1844, in London, England, in response to unhealthy social conditions arising in the big cities at the end of the Industrial Revolution (Marshfield Clinic Health System YMCA, 2018). Many colleges and universities, along with practices in higher education in America, can be traced back to the YMCA. Springfield College founded in 1885, George Williams College of Aurora University founded in 1886, and Golden Gate College, founded in 1923, are all examples of colleges that began as a YMCA (Marshfield Clinic Health System YMCA, 2018). During the 1920s and 1930s, YMCA's had cooperative agreements with some of the most prestigious institutions of higher learning in America, including Oberlin College, Yale Divinity School, Whittier College, Columbia University and Union Theological Seminary (Marshfield Clinic Health System YMCA, 2018). YMCA's in the 19th and early 20th centuries were more involved in higher education than they are now due to federal assistance and national programs dedicated to adult learners.

Adults have been attending higher education institutions for hundreds of years. The Sapienza University of Rome was founded in 1303 while University of Perugia was founded in 1308 (Universita Degli Studi di Perugia, 2018). Despite adult education having such a rich history, research on later life learning and the associated benefits only dates back to the early 20th century (Talmage, Mark, Slowey, & Knopf, 2016; Withnall, 2016).

Adult Learning (Thorndike, Woodyard, Bregman, & Tilton, 1928), the first book to report research on whether adults could learn, was published immediately following the founding of adult education as a professional field of practice (Merriam, 2001). Research on adult learning, cognitive development, and problem solving has been a focus of study by educational psychologists since the 1950s (Merriam, 2001). The development of intelligence tests came about during the early 20th century that sparked further interest in researching how adults learn over time (Cicciola, Foschi, & Lombardo, 2014).

Malcom S. Knowles developed andragogy in the mid-1960s to serve as the theoretical background of adult learning (Knowles, 1984). The term “andragogy” was coined in 1833 by Alexander Kapp, but the adult learning theory is attributed to Malcom Shepard Knowles (Graham, 2017). Knowles was convinced that adult learning had to be self-driven and adults should be taught the power of self-motivated learning (Graham, 2017; Loeng, 2017). Knowles (1959) felt adult learning should produce an outcome wherein adults acquire a mature understanding of themselves.

Self-efficacy and student success have been linked in numerous studies. Higher self-efficacy relates to improved retention and student success among older adults (Helmes & Klinger, 2017). The concept of self-efficacy serves as a strong predictor of a student’s academic success (Chen & Starobin, 2017). Self-efficacy was first introduced in 1977 by Stanford

University psychologist Albert Bandura as the center of his social cognitive theory (Bandura, 1977). Self-efficacy was defined as beliefs that individuals have about their capacities in each situation (Bandura, 1989). Bandura (1997) demonstrated that self-efficacious individuals participate more readily, work harder, persist longer, and have fewer adverse emotional reactions when they encounter difficulties.

According to McMillan and Chavis (1986), the earliest research on community in American sociology was by Robert E. Park and Ernest W. Burgess in 1921 and focused on the boundaries established by neighborhood residents. David W. McMillan presented the conceptualization of a theory of community in a working paper of the Center for Community Studies (McMillan & Chavis, 1989). McMillan defined sense of community as a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to being together (McMillan, 1976). The sense of community theory has been in development since the mid-20th century (McMillan & Chavis, 1986).

Previous research shows a relationship between sense of community and self-efficacy for university students (Ergun & Avci; 2018; Maton et al., 2016). The results of a study of university students in an e-learning community revealed that the academic self-efficacy and sense of community of the students positively affect their knowledge sharing behaviors (Yilmaz, 2016). This study provided further research in the relationship between sense of community and self-efficacy, focusing on the educational subgroup of senior citizen students.

Problem Statement

Self-efficacy research has been conducted for a wide range of skills and competencies. Self-efficacy research in education addresses student and instructor perception of self-efficacy related to age, gender, academic year, years since attending an academic program, learning environments, and distance learning (Ritchie, 2015). Self-efficacy is a strong predictor of an adult student's motivation, learning, and academic performance (Imus, Burns, & Weglarz, 2017). Adult students have been found to have a stronger link than children students in self-efficacy levels and variations in the relationship between self-efficacy and performance (Talsma, Schuz, Schwarzer, & Norris, 2017).

Research has been conducted on the concept of sense of community in a variety of instances. Multiple studies on the concept of sense of community in education are related to distance learning and technology (Haar, 2018; Hatzipanagos & John, 2017; Jiang, 2017). Research suggests that sense of community in education is a promising construct in terms of its ability to promote students' well-being (Prati, Cicognani, & Albanesi, 2018). Research also finds sense of community to be a significant predictor of a student's social skills, academic engagement, student satisfaction, and perceived learning (Chukwuorji, Ifeagwazi, Nwonyi, & Ujoatuonu, 2018; Haar, 2018; Prati et al., 2018).

Research showing the relationship between sense of community and self-efficacy is limited. Previous research found a small positive relationship between sense of community and self-efficacy among university students (Ergun & Avci; 2018; Maton et al., 2016). A study by Yilmaz (2016) found the academic self-efficacy and sense of community positively affected the knowledge sharing behaviors for online university students enrolled in a technology-based course.

However, a significant correlation between sense of community and self-efficacy, especially in the population of senior citizen students, was difficult to find due to the scarcity of such studies. Self-efficacy and sense of community have been studied separately in senior citizens (Bonsaksen et al., 2018; Capone, Donizzetti, & Petrillo, 2018; Hur, 2018). The problem is that further research is needed in finding and studying other causes of strong self-efficacy and sense of community as called for by numerous studies (Capone et al., 2018).

Purpose Statement

The purpose of this study is to determine if there is a relationship between self-efficacy and sense of community among senior citizen students. A quantitative, correlational design was used to establish if there is a relationship between the predictor variable, sense of community, and the criterion variable, self-efficacy. Sense of community is a feeling that members have belonging, a feeling that members matter to one another and the group, and a shared faith that members' needs will be met through their commitment to being together (McMillan, 1996). This study measures sense of community as the context of a learning community because the subjects recently took a college course. Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior, and social environment (Bandura, 1997). Self-efficacy is measured as a general sense of self-efficacy. For this study, a senior citizen includes people 50 years of age and older and those who self-identify as a senior citizen (Talmage, Mark, Slowey, & Knopf, 2016, United Nations, 2018). The participants consisted of 100 senior citizens recently enrolled in a college-level course.

Significance of the Study

A higher sense of community increases the likelihood of people actively participating and socializing in their community (Lampinen, Suutala, & Konu, 2017). Research on the topic

benefits higher education institutions as they are often founded on the concept of creating a community of lifelong learning and increasing student self-efficacy (Soares & Dias, 2018). This study is significant because of the value it adds to developing an academic community based on improving self-efficacy among at-risk students.

Yang, Schneller, and Roche (2015) suggested encouraging students' self-efficacy to close the gap between the training students receive and their ability to put this training into practice. This study will be useful for universities training students to enter the workforce along with those returning to the classroom as a life-enrichment and lifelong learning opportunity. Research on self-efficacy for students may lead to methods and procedures designed to help students retain information and apply the new skills (Bal-Tastan et al., 2018).

The growing number of seniors expected over the near future will result in growing demands in health and social welfare services (Somrongthong et al., 2017). Understanding the relationship between sense of community and self-efficacy may lead to increased health awareness, risk prevention, and care programs for people as they age (Zhang, Zhang, & Zhou, 2016). Senior adults are encouraged to engage in social activity in later life to enhance both psychological and physical wellbeing and may result in living longer and healthier (Somrongthong et al., 2017). This study could have a significant impact on mental health services, senior-focused organizations, academic and science research, social services, and other gerontology related industries (Zhang, 2018). Sense of community and self-efficacy are factors associated with well-being, active lifestyle, and quality of life; all of which are linked to a longer life expectancy (Bandura, 1997; McMillan, 1996; Pretty, Bishop, Fisher, & Sonn, 2006). Researching variables and concepts that have the potential to increase overall life expectancy is a positive direction for academic and scientific research.

Research Question

RQ: Is there a relationship between sense of community and self-efficacy among senior citizen students?

Definitions

1. *Active-aging* - Process of optimizing opportunities for health, work, social participation, and security to enhance an aging person's quality of life (Hur, 2017).

2. *Andragogy* – According to Knowles (1980), andragogy is the art and science of adult learning, thus andragogy refers to any form of adult learning.

Self-efficacy - The combination of emotion and personal valuation of a task resulting in a desire for various levels of enjoyment (Ainley & Ainley, 2011).

4. *Senior citizen* – For the purposes of this study, people 50 years of age and older and those who self-identify as a senior citizen (Mestheneos & Withnall, 2016).

5. *Sense of community* – An individual's perception and evaluation of their community (Sarason, 1974).

CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter provides a background on the concepts of sense of community and self-efficacy for senior citizens in a learning environment. The theoretical framework for this study is based on andragogy, the theory of sense of community, and self-efficacy theory. The importance of the concepts of sense of community and self-efficacy for senior citizen students is reviewed. This review examines the related literature regarding demographic and socioeconomic factors of sense of community and self-efficacy, sense of community and self-efficacy in the workplace, in education, and ways to increase sense of community and self-efficacy, and how sense of community and self-efficacy applies to senior citizens. In addition, the literature discussed factors unique to senior citizen students, including the growing global senior population, seniors living in community, retirement and third age, lifelong learning, well-being, active-aging, quality of life, and consequences associated with entering a learning program later in life. Professional literature conclusively links sense of community to self-efficacy, but there is a gap in the literature showing how sense of community and self-efficacy affect senior citizen students.

Theoretical Framework

Andragogy

Malcom Knowles has been credited with being the founder of andragogy while the first person to use the term “andragogy” was Alexander Kapp in a book published in 1833 (Loeng, 2017). Kapp’s knowledge spawned research in Europe focused on adult education. Europe’s earlier adoption to the adult learning resulted in differences between European and North American theories of andragogy, especially about their social role (Loeng, 2017). Knowles’s

research and the subsequent advancements in andragogy is the framework this study uses in relation to senior citizen students.

Knowles (1984) described pedagogy as a teacher-led philosophy in which the educator assumes students to be dependent learners and emphasizes content rather than problems. This method requires the educator to be in control of the learning process and outcome. Knowles (1980) said pedagogy is the preferred method when the learners' maturity level is low, and their knowledge of the subject matter is negligible. Pedagogy focuses on how children learn while adult students bring a different set of experiences as well as needs to an instructional setting (Feltsan, 2017).

Andragogy, also known as the adult learning theory, is the method and practice of teaching adult learners (Knowles, 1980). Andragogical methodology is preferred for mature learners and in situations when learners have more familiarity with the subject matter domain (Knowles, 1980). The term “andragogy” was popularized by the research and other bodies of academic work of Malcom Knowles during the 1970s (Loeng, 2017). Knowles, considered a pioneer in the field of adult learning, often referred to his adult learning theory as andragogy to separate the principles from those used in pedagogy (Feltsan, 2017).

Andragogy is based on five phase theories which assume that adults are self-directing, have experience, integrate learning into their daily lives, are more interested in problem solving, and are more intrinsically motivated (Feltsan, 2017; Knowles, Holton, & Swanson, 2012). Knowles (1984) said andragogy is a transactional model in that it speaks to the characteristics of the learning transaction, not to the goals and aims of that transaction. Knowles (1980) introduced that adults will learn faster if what they are studying has an immediate effect on their current situation in life.

The participants for the study consisted of students 50 years old and older. Studies including adult learners may advance the current knowledge of andragogy and related concepts. Understanding concepts tied to student success like sense of community and self-efficacy can improve delivery models and retention efforts using the theory andragogy as a foundation.

Sense of Community

Sense of community can be defined as a concept that members have a feeling of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together (McMillan & Chavis, 1986). Sense of community theories and other community studies have long been subjects of interest to researchers, social organizations, education, and the workplace (Lampinen et al., 2017). The Sense of Community Index II used for this study is based on the work of McMillan & Chavis (1986).

Sense of community has been linked with commitment to work and student well-being (Capone et al., 2018; Lampinen et al., 2017). Employees are more dedicated to their employer and students are more focused on academic achievement when they feel a positive sense of community with their prospective organizations. People are more likely to repeat business with organizations they share a personal connection and relationship. As a result, marketing departments and companies are also using the sense of community theory to create a psychological sense of brand with proven results (Swimberghe, Darrat, Beal, & Astakhova, 2018).

An article by Haar (2018) described sense of community as a feeling that members have of belonging, a feeling that members matter to one another and the group, and a shared faith that members' needs will be met through their commitment to being together. This description

directly corresponds with the four foundational elements that make up a sense of community identified by McMillan and Chavis (1986): needs fulfillment, group membership, influence, and shared emotional connection. Zhang et al. (2016) described the four elements as a member's needs will be met by their community, a feeling of belonging, reciprocal mattering between members and community, and a sense of attachment and bonding among community.

The study looked for a relationship between sense of community and self-efficacy for adults 50 years old and older. Finding a significant relationship between self-efficacy and sense of community would add to the existing knowledge on the sense of community theory. The concept of academic sense of community will benefit from gaining further understanding of related concepts.

Self-Efficacy

Self-efficacy was first introduced by Stanford University Psychologist Albert Bandura as the center of his social cognitive theory. Self-efficacy was defined to be beliefs that individuals have about their capacities in a given situation (Bandura, 1989). Bandura (1977) viewed people as self-organizing, proactive, self-reflective, and self-regulating as times change. Bandura (1997) proposed that regardless of past or current environment, self-efficacy can increase. This assessment is like Downing's (2017) assessment of emotional intelligence in that emotional intelligence is also able to be exercised and strengthened regardless of a person's past, current environment, and actual intelligence level.

