

A PHENOMENOLOGICAL STUDY OF THE EXPERIENCES OF GRADUATE
OCCUPATIONAL THERAPY STUDENTS USING A MAGIC TRICK-THEMED
INTERVENTION

by

Kevin Wayne Spencer

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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APPROVED BY:

Nathan Street, Ed.D., Committee Chair

Kurt Michael, Ph.D., Committee Member

Abstract

The purpose of this hermeneutic phenomenological study was to examine the lived experiences of graduate occupational therapy students in the delivery of a magic trick-themed intervention in their fieldwork to gain a deeper understanding of the factors that may influence their decision to adopt or reject this approach. This study was qualitative, employing a hermeneutic phenomenological approach guided by the theoretical framework of diffusion of innovations theory. The aim was to gain a deeper understanding of the interpretation of their experience and the factors that may influence how and why an arts-integrated, evidence-based practice is adopted or rejected by the participants. It was conducted at the School of Health Professions, a research-intensive institution of higher education (R-1) situated in an urban area in the southern part of the United States. It included graduate occupational therapy students who were enrolled in the Masters of Science in Occupational Therapy program. Findings revealed the lived experiences of the participants with the magic trick-themed intervention moved them through a process of self-discovery, created opportunities for reflection that validated their experiences, helped them recognize specific qualities about themselves, and, ultimately, produced a change in their thinking about the benefits, functionality, and effectiveness of the intervention.

Keywords: school-based occupational therapy, special education, intervention, magic, arts in medicine, magic-trick themed intervention

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Table of Contents

| | |
|--------------------------------|----|
| Abstract..... | 3 |
| Copyright Page..... | 4 |
| Acknowledgements..... | 5 |
| List of Tables..... | 12 |
| List of Figures..... | 13 |
| List of Abbreviations..... | 14 |
| CHAPTER ONE: INTRODUCTION..... | 15 |
| Overview..... | 15 |
| Background..... | 15 |
| Historical Context..... | 16 |
| Empirical Context..... | 20 |
| Theoretical Context..... | 24 |
| Problem Statement..... | 26 |
| Purpose Statement..... | 27 |
| Significance of the Study..... | 28 |
| Research Questions..... | 29 |
| Central Research Question..... | 29 |
| Sub-Question One..... | 29 |
| Sub-Question Two..... | 29 |
| Sub-Question Three..... | 30 |
| Sub-Question Four..... | 30 |
| Definitions..... | 30 |

| | |
|-------------------------------------|----|
| Summary..... | 31 |
| CHAPTER TWO: LITERATURE REVIEW..... | 34 |
| Overview..... | 34 |
| Theoretical Framework..... | 34 |
| Related Literature..... | 43 |
| Summary..... | 66 |
| CHAPTER THREE: METHODS..... | 69 |
| Overview..... | 69 |
| Research Design..... | 69 |
| Research Questions..... | 73 |
| Central Research Question..... | 74 |
| Sub-Question One..... | 74 |
| Sub-Question Two..... | 74 |
| Sub-Question Three..... | 74 |
| Sub-Question Four..... | 74 |
| Setting and Participants..... | 75 |
| Site (or setting)..... | 75 |
| Participants..... | 76 |
| Researcher Positionality..... | 78 |
| Interpretive Framework..... | 79 |
| Philosophical Assumptions..... | 80 |
| Researcher's Role..... | 81 |
| Procedures..... | 83 |

| | |
|--|-----|
| Permissions..... | 83 |
| Recruitment Plan..... | 83 |
| Data Collection Plan..... | 84 |
| Individual Interviews (Data Collection Approach #1)..... | 88 |
| Journal Prompts (Data Collection Approach #2)..... | 93 |
| Follow Up Interviews (Data Collection Approach #3)..... | 94 |
| Data Synthesis..... | 97 |
| Trustworthiness..... | 99 |
| Credibility..... | 99 |
| Transferability..... | 100 |
| Dependability..... | 101 |
| Confirmability..... | 101 |
| Ethical Consideration..... | 101 |
| Summary..... | 102 |
| CHAPTER FOUR: FINDINGS..... | 103 |
| Overview..... | 103 |
| Participants..... | 103 |
| Results..... | 106 |
| Themes Explored in Interviews..... | 106 |
| Relative Advantage..... | 110 |
| Functional Flexibility..... | 110 |
| Complexity..... | 111 |
| Level of Difficulty..... | 112 |

| | |
|---|-----|
| Compatibility..... | 113 |
| Client-Centered..... | 113 |
| Trialability..... | 114 |
| Personal Experiences..... | 114 |
| Observability..... | 117 |
| Developmental Socialization..... | 118 |
| Themes and Sub-Themes Explored in Journals..... | 121 |
| Personal Fulfillment..... | 123 |
| Lessons Learned..... | 125 |
| Final Impressions..... | 127 |
| Personal Concerns..... | 128 |
| Motivations..... | 129 |
| Themes and Sub-Themes Explored in Follow-Up Interviews..... | 130 |
| Emotional Responses..... | 133 |
| Worries & Concerns..... | 135 |
| Change in Thinking..... | 136 |
| Skepticism..... | 137 |
| Self-Doubt..... | 138 |
| Surprises..... | 139 |
| Summary of Themes | 139 |
| Research Question Responses..... | 142 |
| Central Research Question..... | 142 |
| Sub-Question One..... | 143 |

| | |
|--|-----|
| Sub-Question Two..... | 144 |
| Sub-Question Three..... | 145 |
| Sub-Question Four..... | 146 |
| Summary..... | 147 |
| CHAPTER FIVE: CONCLUSION..... | 150 |
| Overview..... | 150 |
| Discussion..... | 150 |
| Interpretation of Findings..... | 151 |
| Implications for Practice..... | 160 |
| Theoretical and Empirical Implications..... | 163 |
| Limitations and Delimitations..... | 169 |
| Recommendations for Future Research..... | 170 |
| Conclusion..... | 171 |
| References..... | 173 |
| Appendix A..... | 200 |
| HFSC Sample Lesson | |
| Appendix B..... | 204 |
| Descriptions and Video Links of Magic Tricks | |
| Appendix C..... | 205 |
| Magic Camp Protocol | |
| Appendix D..... | 208 |
| HFA Sample Outcome Charts | |
| Appendix E..... | 210 |

| | |
|---|-----|
| HFMPES | |
| Appendix F..... | 212 |
| IRB Approval | |
| Appendix G..... | 213 |
| Site Permission | |
| Appendix H..... | 214 |
| Verbal Recruitment Script | |
| Appendix I..... | 216 |
| Research Participant Consent Form | |
| Appendix J..... | 220 |
| Thematic Saturation in Qualitative Research | |
| Appendix K..... | 223 |
| Interview Questions | |
| Appendix L..... | 224 |
| Follow-Up Interview Prompts | |
| Appendix M..... | 225 |
| Journal Prompts | |

List of Tables

| | |
|---|-----|
| Table 1. Research Participants..... | 104 |
| Table 2. Participant & Client Diagnosis..... | 105 |
| Table 3. Thematic Saturation..... | 107 |
| Table 4. Main Themes Aligned to Core Attributes | 109 |
| Table 5. Themes & Sub-Themes Explored in Journals..... | 122 |
| Table 6. Themes & Sub-Themes Explored in Follow-Up Interview..... | 131 |
| Table 7. Themes and Sub-Themes Aligned with Core Attributes of a Successful Innovation... | 140 |

List of Figures

| | |
|--|-----|
| Figure 1. Theories Supporting Magic as an Effective Treatment..... | 25 |
| Figure 2. Five Stages of the Innovation-Decision Process (Rogers, 2003)..... | 36 |
| Figure 3. Core attributes of Diffusion of Innovations (Rogers, 2003)..... | 37 |
| Figure 4. Diffusion S-Curve (Mahler & Rogers, 1999)..... | 39 |
| Figure 5. Research Questions Supported by Diffusion of Innovations (Rogers, 2003)..... | 75 |
| Figure 6. Summary of Themes and Sub-Themes..... | 152 |
| Figure 7. Cycle of Experiential Learning (Kolb, 1984)..... | 155 |
| Figure 8. Implications for Practice..... | 157 |
| Figure 9. Relationship Between Innovation-Decision Process and Core Attributes..... | 162 |
| Figure 10. S-Curve and Percentage of Adopters..... | 163 |

List of Abbreviations

AIM – Institute for Arts in Medicine

AOTA – American Occupational Therapy Association

APTA – American Association of Physical Therapy

CEC – Council for Exceptional Children

CETA – Changing Education Through the Arts

EBP – Evidence-based practices

HFA – Hocus Focus Analytics

HFSC – Hocus Focus Supplemental Curriculum

IEP – Individual Education Program or Plan

MSOT – Masters of Science Occupational Therapy

OT – Occupational therapy

OTD – Occupational Therapy Doctorate

PBE – Practice-based evidence

RPG – Research-practice gap

SBOT – School-based occupational therapists

UAB – University of Alabama at Birmingham

WFOT – World Federation of Occupational Therapy

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this hermeneutic phenomenological study was to examine the lived experiences of graduate occupational therapy (OT) students in the delivery of a magic trick-themed intervention in their fieldwork to gain a deeper understanding of the factors that may influence their decision to adopt or reject this approach in their future practice. This opening chapter provides a comprehensive background of the problem that informs the purpose of this study and shapes the research questions it attempts to answer. Next, it briefly introduces a novel, arts-integrated intervention, outlines the theoretical framework that will guide the study, and summarizes its significance to the various stakeholders. Finally, the chapter concludes with definitions of terms that are applicable and relevant to the study.