The concept of self-efficacy has been researched and applied throughout multiple disciplines and industries. The academic industry focuses on student-self efficacy in hopes to raise retention rates. Similar is true for career self-efficacy, where companies and organizations

look to new methods on improving employee self-efficacy to improve retention, performance, and quality.

The understanding and application of self-efficacy is rooted in psychological self-efficacy. Bandura (2008) expressed self-efficacy can be divided into four categories: cognitive, motivational, emotional, and decisional. The cognitive component to self-efficacy is related to thinking optimistically or pessimistically and how this influences functioning (Bandura, 2008). It is suggested that by merely believing actions have an impact on experience and environment allows for a self-sustaining optimistic view where something can be done to affect the outcome of any situation (Bandura, 2008).

The motivational component of self-efficacy is based on the interpretation of opportunities and obstacles (Bandura, 2008). Downing (2017) suggested motivation is a result of one's value and expectations of a given situation. Simply lacking value or having low expectations can have a significant impact on motivation (Downing, 2017). Bandura (2008) believed it is easy to become victim to believing effort is futile in the face of obstacles and result in giving up altogether. Self-determined motivation can be achieved by attempting to discover what is required to reach a goal instead of whether the goal can be reached (Bandura, 2008).

The emotional component of self-efficacy falls right into place in the psychological aspect of the concept. A high sense of self-efficacy is related to being in control of one's physiological state (Bandura, 1977). Control of physiological state relates to a higher sense of emotional intelligence (Downing, 2017).

The decisional component of self-efficacy means there is a choice when it comes to how people experience and respond to situations (Bandura, 2008). A higher sense of self-efficacy is related to feeling more in control of situations. Downing (2017) believed people are in control of

the outcomes of their lives are a result of their choices. Bandura (2008) took this concept further with self-efficacy in that people must believe in themselves to ensure the most positive outcome and outlook of any situation.

The study looked for a relationship between self-efficacy and sense of community for students 50 years old and older. Finding a relationship between sense of community and self-efficacy may lead to further understanding of the role of community on self-efficacy. Furthering the understanding of academic self-efficacy could have a positive effect on retention efforts.

Related Literature

Sense of Community

Demographic and socioeconomic factors of sense of community. Demographics (age, gender, education level, and socioeconomic level) plays a significant role in a person's sense of community. A study by Moreno-Jimenez, Vallejo, and Ríos (2017) suggested females with a university education, from an upper social class, and with higher incomes participate more in their communities than those who register lower levels for these variables. Compared with older men, older women participated in community activities more frequently, spent more time in their community, and had closer social connections with other community members (Zhang et al., 2016). Older adults participate more at the community and socio-political level than younger people (Moreno-Jimenez et al., 2017). Employed persons with university studies and higher income participate more socio-politically (Moreno-Jimenez et al., 2017). A greater sense of community is found in senior citizens, people who are in a relationship, have children, have a lower level of education, are members of a higher social class, and are homeowners (Moreno-Jimenez et al., 2017).

Sense of community in the workplace. Previous work-related studies linked sense of community with commitment to work, to the workplace, to the organization, to co-workers, and to the profession (Lampinen et al., 2017). Employers actively invested in employee retention focus on building a positive sense of community among their employees. Company outings, conferences, community service projects, are examples of functions and activities meant to build a sense of community. These types of activities are especially important for organizations with employees who work remotely.

The ability to work remotely is a growing trend for many companies. Advances in technology and the e-commerce also allow for more individuals to work for themselves without the need for a business location. Many of those working remotely often feel increasingly isolated and socially adrift. To address this challenge, many independent workers are choosing to work in shared spaces where individuals do their own work but in the presence of others with the express purpose of increasing sense of community in the workplace (Garrett, Spreitzer, & Bacevice, 2017).

Academic sense of community. Sense of community in education describes the quality of the relationships between students and their classroom in terms of belonging, perceived influence, emotional connectedness, and satisfaction of needs (Capone et al., 2018; Phirangee & Malec, 2017). Numerous studies found the role of classroom sense of community to be a critical aspect for the development of students' psychosocial well-being and classroom collective efficacy beliefs (Capone et al., 2018; Chukwuorji et al., 2018). Collective efficacy refers to the belief of the ability to achieve a common goal with other group members (Bandura, 1997). Furthermore, sense of community in education has also been proven to directly predict students' social skills, academic engagement, achievement, interactivity, and retention (Chukwuorji et al.,

2018; Haar, 2017; & Prati et al., 2018). Successful educators understand active and participative inclusion in groups and communities which is essential for the construction of social identity (Chukwuorji et al., 2018).

Higher education institutions focus on fostering a strong sense of community in online courses to circumvent the high dropout rates attributed to feelings of isolation and disconnection among students due to their physical separation (Phirangee & Malec, 2017). A study by Jiang (2017) suggests assigning roles to students for online projects designed to encourage students to work interdependently. Factors shown to foster sense of community in students include the instructor focusing and directing discussions, encouraging open expression of opinions, responding to communications and feedback in a timely way, and giving the opportunity to build relationships (Haar, 2017). As described, numerous studies find that sense of community can positively affect student success. However, the mechanisms behind the potential benefits of educational sense of community have not been studied in detail (Prati et al., 2018).

Ways to increase sense of community. Individuals have an innate need to belong to social groups and create positive interpersonal connections with others (Swimberghe et al., 2018). Socialization creates the opportunity to increase sense of community. Downing (2017) recommended making wise choices to form connections to create more meaningful relationships. Supportive relationships provide buffers against threats and contribute to reinforce sense of belonging to class (Capone et al., 2018).

Larson and DeClaire (2017) reported that people generally seek more meaning, fulfillment, and purpose in their lives as they grow older. Seniors also desire stronger relationships with friends and family (Atkins, 2017). Seniors in isolation are more vulnerable to feeling lonely, having poorer physical health, psychological well-being, self-esteem, and lesser

social support; they adopt lesser health-promoting behaviors and are less likely to use preventive care services (Capone et al., 2018). Seniors may benefit from personalized interventions aimed at enhancing resilience factors on individual, partner, and community levels to improve life satisfaction (Zhang et al., 2016). Programs and organized activities focused on fulfilling needs for older adults are suggested to help improve their emotional connections with others (Atkins, 2017; Zhang, 2018).

Sense of community and senior citizens. Senior citizens have a strong need for a positive sense of community. Encouraging senior adults to engage in social activity in later life could enhance both psychological and physical wellbeing and may result in living longer and healthier (Somrongthong et al., 2017). Public policy, federal and state programs, and a health care system designed for seniors to be able to age actively within their overall society benefit individuals, local communities, and society (Atkins, 2017). The demands and financial costs associated with seniors living in specialized communities can be too much for many individuals.

Senior citizens are using technology to create a positive sense of community. For example, Facebook reported that senior citizens are the fastest-growing demographic (Vacek & Rybenska, 2017). Consumer marketing targets senior consumers by appealing to their community-oriented tendencies (Swimberghe et al., 2018). Academic institutions are using sense of community theory to help older adult students develop connections and a stronger sense of community with fellow students and instructors, providing them with informal social support (Somrongthong et al., 2017). The known benefits and desire for seniors to be community-oriented is a concept various industries are taking advantage of.

Self-Efficacy

Demographic and socioeconomic factors of self-efficacy. Demographic and socioeconomic factors play a significant role in a person's sense of self-efficacy. Males tended to possess a higher level of self-efficacy than females in two independent studies (Hur, 2017; Imus et al., 2017). Adults with spouses showed a higher level of self-directed social efficacy than those without a spouse (Hur, 2017). Well-educated adults exhibited a higher level of self-efficacy than poorly educated ones (Hur, 2017). Older adults' self-efficacy is lower than younger people and decreases with age (Hur, 2017). The influence of demographic factors on older adults' self-efficacy was more likely to be greater than that of socioeconomic factors (Hur, 2017).

Self-efficacy provides people the ability to make positive changes to their living standards and lifestyles (Callander & Shofield, 2017). An area of concern is a trend for people in poverty who have a poor sense of self-efficacy. A person with a low sense of self-efficacy is less likely to make a positive change even if they knew the potential benefit (Callander & Shofield, 2017). People with a lower educational level and a lack of employment show a lower level of self-efficacy (Hur, 2017). Understanding concepts like sense of community that may positively relate to self-efficacy may help those facing lower levels of income and education transition into a better situation.

Self-efficacy in the workplace. Researchers and employers focused on performance management are particularly interested in the concept of self-efficacy. Self-efficacy represents a fundamental component of self-regulation and plays a motivational role (Bandura, 1997). Miraglia, Alessandri, and Borgogni (2015) report the self-regulation and motivational aspects of self-efficacy allow people to activate the cognitive resources and actions necessary to achieve

targeted performance, to assure sufficient effort, and to persevere in the face of obstacles, thereby producing successful outcomes. These are a few of the traits most organizations would come to expect from quality employees and a culture that breeds success. Self-efficacy is positively related to goal setting, control of anxiety and stress, effective analytical strategies, and performance (Bandura, 1997; Miraglia et al., 2015). De Clercq, Haq, and Azeem (2018) found an important reason employees' self-efficacy enhances their job performance is that they experience less anxiety while undertaking their daily job tasks.

During the last two decades, researchers and practitioners interested in performance management have debated the aspects of stability and variability of job performance (Miraglia et al., 2015). Employers focus on self-efficacy to achieve a high level of employee retention, performance, and quality of work. The study by De Clercq et al. (2018) found an important reason that employees' self-efficacy enhances their job performance is that they experience less anxiety while undertaking their daily job tasks. Studies show the probability of employees ability to meet their job requirements depend on the resources embedded in their work environment, their personal characteristics, as well as their self-efficacy (Miraglia et al., 2015).

Academic self-efficacy. Self-efficacy theory is utilized by the education industry to improve graduation and retention rates along with increasing student academic achievement (Bowering et al., 2017). Self-efficacy has been well-established as a strong predictor of motivation, learning, and academic performance (Imus et al., 2017). The way students perceive self-efficacy varies according to their social skills and emotional intelligence (Salavera, Usan, Jarie, 2017). Many universities and colleges have responded to the importance of a high sense of academic sense of community for students by offering student success courses. Student success courses are designed to focus on improving social skills, emotional intelligence, relationships,

and decision-making abilities (Bowering et al., 2017; Downing, 2017). Educators have become more aware of applied teaching techniques that encourage intrinsic motivation. A study by Bowering et al. (2017) determined college instructors report that students with an intrinsic motivational orientation are more likely to attend to instruction, actively participate in discussion, and experience self-efficacy for learning.

Ways to increase self-efficacy. Like Downing's (2017) concept of emotional intelligence, Bandura (2008) proposed that self-efficacy is a trait every person, regardless of past or current environment, can exercise and strengthen. Self-efficacy can be restored and enhanced by therapeutic treatment and public policies aimed at the improvement of socioeconomic status (Hur, 2017). One of the leading methods towards building self-efficacy is through an individual's experience of performance success (Talsma et al., 2018). This can be accomplished by setting and completing appropriate and realistic goals often (Downing, 2017).

Perception of past performance affects the perception of self-efficacy (Callander & Shofield, 2017). Mastery experience, experiencing the results of self-efficacy first hand, is one of four conceptualized sources of self-efficacy beliefs, along with vicarious experience, social persuasion, and emotional physiological arousal (Bandura, 1997, Talsma et al., 2018). Research shows that of these four, mastery experience is the strongest predictor of self-efficacy (Talsma et al., 2018).

Older adults' self-efficacy decreases with age, and thus self-efficacy intervention techniques that are effective for younger adults may not be effective for older adults (Hur, 2017). Hur (2017) suggested that older adults could improve inward social self-efficacy through the activities of learning from others, putting themselves in social situations, and volunteering to help people around them and other various relationship-oriented activities.

Self-efficacy and senior citizens. Seniors benefit from a higher sense of self-efficacy, much like those of an earlier age. Self-efficacy has numerous benefits for active aging, including giving people the ability to make positive changes in their living standards and lifestyles (Callander & Schofield, 2017). Seniors who believe that they can perform well on a task do better than those who think they will perform poorly (Hur, 2017). Older adults with stronger self-efficacy beliefs also play an active role within their families and communities than those with weaker ones (Hur, 2017). The effects of self-efficacy for seniors may contribute to physical health, as self-efficacy has been reported to be a strong predictor of exercise adoption for older adults (Helmes & Klinger, 2017). Self-efficacy has also been proven to be predictors of transportation, financial skills, communication abilities, and anxiety levels (Helmes & Klinger, 2017). Education and employment variables showed a positive association with older adults' sense of interactive social self-efficacy (Hur, 2017). Older adults with a higher education level and those who were engaged in part-time or full-time employment showed a higher level of interactive social self-efficacy (Hur, 2017).

A Growing Senior Population

Global average life expectancy continues to rise mainly because of advances in modern medicine and technology, demographic transitions, cultural changes, and shifts in the global political economy (Kojola & Moen, 2016; Mann, Raphael, Anthony, & Nevitt, 2017). The growing senior population presents both challenges and opportunities. The current generation of senior citizens will have the highest educational attainment, better quality of life, live longer lives, and greater financial resources than any previous generation (Atkins, 2017; Kojola & Moen, 2016). Retirees will also be faced with much greater disparities within their ranks concerning income, wealth, and health (Callander & Schofield, 2017).

While life expectancy continues to increase globally, healthy life expectancy, an estimate of how many years people might be expected to live in a healthy state, does not improve at the same rate (Mestheneos & Withnall, 2016). Healthy life expectancy may not match the global population rate in its upward trend, but senior citizens are healthier than were previous cohorts (Clarfield, 2018). Clarfield (2018) suggested that instances of lower than average life expectancy and healthy life expectancy are largely due to treatable conditions such as drug and alcohol abuse, suicide, and chronic liver disease.

The increase in senior population also means there will be many more elders who are medically, financially, and socially vulnerable (Callander & Schofield, 2017). The fundamental social challenge of an aging population lies in the efforts to sustain the government programs that provide economic security in old age. These programs are meant to ensure promised benefits are delivered and restore public confidence for younger generations in these programs' sustainability (Atkins, 2017). The strain of health and social services on the government and public health system will be a monumental challenge to prepare for.

Seniors Living in Community

Aging in place. A major life decision people eventually face is where and how they would prefer to live as they age. Seniors prefer to live in their home or reside with other family members as they age (Campbell, 2016). In fact, Clarfield (2017) reported a decrease in the incidence of admission to geriatric long-term-care institutions over several decades in 12 countries. The decrease in admission to geriatric long-term-care institutions corresponds with the concept of aging in place. Aging in place refers to the ability to live in one's own home and community safely, independently, and comfortably regardless of age, income, or ability level (Sixsmith, Fang, Woolrych, Canham, Battersby & Sixsmith, 2017). For older adults, aging in

place means having a sense of attachment to and belonging in their community (Hutchinson, & Gallant, 2016). Aging in place is correlated with maintaining a sense of security, familiarity, identity, and autonomy (Hutchinson, & Gallant, 2016).

The associated benefits of being able to age at home and community safely, independently, and comfortably regardless of age, income, or ability level have been well documented, but this does not apply to those who fall out of this convenient situation. Older adults in poor health or poverty may need to make lifestyle changes to improve their living standards to consider aging in place (Callander & Schofield, 2017). Otherwise, support from the community may be required for older adults deemed unable to age safely in place. The support from the community may help older adults accept that their dwellings may be physically hazardous places and financially stressful to maintain. These older adults may be in unsafe neighborhoods with limited public transportation access to their basic shopping needs, and they may be socially isolated and not receiving adequate healthcare or personal assistance (Golant, 2015).

Retirement communities. Specialized communities have been developed, offering a variety of social and health care services to meet older adults' needs and preferences (Ayalon & Gum, 2019). These communities typically offer one or more of the following levels of care to their resident: independent living, assisted living, and nursing care (Campbell, 2016). Communities that offer all three levels of care are referred to as continuing care retirement communities. Although this living arrangement is available to a select segment of the population due to the increased cost, the number of continuing care retirement communities in the United States has increased from 700 in 1986 to 1861 in 2010 (Ayalon & Gum, 2019).

The reason people choose to retire in an age-based community vary but studies suggest three main purposes. The first are often couples who are in good health and financially stable who would like to improve their lifestyle by relocating to a continuing care retirement community in a better climate, with extra amenities, lower cost of living, and the ability to travel while their home is managed by the community (Ayalon & Gum, 2019). The second and third reasons people may relocate to a retirement community are health-related and associated with the ability to care for themselves independently. Assisted living care is often the choice for people who are faced with impairments in instrumental activities of daily living in the absence of a family member who could have otherwise compensated for this functional loss (Ayalon & Gum, 2019). This type of relocation will often involve bringing aging parents and adult children geographically closer to one another (Ayalon & Gum, 2019). The third purpose involves relocating to a nursing care facility following the inability of the family to provide informal care (Ayalon & Gum, 2019). As resident health and abilities decline, relocation is required to obtain the next level of care (Campbell, 2016).

Previous research indicated the potential for retirement to be harmful regardless of aging in place or in a retirement community (Campbell, 2016; Fabrizio & Franco, 2017). This may happen if a lack of purpose in the retiree's life affects individual well-being, mental health, and cognitive abilities (Fabrizio & Franco, 2017). Other significant contributors to the adverse effects associated with retirement are social relationships being severed because of the relocation to a retirement community.

Retirement communities are designed to support the physical and social needs of their residents by encouraging quality social interaction. Quality social interaction has been shown to strongly impact sense of satisfaction later in life (Campbell, 2016). Research has shown contact

with friends and family outside or their retirement facility does not significantly impact life satisfaction, but positive social relationships inside their retirement community are associated with significantly higher life satisfaction (Campbell, 2016).

Retirement and Third Age

The perception of what it means to retire changes as life expectancy is extended, health outcomes improve, and state retirement schemes and pension policies evolve (Birkett, Carmichael, & Duberley, 2017). Retirement is a process in an adult's life that may involve several employment passages potentially spanning several years as they transition from the career-building years to the frailty years of old age (Kojola & Moen, 2016; McDonough, Worts, Corna, McMunn, & Sacker, 2017). The concept of "third age" represents the period following retirement in which people develop meaningful lifestyles that may include both paid and unpaid employment, education, and actively contributing to their community (Birkett et al., 2017; Kojola & Moen, 2016). Third age has been adopted as the modern perspective of retirement, which is different from the conventional view in which retirement consisted of full-time employment being replaced by full-time leisure (Birkett et al., 2017).

Third age can also be considered from a life course perspective that shifts the view of retirement as a single event to retirement as a process. Life course for people from birth through adulthood is commonly described by economic activities such as early life is spent in school, mid-life in work, and old age in retirement (Denier, Clouston, Richards, & Hofer, 2017). According to Denier et al. (2017), developmental research showed that most cognitive abilities develop along a similar path, expanding in early life, plateauing in mid-life, and beginning to decline as early as age 45. Researchers use the life course approach when studying senior

citizens because it draws attention to change over time and recognizes that life histories impact choices and actions later in life (Birkett et al., 2017).

The timing, methods, and reasons people retire do not follow a dominant pattern (Denier et al., 2017; Kojola & Moen, 2016). Kojola and Moen (2016) suggested people retire based on a diverse mix of pathways based on health, resources, social class, personal preferences, family roles, occupational identities, perceptions of retirement, as well as workplace and government policies. People's retirement transitions overwhelmingly occur outside the framework of Social Security eligibility ages in the United States or the conventional trajectory involving full-time work and withdrawal around age 65 (Kojola & Moen, 2016; McDonough et al., 2017).

The adjustment to retirement is a crucial life course event that might affect successful aging, particularly in later life (Wetzel & Huxhold, 2016). A study by Denier et al. (2017) examined the relationship between retirement and cognitive aging. They found that the reason people retire mattered for cognitive functioning across all cognitive domains studied (Denier et al., 2017). Lifestyle and social choices throughout retirement can influence cognitive functioning (Xiaoyan & Hong, 2018). Those who experience a reduction in intellectual and social stimulation following retirement may experience an acceleration of cognitive decline as they age (Xiaoyan & Hong, 2018).

Research indicates that retirement may also have a negative effect on retirees quality of life (Campbell, 2016; Fabrizio & Franco, 2017). The fundamental aspect of the aging process is cognitive decline among the older population (Xiaoyan & Hong, 2018). The adjustment to retirement might affect successful aging, particularly in later life (Wetzel & Huxhold, 2016). Fabrizio and Franco (2017) suggested a negative effect of retirement may happen if a lack of purpose in the retiree's life affects individual well-being, mental health, and cognitive abilities.

Research has shown that the negative effect of retirement becomes more significant as the number of years spent in retirement increases (Fabrizio & Franco, 2017). Denier et al. (2017) indicated that most of the decline associated with retirement occurs in the years directly following the labor market exit, and then plateaus at longer durations.

Wetzel and Huxhold (2016) determined people have unequal chances for successful aging in retirement as retirement involves adapting to new life changes. McDonough et al. (2017) indicate inconsistencies with academic research on the associations between leaving the work force and health. Retirement is a period of change that involves some decisions and events that create greater potential for vulnerability later in life such as financial resources, health, and social networks (Birkett et al., 2017).

Denier, Clouston, Richards, and Hofer (2017) suggested the workplace may support cognitive function by providing opportunities for social interaction, physical activity, or a structure to orient action. Seniors increasingly move in and out of employment, become self-employed, engage in volunteer work, bridge employment, all of which impact on what it means to be retired (Birkett et al., 2017). Bridge employment, or re-entry into the workforce by retirees, is a type of employment that bridges the gap between a career and entirely departing the job market (Mazumdar & Warren, 2018). McDonough et al. (2017) found that people who downshift to part-time work around age 65 were less likely than almost all other groups in their study to report poor health in their early 70s. Numerous studies find that flexible and part-time work along with flexible employment policies that meet their personal and family needs is important for seniors in the workplace (Kojola & Moen, 2016; McDonough et al., 2017).

Gender shapes how work in older age is related to career identities and finances (Kojola & Moen, 2016). McDonough et al. (2017) found men more often engaged in extended working,

especially on a full-time basis, while women were more likely to work part-time during their 50s and 60s or not at all. Research has shown aging may intensify gender inequalities around flexible work (Fan, 2017; Kojola & Moen, 2016). Women's educational and career pathways are more likely to be disrupted due to family-related life events, such as having young children (Fan, 2017). As a result, men often have better options than women who may want full-time work because they have not been able to work full-time earlier in their careers when they were caring for children (Kojola & Moen, 2016).

Lifelong Learning

Lifelong learning can simply be considered as continuing to participate in learning throughout adulthood (Jenkins & Mostafa, 2015). More specifically, lifelong learning is defined as the development and change of the efficacy in voluntary, professional, or personal areas at every stage of life (Jenkins & Mostafa, 2015; Kabatsn & Yilmaz, 2018). Formal education is made available to adults through colleges and universities. Non-formal education and non-credit type learning are also available to adults through various organizations and higher education institutions (Narushima, Liu, & Diestelkamp, 2016). Lifelong learning includes as all the activities that enable individuals to improve their lives (Kabatsn & Yilmaz, 2018). Kabatsn and Yilmaz (2018) indicated that learning is not dependent on a place and time, but the learning process is active in every environment and time.

Lifelong learning can be characterized as a learning process in which people can renew knowledge and skills at every phase of life (Narushima et al., 2016). Professionals need to stay up to date of practice changes, new technology, new strategies, and workplace policies; therefore, professional development is a priority for employees to remain current (McMaster, Lopez, & Cleary, 2018).

Lifelong learning is an active process, which involves investing in continuing education; otherwise, people are at risk of knowledge and skills becoming redundant (McMaster, Lopez, & Cleary, 2018). This is especially important for older adults. Lifelong learning, along with formal education and literacy, is an important factor that facilitates participation, health, psychological well-being, and security as people grow older (Jenkins & Mostafa, 2015; Narushima et al., 2016).

Lifelong learning is a responsibility shared by everyone in the context of society, culture, and economy (Kabatasn & Yilmaz, 2018). Since the late 1990s, the idea of lifelong learning has been taken up with some enthusiasm by policy makers at the national and the supranational level (Jenkins & Mostafa, 2015). Both international and national agencies, governments, and educational institutions have included the concept of lifelong learning to their educational policies in order to ensure to train individuals who will meet changing social needs (Findsen & Formosa, 2016; Kabatasn & Yilmaz, 2018). The World Health Organization (2020) stated that education and learning should be available throughout adults' lives, including providing older people with opportunities to develop new skills (Jenkins & Mostafa, 2015; World Health Organization; 2020). Governments and policy makers realize that it is only by encouraging people to commit to the idea of education both life-wide and lifelong that the goals of economic advancement, social emancipation, and personal growth will be attained (Findsen & Formosa, 2016).

Senior Citizen Students

The increase in average life expectancy allows people to remain in their careers past the age of retirement (Callander & Schofield, 2017). Continued education for a career past the age of 50 is becoming more common (Findsen, 2017). More adults are returning to college later in life to further a degree, complete short-term programs, and gain industry-based certifications than any other time in history (Talmage et al., 2016).

Participation in lifelong learning (both formal and non-formal) drastically decreases with age despite the increase in the number of seniors who enter higher learning courses (Narushima et al., 2016). A study by Talmage et al. (2016) recommended universities adapt to fully address the challenges and barriers faced by older adults through the creation of appropriate opportunities for learning later in life. Talmage et al. (2016) detail a set of principles that incorporate the interests of older adults into a university's core teaching, research, and engagement activities. The importance of building a sense of community among older adults with their perspective institution is a key principle for institutions aiming to meet the demands of students of all ages.

Arizona State University's Osher Lifelong Learning Institute (OLLI) incorporated these principles in their mission to connect adults aged 50 years old and older to the intellectual, social and cultural environments of the university (Talmage et al., 2016). OLLI also adjusted the traditional pedagogy delivery methods to an andragogical-based communal phenomenon rather than a teacher-led methodology. OLLI's enrollment tripled following the adjusted delivery model and principles (Talmage et al., 2016).

The literature on the benefits of lifelong learning is scant compared to the research on benefits for young and mid-life adult students (Talmage et al., 2016; Withnall, 2016). The

research on the benefits of learning later in life can only be traced back to around 40 years (Withnall, 2016). Mestheneos and Withnall (2016) indicated that supportive data from large scale quantitative studies investigating the effects later in life of learning on health in the general older population remains limited. Research on concepts associated with being a successful student later in life promotes education as an important contributor towards active aging (Wongsawat, 2017).

Research on the positive link between higher levels of education and better health is well known (Findsen, 2017; Mestheneos & Withnall, 2016). Learning later in life plays an important role in a healthy life expectancy (Narushima et al., 2016). Older adults often enjoy learning because it helps them to be receptive to new ideas, to improve understanding, and maintain a positive outlook (Jenkins & Mostafa, 2015). Lifelong learning for aging citizens should be supported by appropriate educational policies and programs to contribute to the active aging process (Wals & Benovot, 2017).