Background

Researchers have generated a robust knowledge base of instructional approaches and therapeutic interventions that reinforce efforts for success for students with disabilities (Chi, 2021; Grima-Ferrell, 2018). Yet, despite this foundation, the literature reveals a substantial gap between effective practices in assisting these students in achieving their objectives and the degree to which these practices are successfully being implemented (Grima-Ferrell, 2018). Multiple rationales have been offered to address this concern: research findings are too theoretical, and teachers need knowledge that is context-specific (Chi, 2021); research is often irrelevant to practice (Chi, 2021; Cook & Farley, 2019); findings are inaccessible and poorly disseminated (Cook & Farley, 2019; Chi, 2021); and practitioners who work with students with disabilities are often confronted with confusion when identifying evidence-based practices (EBPs) due to a difference in evaluation criteria used by major organizations in assessing curriculum and interventions (Hawkins, 2011; Upton et al., 2014).

There is expanding evidence for the application of arts and art therapies as a supplementary treatment approach to help children and adolescents with disabilities to improve a variety of skills, including social skills and psychological well-being (Bosgraaf et al., 2020). One therapeutic tool in the arts that has shown promise for children with disabilities is learning magic tricks (Wiseman & Watt, 2018). Notably, the art of magic is not simply knowing the secret of doing the trick, but the tricks incorporate patter, cognition, and motor skills. The performer must be able to engage the audience through verbal or nonverbal storytelling (patter), such as using appropriate facial expressions and gestures that emphasize the impossibility, or the "magic," of the presentation while performing the trick (O'Rourke et al., 2018). Therefore, the nature of performing a magic trick exceeds merely remembering (cognition) and sequentially executing the steps (motor skills) to deliver the trick. Learning to present the trick to the audience has the potential to help children with disabilities, including autism, develop appropriate social interactions with peers and enhance their social skills (Ezell & Klein-Ezell, 2003; Spencer, 2012).

Historical Context

According to the American Occupational Therapy Association (2016), school-based occupational therapists (SBOT) are vital members of the special education-related services team and support a student's academic and non-academic outcomes as well as their mental, social, and behavioral health. An examination in recent years of the relationship between special education teachers and related services team members identified relationship building and effective collaboration as core aims of successful intervention (Christner, 2015; Missiuna et al., 2012; O'Donoghue et al., 2021), including the application of multidisciplinary and interdisciplinary arts-based interventions (Müller et al., 2019; O'Rourke et al., 2018). However, there is evidence of a gap between the everyday practices of occupational therapists (OT) and special educators

and those articulated in the literature (Kielhofner, 2005). Research suggests that OTs and special educators provide more substantive value to practice-based evidence (PBE) constructed on their experiences and those of their colleagues (Cook & Cook, 2016; Cook & Farley, 2019; Eriksson et al., 2013; Simons et al., 2003). The attitudes and beliefs of practitioners are highly influential in bridging the research-practice gap (RPG). Innovative practices provide little opportunity for implementation if researchers are unable to convince practitioners that EBPs are trustworthy (Carnine, 1997).

One evidence-based practice often ignored or rejected by special educators and SBOTs is arts integration. The John F. Kennedy Center for the Performing Arts, through its Changing Education through the Arts (CETA) program, has been a leader in the arts and disability movement since 1999 (Silverstein & Layne, 2010). CETA developed a comprehensive definition for arts integration that informs practitioners precisely what arts integration means and its purpose. It is defined as "an approach to teaching in which students construct and demonstrate understanding through an art form. Students engage in a creative process which connects an art form and another subject area and meets evolving objectives in both" (Silverstein & Layne, 2010, p. 1).

An abundance of research supports the application of the arts in delivering both functional and academic content to students with disabilities (Brown & Vaughan, 2009; Buck & Snook, 2020; Burnaford, 2007; Fiske, 1999; Goldberg, 2021; Lilliedahl, 2018). Research has demonstrated improved cognition and self-discipline among students while providing evidence of transference into academic areas (Miller & Bogatova, 2018). One significant finding of the Fiske (1999) report, *Champions of Change*, was the contribution of the arts to advance active learning in students from disadvantaged backgrounds who were not being addressed by traditional methods. In a four-year arts integration project involving four school districts in

Pennsylvania, researchers discovered that this instructional approach offered students authentic learning experiences that produced several positive outcomes, including better learning habits, improved engagement, and increased reading and math scores (Miller & Bogatova, 2018).

In a study designed to measure the long-term retention of academic content taught through arts integration, researchers found that students more significantly retained what they learned than through more traditional instructional practices (Fiske, 1999; Hardiman et al., 2014). In a quantitative methods study, Hardiman et al. (2014) reported the effect of arts integration on long-term retention of content. The study included 82 fifth grade students from low-income families and employed a multiple-choice, curriculum-based assessment to measure student learning and retention of science content. Two science units (astronomy and ecology) spanning three weeks of instruction were designed. Each unit included a control version utilizing conventional instructional methods (control group) and an arts-integrated version that incorporated music, visual arts, and performance into instruction (treatment group). Results from the comparison of initial pretest (T_1) and posttest (T_2) scores were implemented to calculate correct percentages, and repeated-measures ANOVAs of initial learning and retention were conducted. The analysis of retention revealed a significant effect of arts integration, as well as a significant interaction between arts integration and reading proficiency level.

In a mixed methods exploratory study conducted in a school in suburban Maryland, Müller, et al. (2019) reported that an arts integrated program resulted in significant gains in social skills measures in four classrooms of students ranging from pre-K through second grade. The students served in these classrooms had challenges with social cognition and other developmental disabilities, including autism spectrum disorder (ASD), ADHD, communication impairments, anxiety, emotional regulation disorders, and fine/gross motor difficulties. Researchers hypothesized that the arts might be influential in facilitating social-emotional

learning (SEL) in this population. Four focus participants were randomly selected from each classroom, which contained between 10 and 14 students, resulting in a total of 16 participants ranging in age from 5.0 years to 8.8 years. Co-teachers (one pair in each classroom for a total of eight) were responsible for implementing the arts integrated program with all students in their classroom.

Quantitative data were collected twice during the academic year – baseline and end-of-program (Müller et al., 2019). Teachers completed the Behavior Rating Inventory of Executive Function (BRIEF) and the Social Responsiveness Scale-2 (SRS-2) in coordination with an 11-item behavioral checklist aligned to the arts integrated and SEL goals and developed for this study. Qualitative data were collected at the end-of-program through interviews with teachers, parents, and related service providers. Based on a comparison of scores on the BRIEF, participants indicated a statistically significant change from baseline to end-of-program scores. Comparing scores on the SRS-2, participants also indicated a statistically significant change from baseline to end-of-program. In addition, the behavioral checklist demonstrated significant improvements in 10 out of 11 behaviors, with the two most dramatic improvements in ‘following multi-step directions independently’ and ‘recognizing one’s own strengths and challenges.’ A thematic analysis of the qualitative data revealed several key themes and subthemes which aligned with the five social-emotional learning (SEL) domains identified by the Collaborative Association of Social Emotional Learning (CASEL, 2021): self-awareness, self-management, social awareness, relationship skills, and responsible decision making.

These studies demonstrate the benefits of arts integration for children with disabilities to improve social-emotional learning and the acquisition and retention of content. They provide support for the application of the arts as an instructional approach and a treatment technique. Yet

despite these positive findings, there remains a gap between the research and if or how these arts-integrated practices are being implemented.

Empirical Context

Although the research-to-practice gap exists in many fields, it is particularly consequential in special education as learners with and at risk for disabilities require highly effective instruction to achieve their goals and attain success in and out of school (Cook & Farley, 2019). In several studies, researchers found that special educators self-reported that they often implement ineffective practices as much as or more often than identified effective methods (Carter et al., 2011; Cooper et al., 2018; Gable et al., 2012; Mazzotti & Plotner, 2016). Observational studies, though limited, reinforce these findings (McKenna et al., 2015; Pennington & Courtade, 2015). Examining the factors that influence a practitioner's willingness to adopt the new practice as well as how new evidence-based practices (EBPs) are taught or disseminated, may be of value to university instructors, those who provide professional development training for educators, and approved providers of continuing education for clinicians, to address better the concerns and obstacles that contribute to the hesitancy of implementing EPBs. The RPG that was first described by Brickell (1967) more than four decades ago still exists in special education (Cook & Cook, 2016; Cook & Farley, 2019; Grima-Farrell, 2018). And few studies exist that investigate the factors that may be directly related to research becoming a practice in the special education environment (Grima-Farrell, 2017; Grima-Farrell, 2018).

Occupational therapists and occupational therapy assistants incorporate meaningful activities to support children and adolescents with disabilities to engage actively with them in learning and school activities. Crepeau et al. (2009) described occupational therapy as "the art

and science of helping people do the day-to-day activities that are important and meaningful to their health and well-being through engagement in valued occupations" (p. 217). OT recognizes the value of the arts and is founded on the Arts and Crafts and Moral Treatment Movements of the late 19th and early 20th centuries (Bathje, 2012). The arts and crafts movement valued authentic experiences and their contribution to the quality of life (Hussey et al., 2007). The moral treatment movement was constructed on the philosophy that individuals are entitled to compassion and concern and that engagement in purposeful activity influences personal health (Hussey et al., 2007). As the profession of OT developed, it transitioned from an arts and crafts approach but perpetuated an identity that remains connected to creativity (Bathje, 2012).

Creativity is an integral part of any treatment strategy because of its effect on motivation, self-expression, and self-esteem – essential aspects of reshaping self-concept (Thompson & Blair, 1998). These qualities are valuable attributes for children and adolescents with disabilities to develop (O'Rourke et al., 2018; Spencer et al., 2021; Yuen et al., 2021). In the 1980s, a small number of researchers evaluated the effectiveness of teaching simple magic tricks to students with disabilities as an arts-based intervention. The findings revealed that this method provided a creative way of stimulating their senses and curiosity (Frith & Walker, 1983), encouraged problem-solving skills (McCormack, 1985), and improved collaboration and self-esteem (Broome, 1989). In 1988, a program entitled Magic Therapy™ was developed and manualized to integrate simple magic tricks into therapeutic practice for occupational therapists. In addition, a supplemental curriculum, Hocus Focus™, merged functional objectives often found in a student's Individual Education Program (IEP) with academic objectives aligned with Common Core Standards of Learning. Ezell and Klein-Ezell (2003) investigated the application of magic tricks in the classroom to improve self-esteem and self-confidence in children and adolescents with disabilities. Twenty-six students with various disabilities were selected for the study and

were evaluated pre-intervention with the Student Self-Confidence Scale (SSCS). Throughout the semester, participants were taught selected simple magic tricks based on their cognitive and physical capacities. At the conclusion of the semester, researchers conducted a post-intervention evaluation using the SSCS. Pre- and post-measures were analyzed employing a two-sample dependent t-test resulting in significant differences between the scores.

A 2013 multi-site study in Israel and the United Kingdom (Green et al., 2013) and Australian studies conducted in 2018 by OTs (Hines et al., 2018; Hines et al., 2019) investigated the functional outcomes of implementing a magic trick-themed approach to hand-arm bimanual intensive therapy for children with hemiplegia. Both studies found that children who participated demonstrated improved occupational performance and increased unimanual and bimanual skills. Green et al. (2013) reported that the magic trick-themed program for children with hemiplegia indicated positive results in bimanual use with improvements in independence sustained at a three-month follow-up. In a quantitative methods study, which included 23 children at sites in Israel and the United Kingdom, the Assisting Hand Assessment (AHA) and Children's Hand Experience Questionnaire (CHEQ) were administered as primary outcome measures, with evaluations occurring immediately before the first day, at the completion of the program, and three-months following the program completion. While a significant effect was achieved on the AHA, progress was not maintained during the three-months follow-up. However, the percentage of bimanual activities the participants performed using their affected hand, as measured by the CHEQ, progressed significantly pre- to post-treatment. Improvements were maintained at the three-month follow-up resulting in an increased application of bimanual activities from 25% before the intervention to 93% following and decreasing to 86% at the three-month follow-up. This study incorporated simple magic tricks as a motivating factor in a themed approach to traditional hand-arm bimanual intensive therapy.

In a quantitative methods study conducted by Hines et al. (2019), 28 children with unilateral cerebral palsy participated in a 10-day, 60-hour magic trick-themed hand-arm bimanual intensive therapy program (HABIT). Occupational performance was rated via the Canadian Occupational Performance Measure (COPM), and unimanual hand function was measured via the Assisting Hand Assessment (AHA) and Box and Blocks Test (BBT). Assessments were made four times: baseline (within two weeks of the start of the program), post-program (within one week of completing the program), three months, and six months. Results from the single group, pre-test, and post-test design found a significant difference in COPM, revealing a significant increase in scores from baseline to all follow-up times. No significant difference was found in scores for AHA, although eight children made a clinically meaningful improvement between baseline and post-program. The BBT revealed a significant difference in mean scores for participants' more-affected hand and less-affected hand. Participants indicated significant improvements in unimanual skills in their more-affected hand immediately after completing the magic trick-themed program and for both hands at the six-months interval.

Yuen et al. (2021) reported that adolescents with autism spectrum disorder (ASD) who participated in a three-week virtual magic camp program experienced improved social skills and self-esteem. In a pragmatic, nonrandomized, wait-list controlled trial study that included 17 children with ASD, the Social Skills Improvement System (SSIS) and Rosenberg Self-Esteem Scale (RSES) were administered to evaluate the immediate effect on enhancing social skills and self-esteem. Results of this study supported this hypothesis, and improvements were maintained at the one-month follow-up. The Yuen et al. (2021) study may be the first to evaluate the effects of a magic trick-themed intervention on social skills and self-esteem for children with autism.

Researchers concluded that additional studies should be conducted and identified three findings with implications for the field of occupational therapy: incorporating magic trick instruction into therapy sessions may strengthen social skills and self-esteem of adolescents on the autism spectrum, a magic trick-themed program guided by OTs may improve social skills and self-esteem, allowing OT graduate students to guide an organized magic trick-themed program may improve social skills and self-esteem in participants, and a magic trick-themed program may be appropriate as a supplementary service to school-based training programs for adolescents with autism. Finally, research has also shown that learning and performing simple magic tricks from the Hocus Focus Supplemental Curriculum (see Appendix A) can improve the cognition, motor skills, communication, social skills, and creativity of children and adolescents with disabilities (O'Rourke et al., 2018; Spencer, 2012; Spencer et al., 2020; Spencer et al., 2021; Yuen et al., 2021).

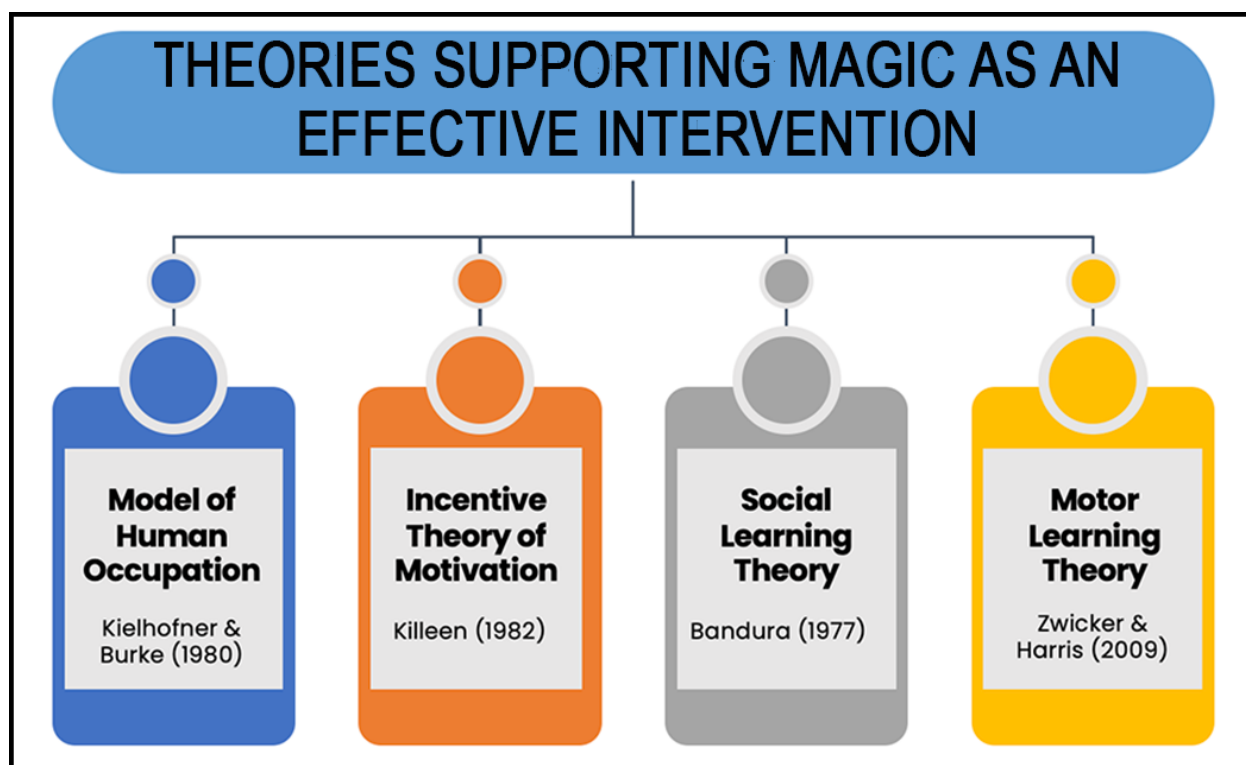
Theoretical Context

Several theories explain why learning to perform magic tricks is an effective intervention, illustrated in Figure 1 on page 25. The model of human occupation (Kielhofner & Burke, 1980) provides a framework that assists in understanding the therapeutic application of magic tricks. This theory identifies three interrelated sub-systems that are integral to human existence – volition, habituation, and performance. These components align in practice to motivation, process, and competency as a person engages in the learning of a magic trick. Additionally, the incentive theory of motivation (Killeen, 1982) substantiates the notion that learning and performing a magic trick offers one with a disability a unique skill that may not be copied by their peers, the ability to do something that their peers cannot. Social learning theory (Bandura, 1977) upholds the concept that performing a magic trick offers opportunities for positive social experiences and personal growth. In motor learning theory (Zwicker & Harris, 2009), the client

moves through three stages that are applicable to the activity of learning a magic trick – from a general understanding of the movements required (cognitive stage) to refining the execution of those movements through practice (associative stage) to mastery of the magic performance (autonomy stage). Each of these theories addresses the influence of motivation for the client in their therapeutic process. Motivation plays a role in learning as well as the social component of performance and mastery.

Figure 1

Theories Supporting Learning Magic as an Effective Intervention



Many researchers have examined the benefits of arts integration (Edelen, 2020; Lilliedahl, 2018; Miller & Bogatora, 2018; Reck & Wald, 2018; O'Rourke et al., 2018); however, only a limited number of studies have been conducted to investigate the application of a magic trick-themed, arts-integrated intervention with a special education population (Balmer, 2020; Müller, 2019; O'Rourke et al., 2018; Spencer, 2012; Wiseman & Watt, 2020). In addition,

relatively few studies have considered the factors that may influence teachers' and pre-service teachers' decisions to implement arts integrated approaches (Hipp & Sulentic Dowell, 2019). No studies were found that identified the probing of perceptions, attitudes, or knowledge of occupational therapists on the application of an arts-integrated, magic trick-themed intervention. This knowledge gap is worthy of investigation. Their perspective is central to gaining a more robust and meaningful understanding of the influential factors in the innovation-decision process because it may inform stakeholders of changes, adaptations, and modifications that must be addressed to facilitate the competent and confident implementation of novel, evidence-based, arts-integrated practices in the special education setting (Aspers, 2015; Rogers, 2003). Identifying and reflecting on these factors will add to the body of knowledge by clarifying and strengthening how research findings are disseminated and encourage more opportunities for special educators and SBOTs to consider novel, arts-integrated interventions (Hipp & Sulentic Dowell, 2019; Reck & Wald, 2018). The missing component of the literature is an examination of the factors that may influence a practitioner's decision to adopt or reject this novel magic trick-themed intervention for this population.