A study by Narushima et al. (2016) found that adults 60 years old and older experienced a higher sense of well-being when enrolled in one course continuously instead of many courses at one time. Narushima et al. (2016) concluded that what significantly influences the quality of life among older adults is not the amount, but the continuation of learning and the maintenance of self-efficacy. Research on adults learning later in life will contribute towards understanding how and why continuous participation in lifelong learning matters so much in later life (Narushima et al., 2016).

Education is moving towards an online format. Today's generation of seniors often has a strained relationship with technology. The frequency of use and the efficiency with which seniors use technology is not on par with younger generations. Most hardware and software are

not designed in a way to accommodate the needs of those lacking experience and familiarity with the basic concepts of the use of technology. The growth of seniors entering higher education courses, along with the trend of online education, creates a gap for these students. Understanding sense of community and self-efficacy can help in allowing seniors to adapt effectively. Schools and education programs would benefit from retaining older adult students when an effort is made towards accommodating the needs of senior citizen students.

Well-being

The benefits of self-efficacy and sense of community are linked to a positive sense of well-being (Prati et al., 2018; Talsma et al., 2018). Capone et al. (2018) advocated the priority of social, group, and community interventions for the promotion of individual well-being. Larson and DeClaire (2017) recommended building reserves of well-being mentally, physically, and socially for a long, fulfilling road ahead. Knowledge is the most important factor attributed to improving the level of well-being because awareness helps enhance a person's potential to adapt to the rapidly changing society (Downing, 2017).

To have knowledge, a person needs to have education. Education is a critical tool for creating an opportunity for well-being (Wongsawat, 2017). Classroom collective efficacy and sense of community are important factors in students' well-being (Capone et al., 2018; Prati et al., 2018). Well-being and its connection to learning and school context are considered central to the mission of education (Salavera et al., 2017). Students are more likely to experience greater well-being when nested in a classroom that meets their psychological, social, and resource needs (Capone et al., 2018). A study by Jenkins and Mostafa (2015) found an association between informal learning and wellbeing. However, they were unable to find a significant association between wellbeing and formal education or formal training courses (Jenkins & Mostafa, 2015).

People who feel good about home and neighborhood will have more significant emotional connections, feel higher levels of membership, influence, and fulfillment of needs, all of which have an impact on well-being (Moreno-Jimenez et al., 2017). Life satisfaction is a central aspect of well-being and an important indicator of successful aging (Atkins, 2017). People's sense of their positions, resources, and how they are generally doing influences their subsequent actions (Birkett et al., 2017). It is important to understand aspects associated with positive mental health into late adulthood in response to the increasing in global life expectancy (Birkett et al., 2017; Xiaoyan & Hong, 2018).

Active Aging

Active aging involves the process of optimizing opportunities for health, work, social participation, and security to enhance quality of life throughout life (Hur, 2017). Active aging can be linked to a higher sense of community. The study by Zhang et al. (2016) implied that aging in community might be an effective way to improve the aging process. It is important for the community and society to help people adapt successfully as they age and maintain a high level of life satisfaction in later life (Zhang, 2018). Jacobsen (2017) indicated an emphasis on solidarity between generations now appears to be on families taking responsibility for the care of their parents as they age rather than the contribution of older people towards their children and grandchildren.

A significant factor attributed to active aging is to simply engage in productive activities related to working life, voluntary work, or sports and physical training (Jacobsen, 2017). Seniors build a positive sense of community when they contribute toward interdependent activities and completing goals as a group. Knowles (1980) suggested the stimulation by applying skills in the workplace could be a result of how adults apply what they learn. Adults are more involved in

completing tasks if what they are undertaking has an immediate effect on their current situation in life (Knowles, 1980).

Public policy, federal and state programs, and a health care system based on senior wellness are necessary for seniors to be able to age actively within their overall society (Atkins, 2017). Policy recommendations for senior citizens have focused on the concept of active aging incorporating health, participation and security with a major aspect of participation being lifelong learning that would ensure that people are supported by appropriate educational policies and programs as they age (Mestheneos & Withnall, 2016). Legislature and politics are necessary to save programs like Social Security and Medicare that are at risk due to the rise in the senior population.

Larson and DeClaire's (2017) book on active aging advocated for seniors to take accountability for health and happiness by preventing illness and taking preventative measures against chronic conditions. One method towards active-aging involves acceptance of change that comes with age (Larson & DeClaire, 2017). Being unrealistic may lead to avoiding necessary medical care and preventative health measures. This can be a challenge for many seniors as people have a general desire to remain independent as long as possible (Atkins, 2017). Knowles (1980) corroborated Bandura's theory in stating:

Adults have a self-concept of being responsible for their own lives . . . they develop a deep psychological need to be seen by others and treated by others as being capable of self-direction. Adults become ready to learn those things they need to know or to cope effectively with their real-life situations. (p. 83-84)

Quality of Life for Senior Citizens

Academic researchers study areas that can further improve the quality of life for people as they age to address the growing number of senior citizens (Mann et al., 2017). Quality of life is subjective to a person's perspective of quality (Salavera et al., 2017). Quality of life is based on the value a person has for the various aspects related to personal living (Wongsawat, 2017).

Seniors desire an independent living and can sustain this lifestyle longer depending on the choices they make (Atkins, 2017). The ability to perform daily routine activities affects the overall quality of life of older adults (Wongsawat, 2017). Staying productive and living an active lifestyle sets the foundation for further healthy choices leading to a better quality of life.

Atkins (2017) reported educational status, having personal money in old age, and gender as major predictors of quality of life for seniors. Marital status and occupation had no relationship between the quality of life of the elderly (Wongsawat, 2017). The growing senior population will have higher levels of education, better health, and greater financial resources than any previous generations (Atkins, 2017). Today's retirees are expected to increase their quality of life due to the increase in these foundations of successful lifestyle.

Risks Associated with Aging

Living a long life comes along with known risks to health. Research on the aging process is important to understanding how to best prevent and respond to known risks. The most common type of risk associated with aging is related to physical and mental changes as the body ages. Training for mental and physical health professionals, along with advances to rehabilitation services could benefit from research on concepts associated with improving mental health.

Cultural and generational difference between the aging population and younger generations present other types of risks often overlooked in society. For example, senior citizens'

general gap in understanding with technology puts them at risk of not completing education. A review of the formal educational backgrounds and qualifications of older generations in the European Union indicated that a large majority had limited access to formal education in their youth that continued throughout their lives, with few participating in lifelong learning (Mestheneos & Withnall, 2016). Studies focused on concepts associated with positive lifelong learning may lead to limiting the hurdles that stand between seniors and lifelong learning opportunities.

Aging comes with increased services and support for people who wish to remain in their community as they age. This can be costly financially and timewise for aging individuals and those who support them. The demands associated with an aging population create a demand for innovation in products and services, which could drive economic growth. Studies focused on finding relationships between concepts proven to increase quality of life for senior citizen as they age could reduce the pressure of costly retirement and healthcare programs (Atkins, 2017).

Older adults are more at risk to become a victim of consumer fraud than any other type of crime (Judges, Gallant, Yang, & Lee, 2017). Seniors' gap in understanding technology combined with the advancements in technology used by professional scammers is attributed to the rise in fraud vulnerabilities for seniors. Judges et al. (2017) report only a handful of studies have examined psychological factors contributing to fraud victimization for seniors. A study by Cross (2017) suggested education and spreading awareness of risk-management strategies towards disclosure of their personal details for senior citizens is required to reduce their inadvertent exposure to identity crime.

Summary

Demographic and socioeconomic factors play a significant role in a person's sense of community and self-efficacy (Imus et al., 2017; Zhang et al., 2016). The influence of demographic factors on older adults' self-efficacy was more likely to be greater than that of socioeconomic factors (Hur, 2017). People in relationships, employed persons with university-level education, and those with higher income and resources exhibited a higher level of sense of community and sense of self-efficacy in independent studies (Hur, 2017; Moreno-Jimenez et al., 2017). Senior citizens exhibited a lower sense of self-efficacy but a higher sense of community than younger cohorts in independent studies (Hur, 2017; Moreno-Jimenez et al., 2017).

A higher level of self-efficacy and sense of community has been attributed to higher levels of success in the workplace and academics (Chukwuorji et al., 2018; De Clercq et al., 2018; Miraglia et al., 2015). Seniors benefit from a higher sense of self-efficacy and positive sense of community and experience a greater sense of well-being. (Prati et al., 2018; Talsma et al., 2018). Knowledge is the most important factor attributed to improving the level of well-being because awareness helps enhance a person's potential to adapt to the rapidly changing society (Downing, 2017; Wongsawat, 2017).

Universities and learning institutions are traditionally geared towards provision for younger adults, thus limiting the number of studies that directly examine the effects of later-life learning on older adults (Narushima et al., 2016). Senior citizens are becoming more common as a non-traditional student in educational programs greatly due to improvements in the health, economic security, and longevity of the older population; an outgrowth of the adult and continuing education movement advocating the benefits of lifelong learning; and the contributions of gerontological researchers underscoring the value of intellectual stimulation as

fostering the individual's capacity to stay informed and engaged in society (Findsen & Formosa, 2016). Universities and learning institutions should prepare and adapt to the unique needs of the non-traditional senior citizen student (Talmage et al., 2016).

Seniors have lived the academic, career, financial ups and downs, social scenes that have shaped their sense of self-efficacy and sense of community (Helmes & Klinger, 2017; Zhang, 2018). Older adults' self-efficacy decreases with age, and thus self-efficacy intervention techniques that are effective for younger students may not be effective for older students (Hur, 2017). A senior citizen students' sense of community could be threatened if they feel isolated in their institution (Capone et al., 2018).

Although the advantages of sense of community and self-efficacy are well documented independently, there is a gap in the literature linking sense of community and self-efficacy for students. The literature on the benefits of later life learning is limited in the lifelong learning field compared to the research on benefits for younger adults (Jenkins & Wiggins, 2015; Withnall, 2016). Finally, the current study investigated the possibility of a relationship between sense of community and self-efficacy among senior citizen students.

CHAPTER THREE: METHODS

Overview

A correlational analysis was used to analyze the strength of the relationship between sense of community and self-efficacy for students 50 years old and older recently enrolled in a college-level course in this quantitative research study. Chapter three examines the methods and design of this study, research question and hypothesis, the participants and setting, procedures, and the data analysis of the research.

Design

The researcher used a quantitative, correlational design consisting one group and two instruments for this study. A correlational design was appropriate for this study as the purpose was to discover the relationship between variables using correlational statistics (Creswell, 2014; Gall, Gall, & Borg, 2007). Correlation is a bivariate exploration that assesses the strengths of connection between two variables and the direction of the relationship (Salkind, 2013). This design is frequently used and is considered a stable technique as the bivariate correlational statistic computed, r , has a small standard of error (Gall et al., 2007). The criterion variable for the study is self-efficacy. More specially, the research was based on a general sense of self-efficacy. Self-efficacy reflects confidence in the ability to exert control over self-motivation, personal behavior, and social environment (Bandura, 1997). The predictor variable in the study is sense of community. Sense of community is a feeling that members have belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together (McMillan, 1996). Sense of community was studied in the context of a learning environment as all subjects have recently taken a college course.

Research Question

RQ: Is there a relationship between sense of community and self-efficacy among senior citizen students?

Hypothesis

H₀: There is no relationship between sense of community, as measured by the Sense of Community Index II, and self-efficacy, as measured by the Generalized Self-Efficacy Scale, among senior citizen students.

Participants and Setting

For this study, the population included people 50 years of age and older recently enrolled in a college-level course. Participants were enrolled in at least one course in their state-wide community college since August of 2018. The Health and Retirement Study (HRS), sponsored by The National Institute on Aging, is a biennial survey of more than 20,000 Americans over age 50 conducted for the purpose of serving as a model for planning similar studies (Department of Health and Human Services, 2020). The English Longitudinal Study of Aging; the Survey of Health, Aging, and Retirement in Europe; the Mexican Health and Aging Study; and the Korean Longitudinal Study of Aging have all used the HRS model (Department of Health and Human Services, 2020). A recent study by Mestheneos and Withnall (2016) focused on making connections between aging, learning, and health defined their population as later life learners who are older and often described as 50 years old and older.

The participants were enrolled in a higher education program, typically consisting of entry-level college courses and industry certification-based courses across a variety of disciplines. A Midwestern statewide college agreed to participate in the study to gain insight regarding the effectiveness of their senior citizen-based programs.

The research utilized a convenience sampling technique based on the proximity of the researcher, consisting of adults living in a Midwestern state. The target population for the study included anyone who was 50 years old or older and recently enrolled in a college-level course. Demographic questions regarding gender and ethnicity were not collected for this survey since age and recent education status were the only demographic characteristics analyzed for this study. This sample comprised 100 participants 50 years old and older. Of the 100 respondents, 63 completed the survey, representing a 63% response rate. The 37 incomplete responses were deleted before data analysis.

Instrumentation

Two validated self-reporting questionnaire instruments were used for this study. The first instrument was the Sense of Community Index II (see Appendix A for instrument). The second instrument was the Generalized Self-Efficacy Scale (see Appendix B for instrument).