Problem Statement

A literature review reveals a gap in what researchers find in their studies and the practices that are often implemented in educational settings. This is especially true among those who work with diverse learners and students with disabilities (Carnine, 1997; Grima-Ferrell, 2018; Vanderlinde, 2013). While practitioners disclose their willingness to apply these techniques, they suggest they must be trustworthy, useable, and accessible (Carnine, 1997; Vanderlinde, 2013). Carnine (1995) defined these terms as follows: *trustworthiness* determines the level of confidence with which a practitioner can act on research findings; *useability* addresses the likelihood that an approach will be adopted by those who teach or provide services to students,

and *accessibility* addresses the ease and speed by which the practitioner can obtain findings and extract appropriate information. One evidence-based practice that is often ignored or rejected by special educators and SBOTs is arts integration. Yet, there is an abundance of research that supports the application of the arts in delivering both functional and academic content to students with disabilities (Brown & Vaughan, 2009; Buck & Snook, 2020; Burnaford, 2007; Fiske, 1999; Goldberg, 2021; Lilliedahl, 2018; Müller, 2019). The problem is practitioners who work with students with disabilities disclose their willingness to implement evidence-based techniques yet rarely integrate arts-based interventions in their practice (Carnine, 1997; Vanderlinde, 2013); more specifically, there is a hesitancy or resistance to adopting an intervention that focuses on the application of magic tricks in therapeutic settings. The literature has not addressed practitioners' experiences that may influence this decision.

Purpose Statement

The purpose of this hermeneutic phenomenological study was to examine the lived experiences of graduate OT students in the delivery of a magic trick-themed intervention in their fieldwork to gain a deeper understanding of the factors that may influence their decision to adopt or reject this approach. Rogers (2003) theorized there are five essential qualities of an innovation that are influential in its adoption. These are *relative advantage*, the degree to which an innovation has an advantage over the previous method; *compatibility*, the degree to which an innovation is relevant and appropriate to the values and experiences of the potential adopter; *complexity*, the degree to which an innovation is categorized on a complexity-simplicity continuum and is regarded as easy or difficult to understand and implement; *trialability*, the degree to which an innovation may be tried before being fully put into practice; and *observability*, the degree to which the adopter can observe the positive outcomes of an innovation (Rogers, 2003; Scott et al., 2008).

Participants were graduate occupational therapy students who are enrolled in Fieldwork Experience 1 or Non-Thesis Research and participating in an annual therapeutic magic camp program hosted by a research-intensive university in a southern state of the United States. The aim was to gather and examine the essence of the OT students' experiences with this technique – the totality of their individual encounters and involvement with and through the magic trick-themed intervention (Dahlberg, 2006), the essential meanings that illuminate their unique experiences with the phenomenon including their anxieties, concerns, successes, hopes, surprises, and reflections. This was accomplished through qualitative methods of interview, journal entries, and focus groups. Their experiences were analyzed through the theoretical framework of innovations theory with an aspiration of adding to the body of literature associated with bridging the research-practice gap as it relates to arts-integrated interventions, specifically magic tricks, that may be applicable in academic and therapeutic settings.

Significance of the Study

This study has practical significance for researchers, higher education professors and instructors, professional development providers for educators, continuing education trainers for occupational therapy practitioners, special educators, and SBOTs. For researchers, this study may reveal more effective ways to disseminate research findings to make them more accessible and respectful to practitioners. For providers of continuing education and professional development, this study may reveal better methods of delivering research findings that encourage collaboration between special educators and related services providers. It may also initiate more creative approaches for interactive learning experiences for practitioners. Engaging in these experience may motivate them to explore the advantages of newly discovered, evidence-based practices, demonstrate the ease with which they can be implemented, and extrapolate potential positive outcomes for their students. When innovative, research-based practices are not

implemented in classroom instruction or therapeutic activities, students with disabilities are not afforded neoteric opportunities that may significantly improve their functional and academic skills. Special educators and SBOTs also fail to benefit from opportunities for professional growth and development, including efficacy, proficiency, and satisfaction (Spencer, 2012).

Research Questions

This study focused on the lived experiences of graduate OT students in implementing an arts-integrated intervention in their fieldwork. It sought to investigate the quintessence of their whole experience while applying a hermeneutic phenomenological research design guided by the theoretical framework of diffusion of innovations theory. The aim was to interpret and understand the factors that may influence how and why an arts-integrated EBP is adopted or rejected by the participants. Data were collected directly from the graduate OT students to address the following central research question and associated sub-questions.

Central Research Question

What are the lived experiences of graduate OT students in the delivery of a magic trick-themed intervention?

Sub-Question One

How are *relative advantage* and *complexity* of this magic trick-theme intervention interpreted by the graduate OT student?

Sub-Question Two

How did the graduate OT students interpret the importance of *trying* the magic trick-themed intervention?

Sub-Question Three

How is this magic trick-themed intervention *compatible* with the personal and professional values of graduate OT students?

Sub-Question Four

What are the perceived *outcomes* of this magic trick-themed intervention by the graduate OT student that may influence their decision to adopt or reject this approach?

Definitions

The terms and definitions listed below are relevant to this study and are grounded in the literature related to the topic, theoretical framework, or research design.

1. *Evidence-based practice* (EBP) – Educators use different terms to refer to instructional practices supported as effective by scientific research, such as evidence-based practices, research-based practices, and empirically validated practices (Cook & Cook, 2013).
2. *Individual Education Program or Plan* (IEP) – Each public-school child who receives special education and related services must have an Individualized Education Program (IEP). Each IEP must be designed for one student and must be a truly *individualized* document. The IEP creates an opportunity for teachers, parents, school administrators, related services personnel, and students (when appropriate) to work together to improve educational results for children with disabilities. The IEP is the cornerstone of quality education for each child with a disability (US Department of Education, 2019, item 2.).
3. *Magic Trick-Themed Intervention* – A research-based, systematic, manualized approach that incorporates simple magic tricks into academic and therapeutic activities.
4. *Occupational therapist (OT)* – Occupational therapy practitioners enable people of all ages to live life to its fullest by helping them promote health and prevent—or live better with—injury, illness, or disability. They have a holistic perspective, in which the focus is

on adapting the environment or task to fit the person, and the person is an integral part of the therapy team. It is an evidence-based practice deeply rooted in science (American Occupational Therapy Association, 2021).

5. *Practice-based Evidence (PBE)* – PBE refers to the process where real-world practice is documented and measured just as it occurs with an emphasis on measurement and tracking, not controlling how the practice is delivered (Swisher, 2010).
6. *Research-to-practice gap (RPG)* – The research-to-practice gap refers to the discrepancy between (a) findings of high-quality research regarding which practices are and are not effective and (b) the actual practices implemented in schools and classrooms (Chi 2021; McGann et al., 2020).
7. *School-based Occupational Therapy (SBOT)* – School-based occupational therapy practitioners are occupational therapists (OTs) and occupational therapy assistants (OTAs) who use meaningful activities (occupations) to help children and youth participate in what they need or want to do to promote physical and mental health and well-being (American Occupational Therapy Association, 2017).

Summary

Researchers have created a robust knowledge base of instructional practices and interventions that support students with disabilities. Notwithstanding, the literature reveals a substantial gap between interventions that are proven effective to help these students and the degree to which these practices are successfully implemented (Grima-Ferrell, 2018). Special educators and school based occupational therapists need to be confident and competent in delivering evidence-based practices if students with disabilities are expected to master standards-based content and develop the skills necessary for success in and out of school (Hott et al., 2017).

Practitioners disclose their willingness to use EBPs, but their words are not always supported by their actions (Carnine, 1997; Grima-Ferrell, 2018; Vanderlinde, 2013).

Few studies exist that investigate the factors that may be directly associated with the hesitancy or reluctance of practitioners in the field of special education to implement an EBP (Grima-Farrell, 2017; Grima-Farrell, 2018). Many who work in special education acknowledge a lack of trust in research or researchers (Nelson et al., 2009). This distrust is often a result of how research findings are disseminated (Cook et al., 2013). Conclusions are often communicated through statistical analysis and scientific language, rendering the information confusing and inaccessible to most practitioners (Carnine, 1997; Cook & Farley, 2019). Instead, many practitioners rely on the practice-based evidence they acquire from their classroom experiences and consider it more reliable than research-based evidence (Cook & Cook, 2016; Cook & Farley, 2019; Simons et al., 2003).

One evidence-based practice that has received a great deal of attention from special education researchers over the last three decades is the application of the arts in delivering functional and academic curriculum (Brown & Vaughan, 2009; Buck & Snook, 2020; Burnaford, 2007; Fiske, 1999; Goldberg, 2021; Lilliedahl, 2018; Müller, 2019; Spencer, 2012). However, these innovative practices provide little opportunity for implementation and diffusion in the field of special education if researchers are unable to convince practitioners that they offer advantages over more traditional methods, are user-friendly, and can demonstrate positive outcomes (Cook et al., 2013; Rogers, 2003; Scott et al., 2008).

The purpose of this hermeneutic phenomenological study was to examine the lived experiences of graduate OT students in the delivery of a magic trick-themed intervention in their fieldwork to gain a deeper understanding of the factors that may influence their decision to adopt or reject this approach. The findings may be of value to researchers, higher education professors

and instructors, professional development providers for educators, approved continuing education providers for occupational therapy practitioners, special educators, and school-based occupational therapists.