Sense of Community Index II

The Sense of Community Index II (SCI-2) was used to collect information regarding the predictor variable. The SCI-2 self-report survey is based on a sense of community theory presented by McMillan and Chavis (1986). The purpose of the SCI-2 is to measure sense of community as it relates to the four elements of the sense of community theory: reinforcement of needs membership, influence, and a shared emotional connection (McMillan & Chavis, 1986). The Association for the Study and Development of Community (ASDC) research team developed a revised version of the Sense of Community Index (SCI) called the SCI-2 to improve the SCI's psychometric properties and to incorporate advances in the study of a sense of community (Sense of Community, 2018). The SCI-2 has been used in an adult population previously (Abfalter, Zaglia, & Mueller, 2012).

The latest revision of the SCI-2 by ASDC was validated and used within a survey of 1,800 participants, and “the analysis of the SCI-2 showed that it is a reliable measure with a Chronbach’s alpha = .94. The subscales also proved to be reliable with coefficient alpha scores of .679 to .86” (Chavis, Lee, & Acosta, 2008). The validity of SCI-2 was determined by its relationship to life satisfaction .320 ($p < .01$ level, 2-tailed), civic and political participation .315 ($p < .01$ level, 2-tailed), and cultural and community participation .315 ($p < .01$ level, 2-tailed).

The instrument has 24 total questions covering all the attributes of a sense of community based on the original theory, subsequent research, and other advances in the field (Sense of Community, 2018). More specifically, a four-point Likert Scale was used on the SCI-2 form. The Likert Scale for this instrument follows: 0 = Not at All, 1 = Somewhat, 2 = Mostly, 3 = Completely. The raw scores for the questionnaire range from 0 - 72 with a low score of 0 and a high score of 72. A low score of 0 means the participant has a low sense of community. A high score of 72 means participants have a high sense of community. The items were scored using an online survey. Written permission for the SCI-2 was obtained for the purpose of this study (see Appendix C for written permission).

Generalized Self-Efficacy Scale

The Generalized Self-Efficacy Scale (GSE) was used to collect information regarding the criterion variable. The Generalized Self-Efficacy Scale (GSE) self-report survey is based on a self-efficacy theory developed by Ralf Schwarzer and Matthias Jerusalem in 1979 and later revised and adapted to 26 other languages by various co-authors (Schwarzer & Jerusalem, 2010). The theory is based on a person’s general belief in their ability to respond to and control environmental demands and challenges (Schwarzer, Mueller, & Greenglass, 1999). The survey has an estimated completion time of 5 - 10 minutes. The purpose of the GSE is to reflect the

strength of an individual's generalized self-efficacy belief (Schwarzer, 2014). The GSE has been used in an adult population previously (Bonsaksen et al., 2018; Chen & Starobin, 2017; Sofia et al., 2018).

In samples from 23 various nations, Cronbach's alphas ranged from .76 to .90, with the majority in the high .80s. The scale is unidimensional (Schwarzer & Jerusalem, 1995).

Schwarzer (2014) reported:

Concurrent validity has been established on the basis of appropriate correlations with other tests. Expected positive correlations have been found with measures of self-esteem (0.52), internal control beliefs (0.40) and optimism (0.49). Expected negative correlations have been obtained with general anxiety (-0.54), performance anxiety (-0.42), shyness (-0.58) and pessimism (-0.28).

Predictive validity was also assessed a year later with results for East German women migrants over a two-year period having self-efficacy correlated positively with measures of self-esteem (0.40) and optimism (0.56) while men had lower correlations (0.20 and 0.34 respectively) (Schwarzer, 2014).

The GSE is based on a ten-item, 4-point Likert Scale. The Likert Scale for this instrument follows: 1 = Not at All True, 2 = Barely True, 3 = Moderately True, 4 = Exactly True. The raw scores for the questionnaire range from 10-40 with a low score of 10 and a high score of 40. A low score of 10 means the participant has a low level of self-efficacy. A high score of 40 means participants have a high sense of self-efficacy. The items were scored using an online survey. Permission for the use of GSE does not require explicit permission to utilize the scale given that appropriate recognition of the source of the scale is included in the write-up of the study (Schwarzer, 2014).

Procedures

The researcher gained approval from the Institutional Review Board (IRB) before collecting data for the study (see Appendix D for IRB exemption). Permission from the participating college's IRB was obtained (see Appendix E for participating college's IRB exemption).

The two instruments were combined into SurveyMonkey®, an online survey and cloud-based data collection program. Participants were obtained using convenience sampling based on people who are 50 years old and older and recently enrolled in a college-level course.

The Academic Affairs Office sent an initial email to the participants, including the purpose of the study, instructions, link to the consent form, and a link to the surveys (See Appendix F for email sent to participants). Consent from the participants was obtained upon accessing the online survey and before they were able to proceed with the questionnaire (see Appendix G for consent form). After participants provided consent, they answered the questions from the two instruments. When enough surveys were completed, the survey link was closed, and data analysis began. All surveys were anonymous.

Once completed surveys were received, survey responses were exported to Microsoft Excel and then uploaded and analyzed using IBM Statistical Analysis Software Package (SPSS) software. The results were analyzed following the correlation data as well as the scoring methods of the survey evaluation tools. Surveys were stored securely, and subsequent descriptive statistics were then written.

Data Analysis

A Pearson's r correlation coefficient was used for this study. A correlation coefficient with a 95% confidence level is best to describe in mathematical terms the direction (positive or

negative) and degree (strength) of the relationship between two variables (Gall et al., 2007; Green & Salkind, 2014; Warner, 2013). A medium effect size of .7, an alpha of .05, and at least 66 participants were required to meet the criteria necessary to conduct the correlation (Gall et al., 2007).

Five assumptions were required to be met to run a Pearson's correlation (Laerd, 2020a; Warner, 2013). The first two assumptions of a Pearson's correlation relate to the study design and variables (Gall et al., 2007; Laerd, 2020a). The first assumption assumed the two variables were measured on a continuous scale (Laerd, 2020a). The variables were measured on the interval scale as the instruments lacked a true zero point, and the distance between any two points were the same (Gall et al., 2007). The second assumption assumed the two continuous variables were paired, which was met as each participant had a value for each variable (Laerd, 2020a).

The final three assumptions related to Pearson's correlation itself and was tested using IBM Statistical Analysis Software Package (SPSS) software (Gall et al., 2007; Warner, 2013). The third assumption of bivariate outlier was determined by visually inspecting unusual scores using a box plot (Warner, 2013). See Figure 1 for the box plot. Outliers found in Figure 1 were analyzed using parametric and nonparametric procedures and removed after they were determined too extreme as described in Chapter 4 (Warner, 2013).

The fourth assumption was tested using a scatter plot between the predictor variable, sense of community, and criterion variable, self-efficacy, to check for the assumption of linearity (Gall et al., 2007). See Figure 2 for the scatter plot analysis, which shows a linear relationship satisfying linearity (Warner, 2013). The fifth and final assumption was examined using a Kolmogorov-Smirnov test to check for the assumption of bivariate normal distribution (Howell, 2011; Warner, 2013). See Table 3 for the Kolmogorov-Smirnov Test of Normality.

CHAPTER FOUR: FINDINGS

Overview

This chapter will share the results of this study investigating the relationship between sense of community and self-efficacy among senior citizens. One hundred students, 50 years of age and older, answered questions from two instruments in one survey. Descriptive statistics for the SCI-2 and GSE for all senior citizen students are provided. Finally, the correlation data for each group is provided.

Research Question

RQ: Is there a relationship between sense of community and self-efficacy among senior citizen students?

Null Hypothesis

H₀: There is no relationship between sense of community and self-efficacy among senior citizen students.

Descriptive Statistics

Initially, the total sample included 100 college-level participants 50 years of age and older. Of the 100 respondents, 63 completed the survey, representing a 63% response rate. The thirty-seven incomplete responses were deleted. Two results were identified as outliers during assumption test analyses. Thus, the following research data and statistical results are derived from the sample ($n = 61$).

The collected data were the responses to the SCI-2 and the GSE. The mean and standard deviation for the predictor variable, sense of community, and the criterion variable, self-efficacy, are displayed in Table 1. Scores on the SCI-2 range from 0 -72, with 0 representing a low sense of community and 72 representing a high sense of community. The mean score for the SCI-2 was

49.43, indicating that overall, the student's sense of community was on the higher end of the scale. Scores on the GSE range from 10 -40: A low score of 10 means the participant has a low level of self-efficacy. A high score of 40 means participants has a high sense of self-efficacy. The mean score for the GSE was 34.11, indicating that overall, the student's self-efficacy was on the higher end of the scale.

Table 1

Descriptive Statistics

	<i>n</i>	Minimum	Maximum	Mean	Std. Deviation
Sense of Community	61	20.00	72.00	49.43	14.91
General Self-Efficacy	61	20.00	40.00	34.11	4.48
Valid <i>n</i> (listwise)	61				

Results

Data Screening

The researcher reviewed all collected data prior to and after inputting it into SPSS. A total of 100 participants completed the survey; however, thirty-seven participants did not fully answer all questions. As a result, their submission data was not included in the study to avoid Type I or Type II errors (Warner, 2013).

Assumption Tests

The assumption of bivariate outliers, assumption of linearity, and assumption of bivariate normal distribution related to Pearson's correlation and was tested using SPSS (Gall et al., 2007; Warner, 2013). Unusual scores were visually inspected using a box plot to test for the assumptions of bivariate outliers. Outliers were analyzed using parametric and nonparametric

procedures to determine if they were extreme enough to be removed (Warner, 2013). See Figure 1 for the box plot.

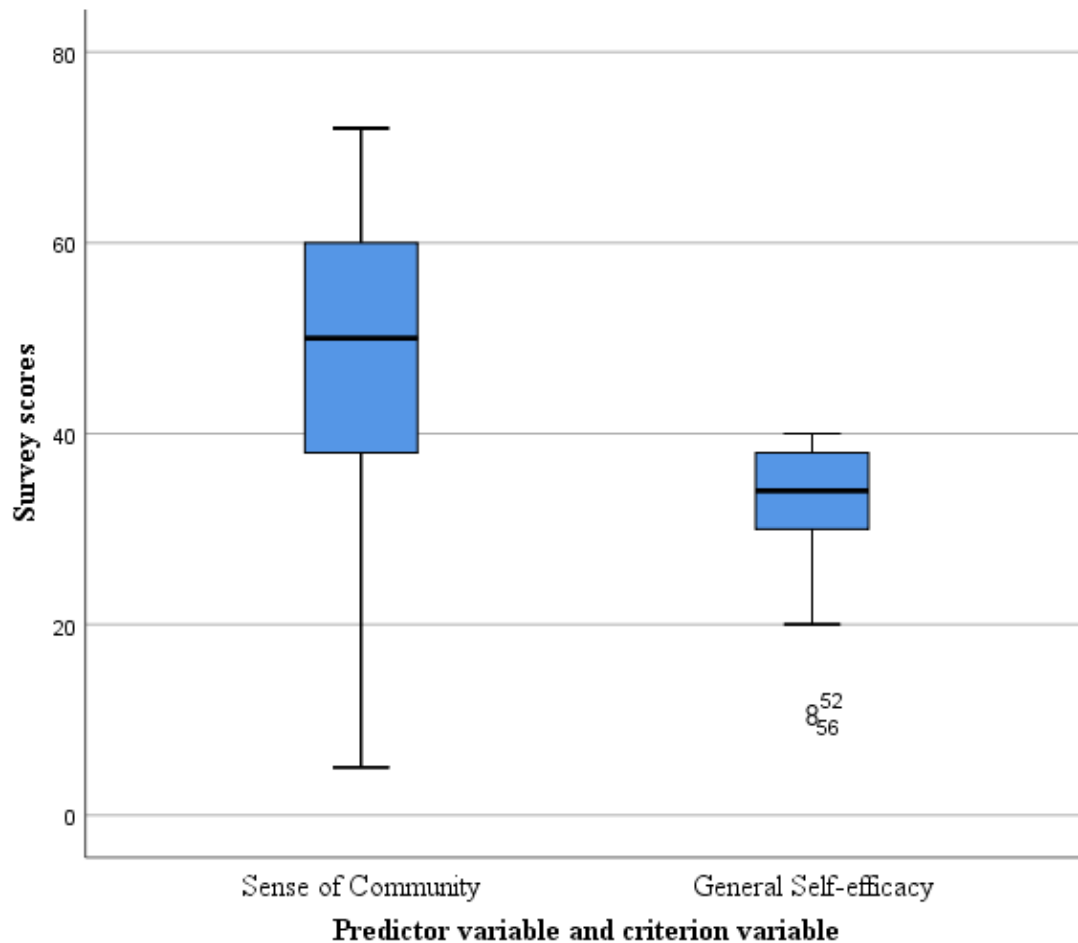


Figure 1. Box plot of SCI-2 and GSE scores with two outliers for GSE.

Two outliers were found in Figure 1 for general self-efficacy. The decision to eliminate outliers from a research study can be problematic and they should only be eliminated based on analyzing the data using both parametric and nonparametric statistics (Warner, 2013). The presence of a few outliers in a sample can distort a measure of central tendency and lead to misinterpretations (Gall et al., 2007). The researcher used the box plot as a nonparametric exploratory procedure to visually identify the outliers.

The researcher then analyzed the outliers using a parametric procedure that examined the z -scores of skewness and kurtosis to decide which scores to treat as extreme outliers (Warner, 2013). Skewness and kurtosis are used to evaluate the normality of a data distribution (Warner, 2017). Skewness measures the symmetry, or the lack thereof, for a data distribution (National Institute of Standards and Technology, 2020). If most data values are on the left side of the curve, but extreme values are present on the right side, then the distribution is positively skewed (Warner, 2013). Conversely, if most data values are on the right side of the curve, but extreme values are present on the left side, then the distribution is negatively skewed (Warner, 2013). Kurtosis is a measure of whether the data is heavy-tailed or light-tailed relative to a normal distribution (National Institute of Standards and Technology, 2020). Data sets with high kurtosis tend to have heavy tails, or outliers (Warner, 2013).