CHAPTER TWO: LITERATURE REVIEW

Overview

The purpose of this hermeneutic phenomenological study was to examine the experiences of graduate occupational therapy (OT) students who delivered a magic trick-themed intervention to adolescents with disabilities in their fieldwork to determine what factors may influence their adoption or rejection of the intervention in their future practice. Practitioners who work with students who present with disabilities disclose their willingness to utilize evidence-based methods yet rarely integrate arts-based interventions in their practice (Carnine, 1997; Vanderlinde, 2013). Analyzing these experiences may help identify the factors that influence their decision to adopt or reject this arts-based intervention.

A systematic review of the literature was conducted to explore the factors that may influence pediatric occupational therapists in the adoption or rejection of a new, arts-integrated intervention for school-based programs. This chapter presents a review of the current literature related to the topic of study. In the first section, the theory relevant to the adoption or rejection of innovations will be discussed. The following section synthesizes the recent literature appropriate to arts integration in education, the arts in medicine movement, and the rise of creative arts therapies. Finally, the chapter concludes with an objective analysis of the literature pertaining to a magic trick-themed methodology applicable to children with disabilities, an examination of the role of occupational therapists in the education system, the factors that may influence their adoption or rejection of this new technique, and consideration of potential explications that may be instrumental in closing this gap in practice.

Theoretical Framework

Phenomenology is a philosophical framework that focuses on observing and describing the world from the observer's perspective to understand better the human experience (Berghofer, 2019; Lavery, 2003 Rasmussen, 1998; Sheehan, 2014). Meaning and significance are at the center of phenomenology (Moerer-Urdahl & Creswell, 2004). Qualitative researchers apply inductive reasoning to pursue understanding and meaning from the data. Since the purpose of this research was to discover meaning, a phenomenological approach was the most appropriate method.

Hermeneutic phenomenology embraces prior experience, assumptions, and preconceptions, referred to as foresight or fore-conception, inviting the researcher to employ self-reflection and contemplate his or her own experiences as they relate to the phenomenon under investigation (Heidegger, 1962; Horrigan-Kelly et al., 2016; Lengyel, 2018; Sloan & Bowe, 2013). Hermeneutic phenomenology is the specific approach to phenomenology selected for this study because it permits the integration of theoretical frameworks as perspectives through which one could perceive the phenomenon being studied (Horrigan-Kelly, 2016; Lavery, 2003; Sloan & Bowe, 2013). Consequently, the primary theory employed in this study was the diffusion of innovations theory advanced by Rogers (2003). This theory provided insights into the factors that influence practitioners' adoption or rejection of a new intervention.

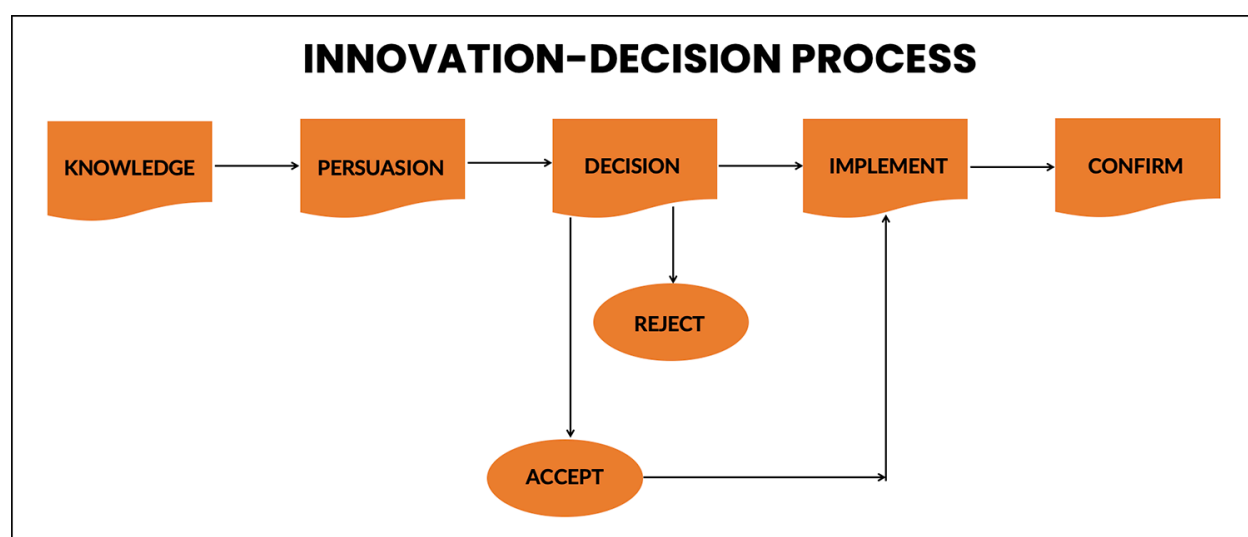
Diffusion of Innovations

Diffusion of innovations theory promotes that innovations are accepted and adopted by an identified population through a defined process. The theory has evolved from its introduction by Rogers in 1962. The theory outlines how new ideas, technologies, and practices (described as innovations) are accepted and adopted in specialized or identified communities or societies. Diffusion, or spreading, succeeds or fails based on the innovation-decision process. According to

Rogers (2003), the process consists of five stages. These stages are outlined in Figure 2, *Five Stages of the Innovation-Decision Process*, and consist of (1) *knowledge*, exposure to the innovation, and some understanding of how it operates; (2) *persuasion*, development of a favorable or unfavorable attitude toward the innovation; (3) *decision*, engagement that leads to adopting or rejecting the innovation; (4) *implementation*, the application of the innovation in practice; and (5) *confirmation*, seeking reinforcement of the decision.

Figure 2

Five Stages of the Innovation-Decision Process



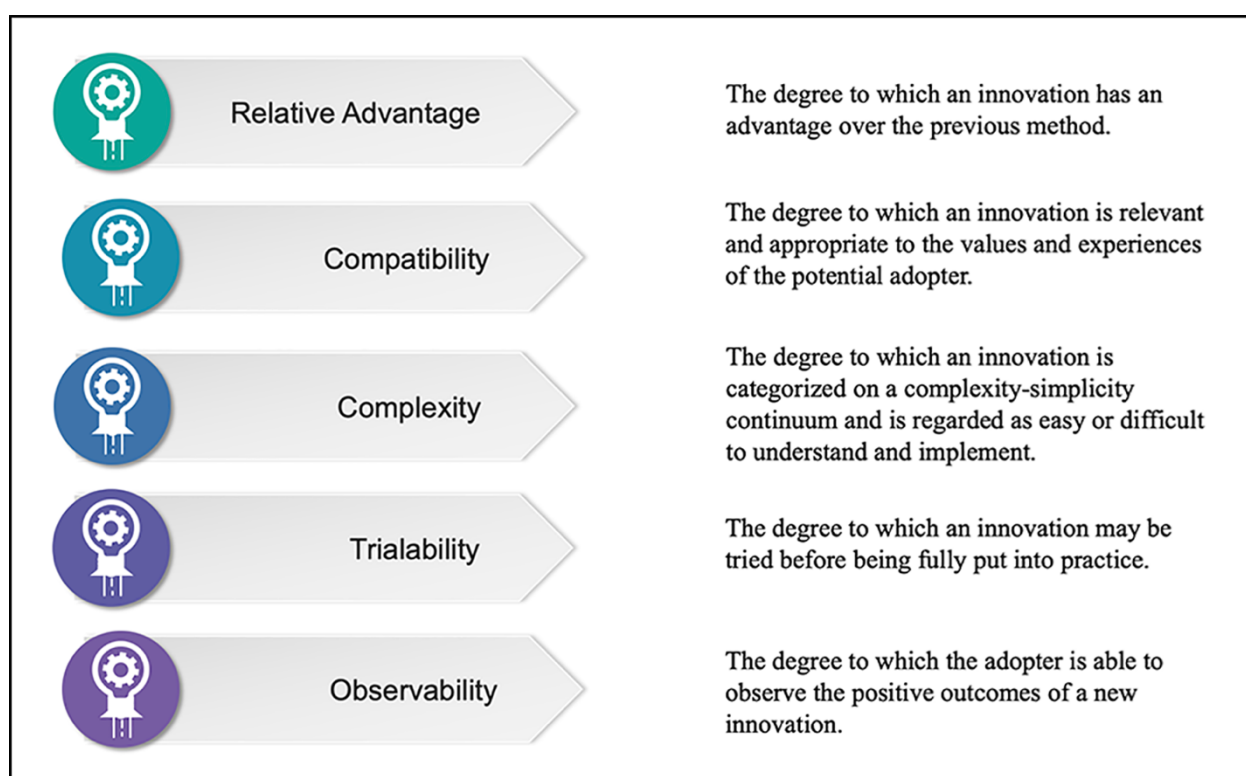
Note. Rogers, 2003

This theory also posits that five characteristics of an innovation influence whether it will be adopted or rejected by a specialized or identified community (Rogers, 2003; Scott, Plotnikoff, Karunamuni, Bize, & Rodgers, 2008). These characteristics are outlined in Figure 3 on page 37, *Core Attributes of Diffusion of Innovations*. They are *relative advantage*, the degree to which an innovation has an advantage over the previous method; *compatibility*, the degree to which an innovation is relevant and appropriate to the values and experiences of the potential adopter; *complexity*, the degree to which an innovation is categorized on a complexity-simplicity

continuum and is regarded as easy or difficult to understand and implement; *trialability*, the degree to which an innovation may be tried before being fully put into practice (experiential learning); and *observability*, the degree to which the adopter can observe the positive outcomes of an innovation (Rogers, 2003; Scott et al., 2008). Thus, innovations that meet these criteria will be adopted more expeditiously than other innovations.

Figure 3

Core Attributes of Diffusion of Innovations



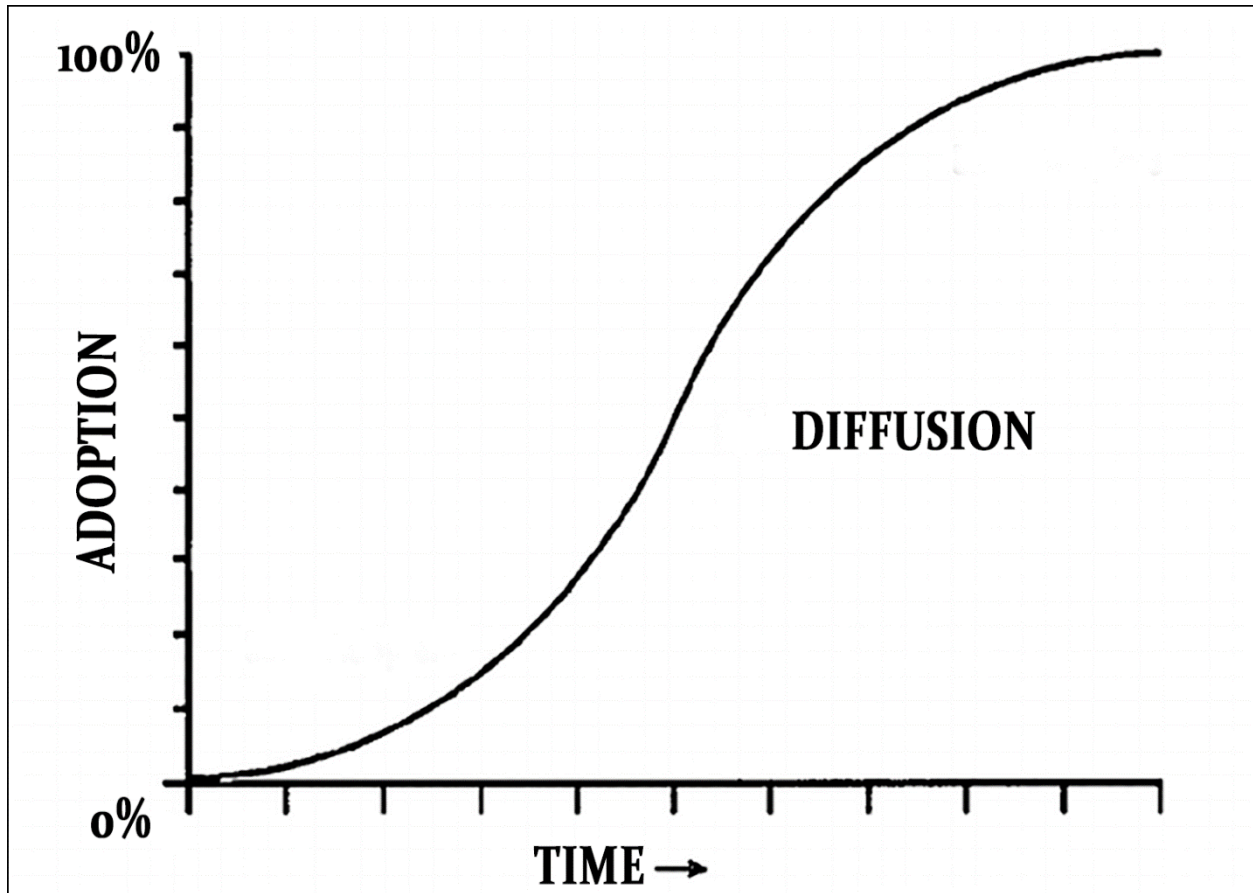
Note. Rogers, 2003.

Early on in diffusion research, there was no standard classification system to describe adopters of an innovation. This hindered researchers in their ability to compare their findings and emphasized a need for standardization. One reoccurring or dominant position was the S-shaped curve of innovation adoption. The curve demonstrated that diffusion emerged with a few

adopters, accelerated until half of the individuals in a system had adopted, which led to a slower rate of increase as fewer people adopted the innovation. Diffusion research has consistently produced this S-curve in adopting innovations beginning with the hybrid corn seed study at Iowa State University in Ames, Iowa (Ryan & Gross, 1943). In the hybrid corn seed study, researchers examined the sociological factors influencing the diffusion and adoption of hybrid seed corn by Iowa farmers. Two hundred and fifty-nine farmers who met specific criteria were interviewed to determine the first year they chose to plant hybrid corn seed (adopt the innovation) on their acreage. Comparing the acceptance sequence of hybrid seed initiated the conceptualization of the diffusion of innovations theory (Ryan, 1948; Ryan & Gross, 1943) and the culminative frequency curve of acceptance among the farmers revealed an S-curve (Ryan, 1948) as illustrated in Figure 4 on page 39, *Diffusion S-Curve*. Several other rural sociologists continued to investigate the concept of diffusion, eventually joining with other scholars to explore agricultural diffusion research (Rogers, 2003). Rogers analyzed the diffusion of agricultural innovations in rural communities and found similar results in the S-curve of adoption among the studies (Rogers, 1962). The field of diffusion research continued to spread to academic disciplines where researchers studied the diffusion of news events, educational innovations, and public health initiatives. These studies assisted in the identification of stages of adoption as well as groups or categories of adopters (Rogers, 1962; Ryan, 1948; Ryan & Gross, 1943).

Figure 4

Diffusion S-Curve



Note. Mahler & Rogers, 1999

In the 1980s, the diffusion model was applied to the STOP AIDS program in San Francisco. At that time, approximately 40% of the male population in San Francisco was gay or bisexual. As HIV began to spread through the community, gay men's organizations organized efforts to prevent the spread. Unfortunately, by that time, 48% of the gay and bisexual population were already infected (Wolfeiler, 1998). Combining a small group strategy with the diffusion model, organizations recruited HIV-positive individuals to lead small group meetings (10 to 12 men) to disseminate knowledge on safer sex practices and the means of HIV transmission. Meetings concluded with a commitment by those in the group to organize and lead other small groups to share their knowledge and persuade others to practice safer sex (Singhal & Rogers, 2003). The hope was to reach critical mass through the efforts of opinion leaders in the gay

community and influence the target population in San Francisco. The approach of employing small groups to recruit leaders who would then organize other small group meetings is a self-sustaining diffusion process. The STOP AIDS Project successfully trained more than 7,000 individuals who reached more than 30,000 gay and bisexual men in San Francisco. As a result, new HIV infections per year decreased from 8,000 in 1983 to 650 in 1985. In addition, the rate of unprotected anal sex declined from 71% in 1983 to 27% in 1987, resulting in the number of AIDS-related deaths per year decreasing from 1,600 to 250 in recent years (Singhal & Rogers, 2003). The STOP AIDS program demonstrated the effectiveness of diffusion theory and the sociological factors that influence adoption of an innovation.

To further standardize the language of diffusion, Rogers (2003) identified five categories of adopters or ideal types. These are conceptualizations based on abstractions from empirical investigations designed to make comparisons between adopters possible. The first category is *innovators*, those who actively seek out new ideas (the venturesome). Rogers (2003) described them as more global in their thinking, in control of significant financial resources, able to understand and apply technical knowledge and manage the uncertainty about an innovation when adopted. The innovator is a gatekeeper in the flow of new ideas and launches them within the system by importing them outside its borders. Thus, the innovator performs an essential role in the diffusion process and is the first group indicated on the S-curve (Rogers, 2003).

The second category is *early adopters*, opinion leaders, and those individuals in leadership roles who embrace change (the respected). These individuals are more integrated into the system than are the innovators. Rogers (2003) emphasized that this category of adopters maintains the most significant degree of respect and opinion leaders within a system, often considered the “go-to person” for advice and information. They are respected by their peers and

colleagues and strive to keep that position by making wise and insightful innovation decisions. Adopting an innovation decreases uncertainty for others and communicates a subjective evaluation to their closest peers through interpersonal networks. Early adopters are the first significant group indicated on the S-curve.

The third category is *early majority*, typically not leaders but those who are willing to adopt new ideas when presented with evidence of their success (the deliberate). Rogers (2003) described these individuals as experiencing more frequent interactions with their colleagues, making them an essential link in the diffusion process. This category comprises about one-third of the members of a system and is characterized as often deliberating longer before adopting an innovation. They are measured and intentional followers, but they rarely lead. This group is critical in the diffusion process, leading to critical mass, and is represented in the mid-section of the S-curve.

The fourth category is *late majority*, those who are skeptical of change but eventually adopt when supported by the majority (the skeptical). Rogers (2003) described these individuals as cautious, motivated either by economic necessity or the pressure of their peers in the adoption of an innovation. They also comprise about one-third of the system members but do not adopt until most of the members of the system have adopted. Thus, the late majority comprises the majority of the upper third of the S-curve.

The fifth and final category is *laggards*, those who are highly skeptical and conservative in their approach (the traditional). This category is the last group to adopt an innovation in a social system. Rogers (2003) described these individuals as isolated in the social system with almost no opinion leadership and resistant to change. They are highly cautious and require certainty that an innovation will not fail before they can consider adoption. Their relationships

within the system are primarily with those who similarly think and act. Some argue that “laggard” is not an appropriate name for this category because it presents negative connotations; however, Rogers argued that no disrespect is intended. Any term for this category would be interpreted as unfavorable. Rogers (2003) stated, “system-blame may more accurately describe the reality of the laggards’ situation” (p. 265). This group is indicated in the top flattening of the S-curve.

It is crucial to recognize that the S-curve is system-specific and innovation-specific. Some innovations, for example, the STOP AIDS Project, are unique to a particular population. As a result, the S-curve may only exist within a specific social system and not the at-large population. This comparison directly relates to this research because school-based occupational therapists are also a system-specific social network, and their adoption of a magic trick-themed intervention would follow a similar distribution.