To evaluate the extent of skewness and excess kurtosis on the data distribution, the data must be standardized by dividing the raw values of skewness or kurtosis by their standard errors, which gives the z -scores for skewness and kurtosis (Kim, 2013; Warner, 2013). For medium sample sizes ($n > 50$), skewness and kurtosis z -score values greater than ± 3.29 indicate non-normal data distribution (Kim, 2013; Warner, 2013).

The researcher compared the z -score for skewness and kurtosis with potential outliers to z -scores with potential outliers removed to examine the potential effect the outliers may have on the data. The z -score for skewness and kurtosis with outliers present were -6 and 8.23 respectively which was well beyond the limit of ± 3.29 . See Table 2 for a comparison of descriptive statistics for general self-efficacy with outliers removed. Bivariate outliers found in Figure 1 were removed and the descriptive statistics for general self-efficacy was rerun. The z -score for skewness and kurtosis with the two outliers removed were -1.84 and $.32$ respectively,

which is within the acceptable normality range of +/- 3.29. The researcher chose to proceed with the two outliers removed from the sample. Thus, the rest of the study is based on $n = 61$.

Table 2

Comparison of Descriptive Statistics for General Self-Efficacy with Outliers Removed

	Including outliers	With outliers removed
<i>n</i>	63	61
Mean	33.37	34.11
Median	34	34
Standard Deviation	6.07	4.48
Variance	36.82	20.03
Range	30	20
Skewness	-1.80	-.566
Std. Error Skewness	.31	.30
Skewness z-score	-6	-1.84
Kurtosis	4.93	.194
St. Error Kurtosis	.60	.60
Kurtosis z-score	8.23	.32

The fourth assumption was tested using a scatter plot to check for the assumption of linearity (Gall et al., 2007). See Figure 2 for the scatter plot analysis. Figure 2 shows a linear relationship satisfying linearity (Warner, 2013).

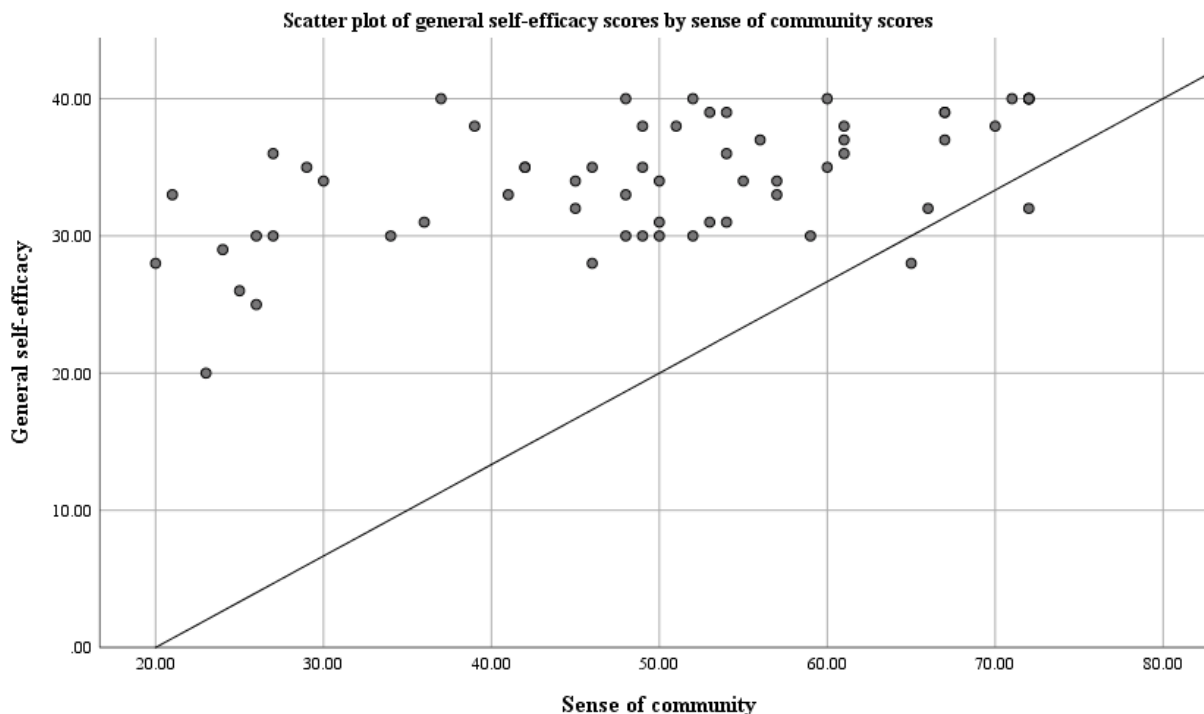


Figure 2. Scatter plot of SCI-2 and GSE total scores

In addition to the z -score normality test used to examine extreme outliers, the fifth and final assumption of bivariate normal distribution was also tested using a Kolmogorov-Smirnov test (Howell, 2011; Warner, 2013). See Table 3 for the Kolmogorov-Smirnov test of normality. Normality was assumed as both variables had a significance level more than .05, as shown in Table 3. The remaining data was then analyzed for the results of this study (Laerd Statistics, 2020b).

Table 3*Kolmogorov-Smirnov Test of Normality*

	Kolmogorov-Smirnov ^a		
	Statistic	Df	Sig.
Sense of community	.101	61	.193
General self-efficacy	.102	61	.180

a. Lilliefors Significance Correction

Null Hypothesis

A Pearson's r correlation coefficient was conducted to evaluate the relationship between sense of community, as measured by the Sense of Community Index (SCI-2), and general self-efficacy, as measured by the General Self-Efficacy Scale (GSE), among college students 50 years of age and older (see Table 4). An alpha level of .05 was set, with a power level of .7 (Warner, 2013). The outcome of the correlational analysis presented in Table 4 shows there was a statistically significant, positive correlation between sense of community and self-efficacy among college students 50 years of age and older, $r(59) = .56, p < .001$. The coefficient of determination indicated SCI-2 statistically explained 30.9% of the variability in GSE ($r^2, .556^2 = .309$). The significance of the relationship allowed the researcher to reject the null hypothesis. An increase in sense of community scores was moderately associated with an increase in general self-efficacy scores for students 50 years old and older.

Table 4*Relationship Between SCI-2 and GSE – Pearson Product-Moment Correlation*

		Sense of Community	General Self-efficacy
Sense of Community	Pearson's <i>r</i>	1	.556**
	<i>p</i> -value		.00
	<i>n</i>	61	61
General Self-efficacy	Pearson's <i>r</i>	.556**	1
	<i>p</i> -value	.00	
	<i>n</i>	61	61

** . Correlation is significant at the 0.01 level (2-tailed).

CHAPTER FIVE: CONCLUSIONS

Overview

This chapter will explore the results of the study researching the relationship between sense of community and self-efficacy in college students 50 years of age and older. The discussion reviews the research question and results of the study. The implications section takes the results and explores their meaning and practical applications. The recommendations for future research offer additional ways to study sense of community and self-efficacy in more specific populations and settings.

Discussion

The purpose of this quantitative, correlational study was to determine the potential linear relationship between sense of community and self-efficacy among senior citizen students. The study determined there is a statistically significant linear relationship between sense of community, as measured by SCI-2, and self-efficacy, as measured by GSE, among students 50 years old and older recently enrolled in a college-level course. Specifically, a Pearson's r correlation analysis was conducted to answer the following research question:

Research Question

RQ: Is there a relationship between sense of community and self-efficacy among senior citizen students?

Null Hypothesis

One null hypothesis resulted from this research question:

H₀: There is no relationship between sense of community and self-efficacy among senior citizen students.

Findings

The results of the study showed sense of community and self-efficacy scores on the higher end of their respective scales. A significant positive correlation between sense of community and self-efficacy was shown for college students 50 years of age and older. The null hypothesis was rejected since there was a statistically significant, positive correlation between sense of community and self-efficacy among college students 50 years of age and older, $r(59) = .56, p < .001$. Understanding this relationship is beneficial for developing educational policies and programs designed for non-traditionally aged students. The results of this study should be considered in the context of related research and its theoretical foundation for the criterion and predictor variables of sense of community and self-efficacy.

The researcher was unable to find another quantitative study to date which has also examined the relationship between sense of community and self-efficacy among senior citizens enrolled in higher education. Therefore, no direct comparisons with prior research can be made. However, there have been previous studies examining an association between sense of community and self-efficacy for other educational settings and populations.

The results of a study of university students in an e-learning community revealed that the academic self-efficacy and sense of community of the students positively affect their knowledge sharing behaviors (Yilmaz, 2016). The current study found an increase in sense of community scores was moderately associated with an increase in general self-efficacy scores for college-level students. This may indicate that students who increase sense of community may simultaneously increase self-efficacy and positively affect knowledge sharing behaviors (Yilmaz, 2016). The high level of sense of community reported by the participants of the current study has been determined by other studies to be a significant social and affective factor proven to

facilitate more engagement, mutual support, collaboration, and relationship building among learners (Diep, Cocquyt, Zhu, & Vanwing, 2017; Diep et al., 2019). McMillan (1976) did mention that an important factor of sense of community was related to a shared faith that members' needs will be met through their commitment to being together.

Participants in the current study also reported a higher general sense of self-efficacy. A study by Probstl and Schmidt-Honig (2019) determined students who reported a high sense of self-efficacy were associated with better cognitive performance and higher personal satisfaction. However, older adults' self-efficacy has been found to be lower than younger people on average and decreases with age (Hur, 2017). Educators should focus on techniques and factors that help raise older student's self-efficacy or it could have a negative impact on their motivation, learning, and academic performance (Imus et al., 2017). The results of the current study indicate that one method would be to increase older student's sense of community to potentially increase their sense of self-efficacy. The relationship found between sense of community and self-efficacy in the current study also relates to the study by Hur (2017) which suggests that older adults could improve inward social self-efficacy through the activities of learning from others, putting themselves in social situations, and volunteering to help people around them and other various relationship-oriented activities. Bandura (2008) proposed that self-efficacy is a trait everyone, regardless of their past or current environment, can exercise and strengthen.

The current study focused on students 50 years old and older. To date, older adults are studied much less than their younger counterparts while more adults are returning to college later in life to further a degree, complete short-term programs, and gain industry-based certifications than any other time in history (Talmage et al., 2016; Withnall, 2016). The increase in older adult enrollment is occurring while higher education is experiencing a trend of transitioning from

traditional classroom education to non-traditional online distance education (Luo, Zhang, & Qi, 2017). Allen and Seaman (2016) report more than one-quarter of higher education students are taking a course online. The concern for older adult students is the associated challenges they experience using technology compared to their younger counterparts (Vacek & Rybenskawas, 2017). Recent studies suggest educators to create opportunities and mechanisms for interaction outside of the classroom for distance education students to maintain a high sense of community (Berry, 2019; Luo et al., 2017). The current study suggests a potential benefit of raising self-efficacy by employing methods that promote a higher sense of community among older students who may encounter challenges with navigating higher education in today's rapidly changing society.

Implications

The results of this present study have implications for at least three groups of educational stakeholders. Students over 50 years of age and older are the focus of the study and the most affected by sense of community and self-efficacy or the lack thereof. Secondly, educators working with students 50 years of age and older can apply instructional methods promoting a higher sense of community and self-efficacy. Lastly, education administrators can influence sense of community for their institution.

According to the National Center for Education Statistics (National Center for Education Statistics, 2020), most students enrolling into college are under the age of 25. The non-traditional student 50 years of age will respond to education differently from their younger counterparts. Students 50 years of age and older returning to college are more at-risk academically than their younger counterpart (Hayes et al., 2017; Tilley, 2014). Understanding there is a significant relationship between sense of community and self-efficacy could positively impact the retention

rates, allow students to learn more efficiently, and increase the academic success for non-traditional, older student cohorts.

Shifts in the global economy due to events like the coronavirus disease (COVID-19) pandemic could potentially cause older adults to return to school. The effect of a global event of this nature also expedites the trend of higher education institutions to offer courses online in lieu of face-to-face courses. Senior citizens often face more challenges using technology compared to their younger counterparts (Vacek & Rybenskawas, 2017). The results of the current study could help bridge the gap in older students' ability to succeed in an online course by focusing on strategies that encourage a higher sense of community and self-efficacy.

Higher education administration has the most potential to utilize the findings of this study to create policy, diversity awareness programs, staff and faculty professional development, marketing material, and institutional strategies focused on fostering a higher sense of community. The results of the current study indicate a rise in sense of community should have an impact on student's self-efficacy, especially for students 50 years of age and older.

Administrators should consider a method to evaluate a student's sense of community and self-efficacy and facilitate discussion on ways to improve these academic psychological concepts. Retention rates for students 50 years of age and older should improve for higher education institutions and adult professional development programs focused on methods employing a higher sense of community. Staff and faculty 50 years of age and older participating in professional development should also be positively impacted by strategies employing a higher sense of community.

Future enrollment for higher education institutions could be positively impacted by the academic success of older students enrolled in their programs. Older students could be connected

to a wider branch of potential younger students in their family and community. The success of older students could impact the number of future enrollments seeking to benefit like the respected member of their community.

Limitations

The results of this quantitative correlational study investigated the relationship between sense of community and self-efficacy for students 50 years of age and older. Although the study fills the gap in the research regarding the relationship between sense of community and self-efficacy, there are limitations related to the sample that need to be addressed. This correlational study was considered non-experimental because it focused on the statistical relationship between two variables but does not imply causation. Causality or experimental research answers questions beyond relationship variables unlike this study.