Theoretical Summary

According to Rogers’ diffusion of innovations theory (2003), intent is guided by knowledge and persuasion. Ultimately, intent leads to the decision to implement an innovation. This study examined the influence of intent, from the perspective of graduate occupational therapists engaged in fieldwork, as a potential factor in the decision to adopt an arts-integrated technique.

In this study, it was elementary to identify *the innovators* in the categories of adopters outlined by Rogers (2003). The gatekeepers were the chair of the occupational therapy program and the instructors of Fieldwork Experience 1 and Non-Thesis Research courses. However, identifying the remainder of the categories was more challenging: (a) which students were more excited about this approach when learning of its application (early adopters)?, (b) which students

demonstrated enthusiasm in the delivery of the intervention in their fieldwork (early majority)?, (c) which students changed their attitude and beliefs about the intervention because of their experiences during their fieldwork (late majority)?, and (d) which students remained on the periphery of the cohort and reluctantly implemented the magic trick-themed intervention? Identifying these categories and understanding the reasons for their response was vital in determining findings appropriate to the research questions posed.

Heidegger's hermeneutic circle will be employed to examine the lived experiences of the graduate OT participants in the delivery of the magic trick-themed intervention. In this process, understanding is not linear; instead, it is revealed by transitioning from the phenomenon that is to be understood to the personal interpretations of the researcher and back to the phenomenon (Heidegger, 1971). Thus, consideration will be granted to the whole of their experiences, analyzed to discover common themes identified through the concept of diffusion of innovation theory, and synthesized to gain a deeper, richer understanding of the whole experience with the phenomenon. This process related to the research because it was instrumental in identifying factors that may influence the adoption or rejection of the intervention by the participants.

Related Literature

The related literature includes a review of existing knowledge pertaining to arts in medicine, attending to the definition, the history and evolution, and how the arts are currently applied in healthcare environments. It continues by considering the role of occupational therapists in the education system. The related literature also examines the factors that influence the adoption or rejection of a new intervention, and an examination of a novel, magic trick-themed approach for children with disabilities.

Arts in Medicine

Cultures around the world have incorporated the arts in their healing practices for centuries (Clift & Camic, 2016). There are scientific considerations in the mental process and actions of the physician (Sigerist, 1936); however, medicine is often referred to as an art. A physician requires more than knowledge in the practice of medicine. They must also be skillful in applying that knowledge, which involves some aspect of intuition (Sigerist, 1936). When one considers medicine as an art, it merely refers to the physician's skill. The Greeks regarded the practice of medicine as *techne* (the Greek word translated as 'craft' or 'art'), "the physician an artisan, a craftsman, like the shoemaker, the painter, the sculptor" (Sigerist, 1936, p 272).

In more recent years, the influence of the arts in the broader milieu has gained an appreciation in therapeutic and healthcare interventions (Clift & Camic, 2016). There has been an increasing number of national and regional organizations dedicated to arts and health across North America, Europe, Scandinavia, and Asia (identified as *the innovators* in diffusion theory). Approximately half of the hospitals in the United States employ therapists who are trained and certified in an art discipline and employ their artistry as a modality to assist patients in achieving specific therapeutic goals (UAB Medicine, 2021). The Center for Arts in Medicine at the University of Florida is a leader in the arts in medicine movement and is considered both an *innovator* and *early adopter* of arts integration in healthcare. It was established in 1996 with a three-fold mission: (a) to embrace education and training in the implementation of the arts to strengthen health, (b) to encourage research of the arts in medicine, and (c) to engage in outreach to advance art and creativity as encouragement for healthy lifestyles (UF College of the Arts, 2021).

The University of Alabama at Birmingham (UAB) piloted an arts-in-medicine program in 2013, the first in Alabama (*early adopter*), and has rapidly become a leader in the field through

its collaboration with UAB Medicine, UAB Visual and Performing Arts, and Children's Hospital of Alabama. In their partnership, each of these institutions would be categorized as *early majority* in diffusion theory. Since 2016, UAB's Institute for Arts in Medicine (AIM) has collaborated with the Center 4 Creative Arts (*innovator* and *early adopter*) and UAB's School of Health Professions Department of Occupational Therapy (*early majority*) on several projects, including an annual therapeutic magic camp for children and adolescents with disabilities. AIM has served over 125,000 people in three hospitals since its inception and maintains a team comprised of seven artists-in-residence, one art therapist, and three music therapists.

Creative Arts Therapies

Creative arts therapies encompass a variety of arts-based approaches, including visual arts, music, dance and movement, creative writing, and performance and drama (Malchiodi, 2019). In the late twentieth century, these approaches became more formalized as methods to “improve and enhance the psychological and social well-being of individuals of all ages and health conditions” (Shafir et al., 2020, p. 1). These methods recognize the idiosyncraticity of the therapeutic process and are grounded in developmental theory, motor learning theory, trauma theory, and biopsychosocial models (Bailey, 2021; Spencer & O'Rourke, 2018; Westrhenen & Fritz, 2014). Music, art, dance, and drama therapists maintain professional associations that govern their disciplines' clinical and evidence-based practices. Creative arts therapists practice in hospitals, educational institutions, prisons, hospices, mental health facilities, and private practice (Shafir et al., 2020). These practitioners would all be categorized as *early majority* by Rogers (2003) and are now *innovators* within their respective fields.

Clinical Use of Magic Tricks

As a creative arts therapy, the application of magic tricks offers both passive and active therapeutic benefits. Watching a magician perform – a passive approach – can provide a valuable distraction for children or adolescents in the hospital. However, when magic tricks are taught to a client for specific purposes related to a physical or psychosocial diagnosis, this active approach is a therapeutic intervention. Within this context, magic therapy is defined as a “carefully designed, systematic approach to the therapeutic use of simple magic tricks in a clinical setting” (Magic Therapy, 2020). It requires training and evaluation to ensure the implementation of the treatment is performed with competence and fidelity (Spencer et al., 2019; Spencer & Yuen, 2019).

Passive benefits. Demonstrating magic tricks has been utilized with pediatric clients to aid in the reduction of anxiety, build rapport and trust, increase environmental mastery, provide opportunities for choice and autonomy, and improve effect and self-concept for children and adolescents (Baum & Dooley, 2012; Lam et al., 2017; Pravder et al., 2019; Sokol, 2008). These are all strengths worthy of additional research; however, the study conducted focused on the student occupational therapist’s experience with magic tricks as an active therapeutic approach in consideration of the core attributes of an innovation described by Rogers (2003) – *relative advantage, compatibility, complexity, trialability, and observability*.

Active benefits. Magic tricks have been implemented to help clients improve cognition, motor skills, communication, social skills, and creativity (O’Rourke et al., 2018; Spencer, 2012). The application of magic in a clinical setting can be traced to the late 1950s, when a small group of magicians organized the National Committee for Therapy Through Magic, a consortium that encouraged entertainers to collaborate with physicians to teach magic tricks to their patients (Lopez, 1957). In the early 1980s, magician David Copperfield collaborated with occupational

therapist Julie DeJean to develop Project Magic (Project Magic, 2019), a program that encouraged amateur magicians to volunteer efforts to teach magic tricks to clients in a hospital setting under the supervision of occupational therapists. In pursuing a more sustainable approach, Spencer (Magic Therapy, 2020) designed a systematic, manualized program for the therapeutic use of magic tricks in a clinical setting aimed at training occupational therapists rather than volunteer magicians to execute this technique (*innovator* and *gatekeeper*). No substantive research has been conducted to determine if this approach is more effective than employing volunteer, amateur magicians, but it is hypothesized that because occupational therapists exhibit a greater understanding of the cognitive and motor processes required to learn and perform a magic trick, they may be more competent in delivering this technique as a therapeutic intervention. Providing training to OTs on carefully selected magic tricks (see Appendix B) that can be utilized to help clients reach specific therapeutic goals strategically aligns to the first two stages – *knowledge* and *persuasion* – of Rogers’ theory (2003).

Open Heart Magic was created in 2003 by magician Michael Walton to teach magic tricks to hospitalized children as a coping strategy (Hart & Walton, 2010). Walton began as a volunteer in a hospital who performed magic tricks at pediatric patients’ bedsides and involved them in his performance. While no scientific research exists to support this approach, there is anecdotal evidence that these interactions were empowering for pediatric clients as child life staff recognized an increased level of excitement and engagement as well as improvements in self-esteem, even among some of their most challenging patients (Hart & Walton, 2010).

Magic-AID was founded in 2007 by two medical students, David Elkin and Harrison Pravder, to train other medical students and health practitioners to perform simple magic tricks for pediatric clients and their families to reduce stress and anxiety during a hospital stay. In a

2019 study, Pravder et al. randomly assigned children in the general pediatric ward at a university-based children's hospital in the northeast to participate in a study designed to measure a reduction in anxiety. A total of 196 patients were assessed for eligibility, and 96 did not meet eligibility requirements or declined to participate. The remaining 100 patients participated in the study and were randomly assigned to the intervention and control groups.

Three anxiety evaluation instruments were administered to quantify patient anxiety prior to the treatment – the Venham Picture Test, Facial Image Scale, and short State-Trait Anxiety Inventory. After a baseline anxiety survey of both groups, the intervention group participated in approximately 15 minutes of magic trick-themed activities, which included a medical student who was trained in the protocol performing three or four magic tricks followed by teaching one of the tricks to the child. A follow-up anxiety survey was administered within three minutes of the magic activity. The control group did not engage in a magic trick-themed activity, and the follow-up anxiety survey was administered approximately 30 minutes after the baseline survey.