The minimum participants required for this study was $n = 66$. The survey produced 100 participants, but only 63 participants completed all responses to the SCI-2 and GSE instruments; two of those were outliers and removed from the data set, resulting in a sample size of 61 ($n = 61$). The study's participants were from one state in the Midwest region. A related limitation is that surveys were completed by students attending one state-wide community college, thus the sample may include a level of diversity that is often not found at smaller community colleges in the country. Another limitation is the age of students selected for the sake of the study. The minimum age of participants (at least 50 years of age) were collected but the researcher did not collect age-specific demographics. Additionally, the participants were a mixture of students who had taken face-to-face, online, or a hybrid course consisting of both online and face-to-face instruction. Consequently, the results of this study cannot be generalized to other school settings or student populations.

Recommendations for Future Research

The research and results in this study highlight several opportunities for further research. Some of these recommendations are due to weaknesses of the present study highlighted in the Limitations section above and others are due to this study being relatively exploratory. More research, qualitative and quantitative, is needed to further analyze the relationship of sense of community and self-efficacy among senior citizens. Future research may include:

1. Add to the demographics collected in the survey, such as sex, actual age, professional and educational background to acquire more robust data.
2. Replicate this study with a larger, representative sample, including more diverse demographics.
3. Expand the size of the study to other geographic regions and national surveys.
4. Expand the scope of the study by including students attending other postsecondary and higher education institutions, including but not limited to other community colleges, universities, for-profit or non-profit schools, community-led classes, workplace training, and grant-based professional development programs.
5. Conduct research on participants both at primarily online programs and primarily face-to-face programs.
6. Conduct a study examining relationships between age subscales (50 – 59 years of age, 60-69 years of age, etc.) to gain a better understanding of how adults learn as they age.
7. Study differences in students 50 years of age and older living at home or in a community.
8. Compare sense of community and self-efficacy to other academic psychological constructs.

9. Conducting a qualitative or mixed-method study may be useful to give a more detailed account of the impact of the relationship between sense of community and self-efficacy.
10. Conduct multivariable research or use an experimental design to explore the cause-and-effect relationship between sense of community and self-efficacy.
11. More research on the effects of age on adult learner's success and on the accuracy of various predictors of student success is needed.
12. A general study exploring predictive factors of success for adult learners.

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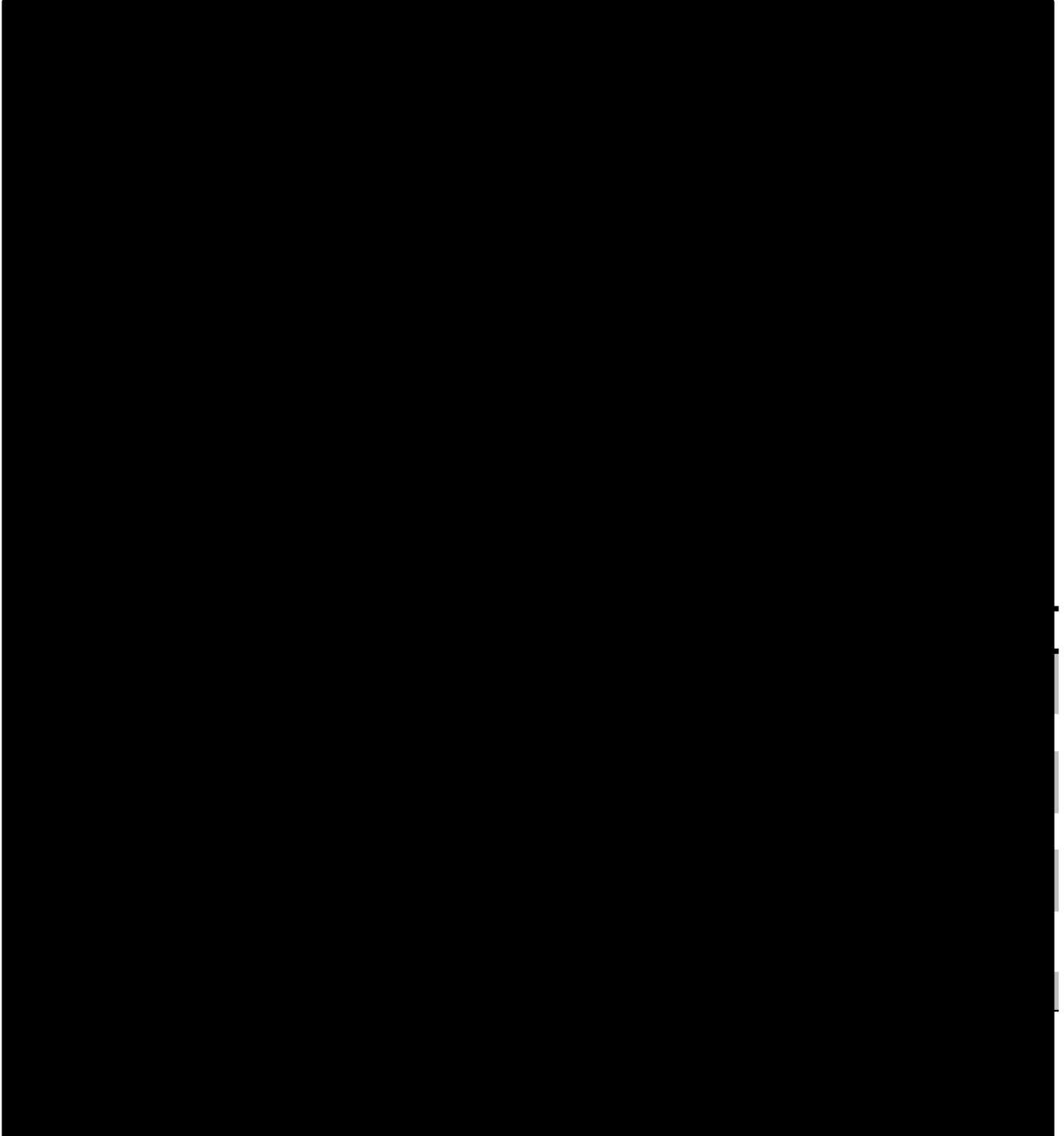
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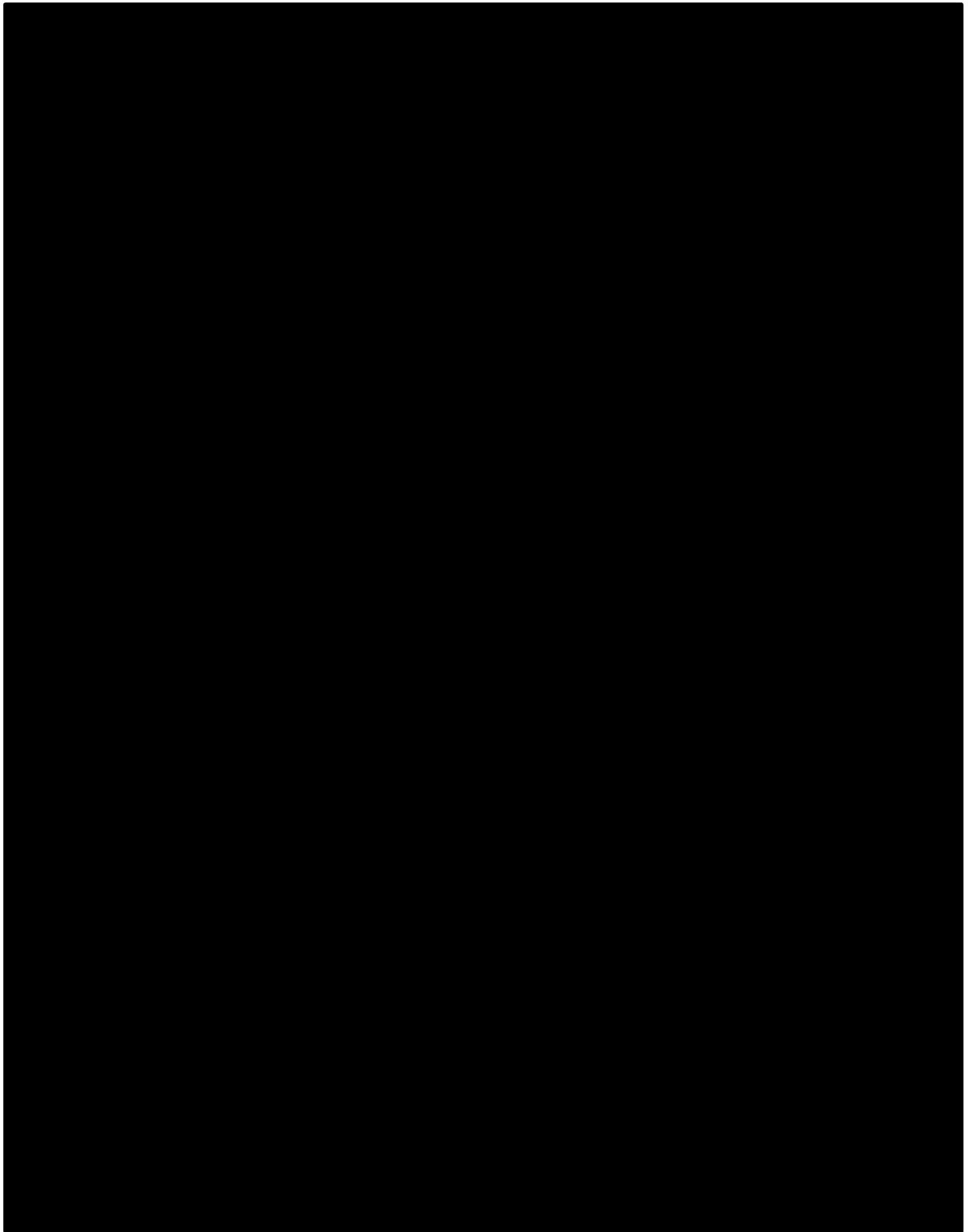
APPENDIX A: SENSE OF COMMUNITY INDEX II

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Sense of Community. (2018). Sense of Community Index (SCI) – Sense of Community.

<https://www.senseofcommunity.com/soc-index/>








APPENDIX B: GENERAL SELF-EFFICACY SCALE

The General Self-Efficacy Scale (GSE)

Authors	Ralf Schwarzer & Matthias Jerusalem
Languages	The scale is available in 33 languages at http://userpage.fu-berlin.de/~health/selfscal.htm
Origin	German version developed in 1979 by Matthias Jerusalem and Ralf Schwarzer, and later revised and adapted to 26 other languages by various co-authors. Citation: Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, <i>Measures in health psychology: A user's portfolio. Causal and control beliefs</i> (pp. 35-37). Windsor, UK: NFER-NELSON.
Purpose	The scale was created to assess a general sense of perceived self-efficacy with the aim in mind to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events.
Population	The scale is designed for the general adult population, including adolescents. Persons below the age of 12 should not be tested.
Administration	The scale is usually self-administered, as part of a more comprehensive questionnaire. Preferably, the 10 items are mixed at random into a larger pool of items that have the same response format. Time: It requires 4 minutes on average. Scoring: Responses are made on a 4-point scale. Sum up the responses to all 10 items to yield the final composite score with a range from 10 to 40. No recoding.
Description	The construct of Perceived Self-Efficacy reflects an optimistic self-belief (Schwarzer, 1992). This is the belief that one can perform a novel or difficult tasks, or cope with adversity -- in various domains of human functioning. Perceived self-efficacy facilitates goal-setting, effort investment, persistence in face of barriers and recovery from setbacks. It can be regarded as a positive resistance resource factor. Ten items are designed to tap this construct. Each item refers to successful coping and implies an internal-stable attribution of success. Perceived self-efficacy is an operative construct, i.e., it is related to subsequent behavior and, therefore, is relevant for clinical practice and behavior change.
Coverage	The scale can be applied, for example, to patients before and after surgery to assess changes in quality of life. Also, it can be used in patients with chronic pain or those within a rehabilitation program.
Reliability	In samples from 23 nations, Cronbach's alphas ranged from .76 to .90, with the majority in the high .80s. The scale is unidimensional.
Validity	Criterion-related validity is documented in numerous correlation studies where positive coefficients were found with favorable emotions, dispositional optimism, and work satisfaction. Negative coefficients were found with depression, anxiety, stress, burnout, and health complaints. In studies with cardiac patients, their recovery over a half-year time period could be predicted by pre-surgery self-efficacy. More at: http://userpage.fu-berlin.de/~health/self/selfeff_public.htm
Strengths	The measure has been used internationally with success for two decades. It is suitable for a broad range of applications. It can be taken to predict adaptation after life changes, but it is also suitable as an indicator of quality of life at any point in time.
Weaknesses	As a general measure, it does not tap specific behavior change. Therefore, in most applications it is necessary to add a few items to cover the particular content of the survey or intervention (such as smoking cessation self-efficacy, or physical exercise self-efficacy). How to write such items is described in Schwarzer and Fuchs (1996).

Bibliography (by year)	<p>Jerusalem, M., & Schwarzer, R. (1992). Self-efficacy as a resource factor in stress appraisal processes. In R. Schwarzer (Ed.), <i>Self-efficacy: Thought control of action</i> (pp. 195-213). Washington, DC: Hemisphere.</p> <p>Schwarzer, R. (Ed.) (1992). <i>Self-efficacy: Thought control of action</i>. Washington, DC: Hemisphere.</p> <p>Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, <i>Measures in health psychology: A user's portfolio. Causal and control beliefs</i> (pp. 35-37). Windsor, UK: NFER-NELSON.</p> <p>Zhang, J. X., & Schwarzer, R. (1995). Measuring optimistic self-beliefs: A Chinese adaptation of the General Self-Efficacy Scale. <i>Psychologia: An International Journal of Psychology in the Orient</i>, 38 (3), 174-181.</p> <p>Bäßler, J., & Schwarzer, R. (1996). Evaluación de la autoeficacia: Adaptación española de la escala de autoeficacia general [Measuring generalized self-beliefs: A Spanish adaptation of the General Self-Efficacy scale]. <i>Ansiedad y Estrés</i>, 2 (1), 1-8.</p> <p>Schwarzer, R., & Fuchs, R. (1996). Self-efficacy and health behaviors. In M. Conner & P. Norman (Eds.), <i>Predicting health behavior: Research and practice with social cognition models</i>. (pp. 163-196) Buckingham, UK: Open University Press.</p> <p>Schwarzer, R., Jerusalem, M., & Romek, V. (1996). Russian version of the General Self-Efficacy Scale. <i>Foreign Psychology (Moscow)</i>, 7, 71-77 [in Russian].</p> <p>Schwarzer, R., Bäßler, J., Kwiatek, P., Schröder, K., & Zhang, J. X. (1997). The assessment of optimistic self-beliefs: Comparison of the German, Spanish, and Chinese versions of the General Self-Efficacy Scale. <i>Applied Psychology: An International Review</i>, 46 (1), 69-88.</p> <p>Schwarzer, R., & Born, A. (1997). Optimistic self-beliefs: Assessment of general perceived self-efficacy in thirteen cultures. <i>World Psychology</i>, 3(1-2), 177-190.</p> <p>Schwarzer, R., Born, A., Iwawaki, S., Lee, Y.-M., Saito, E., & Yue, X. (1997). The assessment of optimistic self-beliefs: Comparison of the Chinese, Indonesian, Japanese and Korean versions of the General Self-Efficacy Scale. <i>Psychologia: An International Journal of Psychology in the Orient</i>, 40 (1), 1-13.</p> <p>Schwarzer, R., Mueller, J., & Greenglass, E. (1999). Assessment of perceived general self-efficacy on the Internet: Data collection in cyberspace. <i>Anxiety, Stress, and Coping</i>, 12, 145-161.</p> <p>Rimm, H., & Jerusalem, M. (1999). Adaptation and validation of an Estonian version of the General Self-Efficacy Scale (ESES). <i>Anxiety, Stress, and Coping</i>, 12, 329-345.</p> <p>Schwarzer, R., & Scholz, U. (2000). Cross-Cultural Assessment of Coping Resources: The General Perceived Self-Efficacy Scale. Paper presented at the First Asian Congress of Health Psychology: Health Psychology and Culture, Tokyo, Japan.</p> <p>Scholz, U., Gutiérrez-Doña, B., Sud, S., & Schwarzer, R. (2001-submitted). Is perceived self-efficacy a universal construct? Psychometric findings from 25 countries.</p>																				
Contact																					
Appendix	<p style="text-align: center;">English version by Ralf Schwarzer & Matthias Jerusalem, 1995</p>																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 5%;">1</td><td>I can always manage to solve difficult problems if I try hard enough.</td></tr> <tr><td>2</td><td>If someone opposes me, I can find the means and ways to get what I want.</td></tr> <tr><td>3</td><td>It is easy for me to stick to my aims and accomplish my goals.</td></tr> <tr><td>4</td><td>I am confident that I could deal efficiently with unexpected events.</td></tr> <tr><td>5</td><td>Thanks to my resourcefulness, I know how to handle unforeseen situations.</td></tr> <tr><td>6</td><td>I can solve most problems if I invest the necessary effort.</td></tr> <tr><td>7</td><td>I can remain calm when facing difficulties because I can rely on my coping abilities.</td></tr> <tr><td>8</td><td>When I am confronted with a problem, I can usually find several solutions.</td></tr> <tr><td>9</td><td>If I am in trouble, I can usually think of a solution.</td></tr> <tr><td>10</td><td>I can usually handle whatever comes my way.</td></tr> </table>	1	I can always manage to solve difficult problems if I try hard enough.	2	If someone opposes me, I can find the means and ways to get what I want.	3	It is easy for me to stick to my aims and accomplish my goals.	4	I am confident that I could deal efficiently with unexpected events.	5	Thanks to my resourcefulness, I know how to handle unforeseen situations.	6	I can solve most problems if I invest the necessary effort.	7	I can remain calm when facing difficulties because I can rely on my coping abilities.	8	When I am confronted with a problem, I can usually find several solutions.	9	If I am in trouble, I can usually think of a solution.	10	I can usually handle whatever comes my way.
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Response Format	<p>1 = Not at all true 2 = Hardly true 3 = Moderately true 4 = Exactly true</p>																				

APPENDIX C: WRITTEN PERMISSION FOR USE OF INSTRUMENTATION

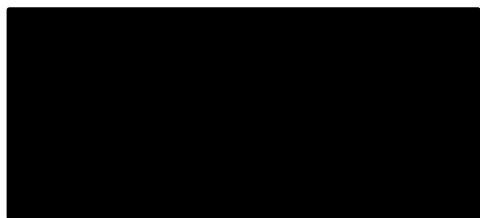
Pranger, Matthew

From: Sense of Community [REDACTED]
Sent: Tuesday, May 29, 2018 4:33 PM
To: Pranger, Matthew
Subject: RE: SCI Request Submitted
Attachments: Sense of Community Index-2(SCI-2).pdf

Hi Matthew,

Thank you for your interest in the SCI-2 and sense of community research. I have reviewed your request form, and you are approved to use the index for the project you described. Please find the index attached. If you have any questions, do not hesitate to reach out, and best of luck with your work!

Thank you,



www.communityscience.com (Learn more about us)
www.senseofcommunity.com (Resources and discussions on SOC)

Community Science is a group practice of social change professionals who use knowledge to build healthy, just, and equitable communities.

 Please consider the environment before printing this e-mail.

APPENDIX D: INSTITUTIONAL REVIEW BOARD EXEMPTION

LIBERTY UNIVERSITY

INSTITUTIONAL REVIEW BOARD

September 6, 2019

Matthew Pranger

IRB Exemption 3888.090619: The Relationship between Sense of Community and Self-Efficacy among Senior Citizen Students

Dear Matthew Pranger,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

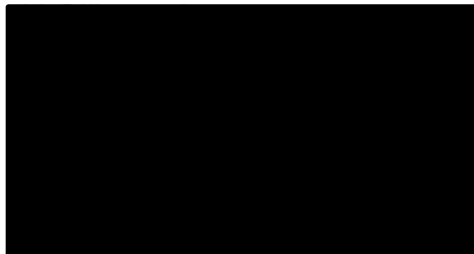
Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

(2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:

(i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects;

Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

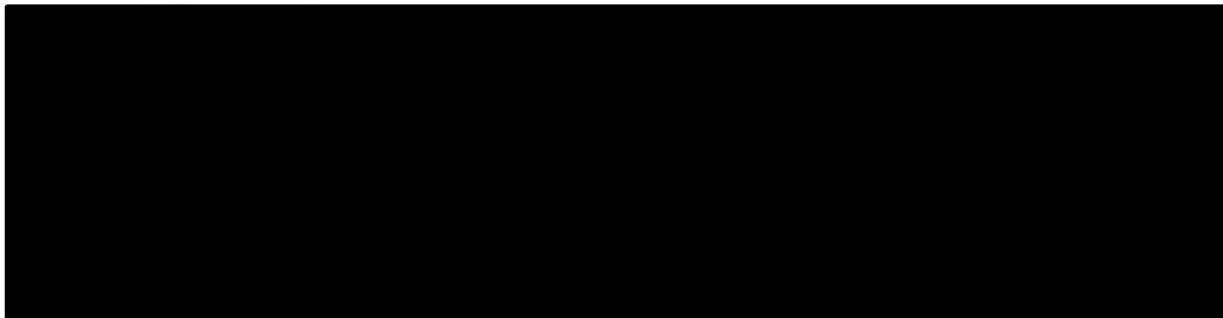
If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at



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APPENDIX E: PARTICIPATING COLLEGE'S IRB EXEMPTION



Notice of IRB Determination



Institutional Review Board

Study Title: The Relationship Between Sense of Community and Self-Efficacy Among Senior Citizen Students.

Protocol Number: 19016

Principle Investigator: Matthew Pranger

IRB Reviewer: [REDACTED]

Date of Correspondence: July 22, 2019

Type of Review:

- Initial Review
- Requested Re-review
- Other

IRB Determination:

- Exempt
 - Does not qualify as research under 45 CFR §46.102(d)
 - Meets Exempt category under 45 CFR §46.101(b)
 - Category 1: Research conducted in established or commonly accepted educational settings involving normal educational practices
 - Category 2: Research involving the use of educational tests, survey procedures, interview procedures or observation of public behavior
 - Category 3: Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior not exempt under Category 2 but involving public officials or candidates for public office, or federal statute requires confidentiality
 - Category 4: Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens
 - Category 5: Research or demonstration projects designed to examine public benefit or service programs; procedures for obtaining benefits or services; possible changes in or alternatives to programs or procedures; possible changes in methods or levels of payment
 - Category 6: Taste and food quality evaluation and consumer acceptance studies

Expedited Review

Full Review

IRB Review Result

Approved

- Denied
 Not applicable (exempt)

Review Notes

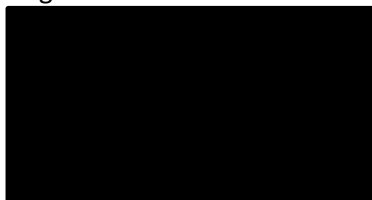
Your application for the referenced study Protocol Number 19016 has been reviewed and determined to be **Exempt** under 45 CFR §46.101(b). The study will involve the use of an anonymous survey, with no to minimal risks to participants. Information collected will be anonymous and participation is voluntary.

Please make note of the following:

- This notification should be retained for your records.
- Please note that IRB approval does not obligate faculty or students to participate in your study. If you have not done so already, you will need to secure the cooperation of campus leadership by contacting the Vice Chancellor of Academic Affairs **of each involved campus**. Once you have that authorization, you may proceed with the project as described in your research application. Note that it is the sole responsibility of the Principal Investigator to recruit subjects for the study. While the PI may request assistance in subject recruitment from other [REDACTED] faculty or staff, the faculty and staff have no responsibility to assist in the recruitment, and any assistance is voluntary.
- If the protocol changes in a way such that the basis for exemption or approval is no longer accurate, and may no longer conform to the criteria for exemption or approval, a new Initial Review application will need to be submitted. Investigators should contact the IRB office via email prior to making changes in order to confirm that the status will not be affected.
- Exempting an activity from review does not absolve the investigator(s) from ensuring that the rights and welfare of subjects in the activity is protected and that methods used and information provided to gain subject consent are appropriate to the activity.
- Investigators of exempt research are expected to be guided by the ethical principles for all research involving humans as subjects, set forth in the report of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (the "Belmont Report"). For a copy of the Belmont Report, see <http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.htm>.

Please contact [REDACTED] at [REDACTED] with any questions.

Signature of IRB Reviewer:



APPENDIX F: PARTICIPANT RECRUITMENT LETTER

April 19, 2019

[Recipient]

[Title]

[Company]

[Address 1]

[Address 2]

[Address 3]

Dear [Recipient]:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctorate of Education degree. The purpose of my research is to determine if there is a relationship between sense of community and self-efficacy among senior citizens who are currently enrolled in a college level course, and I am writing to invite you to participate in my study.

If you are 50 years of age or older, currently enrolled in a college-level course, and are willing to participate, you will be asked to complete an online survey. It should take approximately 7 – 13 minutes for you to complete the procedure listed. Your participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, go to <https://www.surveymonkey.com/r/socgse/> and click on the link provided.

A consent document is provided as the first page you will see after you click on the survey link. The consent document contains additional information about my research. Please click on the survey link at the end of the consent information to indicate that you have read the consent information and would like to take part in the survey.

Sincerely,

Matthew Pranger

Doctorate Candidate

APPENDIX G: CONSENT FORM

CONSENT FORM

The Relationship Between Sense of Community and Self-Efficacy
Among Senior Citizen Students

Matthew Pranger
Liberty University
School of Education

You are invited to be in a research study of the relationship between sense of community and self-efficacy among senior citizen students. You were selected as a possible participant because you are enrolled in a college-level course and are 50 years old or older. Please read this form and ask any questions you may have before agreeing to be in the study.

Matthew Pranger, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to determine if there is a relationship between sense of community and self-efficacy among senior citizens who are currently enrolled in a college level course.

Procedures: If you agree to be in this study, I would ask you to do the following things:

1. Go to SurveyMonkey® and click on the link provided.
2. Complete the online survey. It should take approximately 7 – 13 minutes for you to complete the procedure listed.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits: Participants should not expect to receive a direct benefit from taking part in this study.

Compensation: Participants will not be compensated for participating in this study.

Confidentiality: The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records. Participants will not have names submitted or stored along with the survey. Data will be stored on a password locked computer and may be used in future presentations. Per federal regulations, data must be retained for three years upon completion of the study.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Contacts and Questions: The researcher conducting this study is Matthew Pranger. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [REDACTED]. You may also contact the researcher's faculty chair, Gary Kuhne, at [REDACTED].

If you have any questions or concerns regarding this study and would like to talk to someone [REDACTED]

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature of Participant

Date

Signature of Investigator

Date