There were no significant differences in the baseline anxiety survey between the two groups. A paired *t*-test between the baseline survey and second follow-up was employed to evaluate differences in anxiety. All tests of significance were two-sided and evaluated at $p=.05$. Within the magic intervention group, there were significant decreases in pre-intervention to post-intervention measures. The intervention standardized anxiety score measured a reduction in anxiety of 25%, a decline that was significantly different from that of the control group ($p = .001$). The findings of this study indicated that implementing a magic trick-themed activity with pediatric clients may significantly reduce inpatient anxiety in the immediate time period and suggested an extended time benefit of approximately an hour after the activity (Pravder et al., 2019).

Lastly, in the United Kingdom, Breathe Arts Health Research developed a Magic Therapy Initiative that focuses on teaching magic tricks to children with hemiplegia through participation in a 60-hour, hand-arm bimanual intensive therapy program over two weeks (Breathe Arts Health Research, 2015). Green et al. (2013) investigated the effects of a magic trick-themed program for children with hemiplegia in Israel and the United Kingdom. Twenty-three children with spastic hemiplegia participated in a summer therapeutic magic camp program. Primary outcome measures included Assisting Hand Assessment (AHA) and Children's Hand Experience Questionnaire (CHEQ), both internationally validated instruments. A within-participant experimental design was employed, and assessments were conducted on the first and last days of camp with a three-month follow-up. The AHA revealed a significant effect of the intervention ($F(2,19) = 8.87, p = 0.002, \eta^2 = 0.48$), with posthoc analysis showing main differences occurring between pre-camp and post-camp. The CHEQ also revealed a significant effect of intervention with participants demonstrating an increase in the independent performance of bimanual activities pre- to post-camp ($F(2,19) = 12.93, p < 0.001, \eta^2 = 0.58$); however, these changes were maintained at three months follow-up. Before participation in the therapeutic magic camp, 25% of the activities measured by the AHA and CHEQ were completed using the participants' affected hands. The post-camp evaluation showed an increase to 93%, decreasing to 86% at three months follow-ups. These studies suggest that a magic trick-themed approach for pediatric clients in a clinical setting may improve engagement and self-esteem, reduce anxiety, and improve motor skills.

Learning magic tricks has been formally utilized as a therapeutic technique since the early 1980s (Lam et al., 2017; Spencer, 2013; Wiseman et al., 2021). A recent review of the literature (Lam et al., 2017) revealed that the application of magic tricks had been employed in a

clinical setting to improve upper limb function in children with unilateral cerebral palsy through repetitive action of practicing the magic tricks (Green et al., 2013; Hines et al., 2018; Hines et al., 2019), strengthen social competence of children with high functioning autism through the development of appropriate social interaction skills (Spencer, 2012), enhance the emotional well-being of children with developmental disabilities through the improvement of self-esteem and self-confidence (Ezell & Klein-Ezell, 2003; Spencer et al., 2021b; Wiseman et al., 2018; Wiseman et al., 2021), and improve cognitive skills and executive functioning skills through organizing, remembering, and sequencing in the performance of magic tricks (Spencer, 2012).

Many professional medical associations provide opportunities for members to submit poster presentations on their research. The purpose of these presentations is to offer a concise overview and dissemination of the results of clinical and scientific research (Goodhand et al., 2011). Often, associations recognize exceptional presentations by awarding first, second, and third place prizes based on the originality of the research and its significance to the field (American College of Rehabilitation Medicine, 2021). Fieldwork on magic trick integration and traumatic brain injury won the first poster prize at the Canadian Association of Physical Medicine and Rehabilitation Meeting in Toronto (Kwong, 2007). Research involving magic tricks as an intervention for mental health diagnoses won the first poster prize at the International Mental Health Conference in Hong Kong (Sui & Sui, 2007). Research involving magic tricks as a themed approach to hand-arm bimanual intensive therapy for children with hemiplegia won the first poster prize at the European Academy of Childhood Disabilities Conference (Green et al., 2013). Additional studies have demonstrated significant physical and psychosocial results in children and adolescents with disabilities (Green et al., 2013; Hines et al., 2019; Schertz et al., 2016; Spencer et al., 2019; Weinstein et al., 2015). These studies represent the work of *early*

adopters of the magic trick-themed intervention guided by *knowledge* and *persuasion* which led to *decision*, *implementation*, and *confirmation* – the stages of the innovation-decision process (Rogers, 2003).

Magic Therapy™ Program

Perhaps the most comprehensive and prevalent therapeutic, magic trick-themed program is Magic Therapy™, formerly the Healing of Magic (magcitherapy.com). Founded in 1988, the organization changed its name to Magic Therapy™ in 2018 to align with other creative arts therapy approaches (e.g., music therapy, drama therapy, art therapy, and dance therapy). The first edition of the *Healing of Magic Manual* was published in 1989 to provide occupational therapists with extensive information necessary for applying this technique. A fourth edition is currently available to therapists as a digital resource through the organization's website. The manual contains the illustrated instructions and therapeutic goals for 65 carefully selected magic tricks. The tricks are divided into four sections: beginner, intermediate, advanced, and mind-reading magic tricks. In addition, online videos are available to OTs that include performance and step-by-step instructions to 17 of the most common tricks in a therapeutic setting (see Appendix B).

In 2012, Magic Therapy™ gained the distinction of becoming the only approved provider of continuing education for occupational therapists on the application of magic tricks in a clinical setting. An arduous review process was conducted to examine systems, procedures, and educational practices to ensure the provision of quality professional development activities in accordance with the AOTA. In addition, the American Physical Therapy Association (APTA) featured the Magic Therapy™ program in their association journal, citing the connection between the motivating power of the arts and clinical success (Loria, 2019). Richard Shields, PT, PhD, FAPTA, the chair of the University of Iowa's Department of Physical Therapy and

Rehabilitation Sciences, stated that the magic therapy technique is powerful for patients because motivation in the interface between treatment and effectiveness (Loria, 2019). Charity Johansson, PT, PhD, a physical therapy professor at Elon University (NC), said, “The fact that magic tricks do not look like work is what makes them so effective when integrated into a therapeutic program” (Loria, 2019, p. 26).

The American Occupational Therapy Association (AOTA) and the American Physical Therapy Association (APTA) support the application of magic tricks as an authentic method of achieving therapeutic goals (Loria, 2019; Magic Therapy, 2020). In addition to the AOTA and APTA, Magic Therapy™ maintains well-established relationships with the Association of Child Life Professionals and several state occupational therapy associations. Collaborations with Escuela de Colombiana Rehabilitación in Bogata, Columbia, and Ural Federal University in Yekaterinburg, Russia, provided opportunities to develop university undergraduate courses on the application of magic and other art disciplines in academic and clinical settings. Magic Therapy™ also has a continuing research partnership with the Institute for Arts in Medicine and the School of Health Professions Department of Occupational Therapy at the University of Alabama at Birmingham.

Value of Humanities Education in Occupational Therapy

Advocates of medical humanities have, for decades, investigated the value of integrating arts and humanities content into medical and health professions education (Costa et al., 2020). Historically, the medical profession of occupational therapy promoted the *act of doing* arts and crafts as an essential component of practice and education (Bathje, 2012; Coppola et al., 2017). However, as the profession transitioned to a more medical-based model, these elements all but vanished from the curriculum standards. As a result, few examples of the application of the arts

in entry-level occupational therapy education currently exist (Bathje, 2012). Nevertheless, supporters of medical humanities have argued that humanities-engaged clinical education is vital in developing social and relationship skills, empathy and compassion, self-reflection, interpersonal skills, perspective-taking, critical reflection, and a tolerance for ambiguity (Costa et al., 2020).

Occupational therapy is a biopsychosocial profession and requires discernment of the values and beliefs of clients to develop effective partnerships in working toward successful rehabilitation. This necessitates an ability to think beyond merely *doing occupation* and consider varying perspectives to help make sense of the client's perception (Coppola et al., 2017). Arts-based interventions offer clients a nonverbal means of communicating information about values, beliefs, and lived experiences that define their occupational meaning. A humanities-based education extends to occupational therapy students the potential to develop empathy, compassion, ethics, and collaboration (Coppola et al., 2017; Costa et al., 2020; Smith et al., 2006). In addition, it aligns with other OT pedagogies that emphasize active learning, modeling and incorporating affective and cognitive learning (Coppola et al., 2017; Schaber, 2014).

Role of Occupational Therapy in Education

According to the United States Bureau of Labor Statistics (2021, July 29), schools are the third largest employer of occupational therapists comprising approximately 12% of total employment, following hospitals and office practices. In addition, schools are the primary setting for most pediatric occupational therapists (O'Donoghue et al., 2021). School-based occupational therapists (SBOTs) focus on academics, play and relaxation, social participation, self-care, and transition skills for children and adolescents with disabilities (American Occupational Therapy Association, 2021). The World Federation of Occupational Therapy (WFOT) recognizes school-

based practices as a significant aspect of delivering intensive services to maximize occupational performance and student participation among children with disabilities (WFOT, 2016). In addition, Kramer-Roy et al. (2019) reported that cooperation and partnerships established between therapists and teachers yield higher levels of student success and performance in learning, social engagement, play, and academic success.

One of the most significant challenges for a special education team is finding engaging and meaningful activities for their children. However, even more challenging is finding activities that allow for interdisciplinary collaborations between educators, psychologists, speech-language pathologists, and occupational therapists to help children with diverse learning needs achieve their desired outcomes (O'Rourke et al., 2018; Spencer, 2012). Arts-based interventions provide opportunities for these types of collaborations (Green et al., 2013; Hines et al., 2019; Schertz et al., 2016; Spencer, 2012; Spencer et al., 2019; Weinstein et al., 2015) and are aligned with the theories supporting occupational therapy and special education practices.

A Magic Trick-Themed Approach

The art of magic boasts a story as old as recorded history. Prehistoric cave paintings discovered in southern France and northern Spain, dating back more than 15,000 years, contain images of what scholars believe are shamans or magicians of that era (Prehistoric Cave Arts Found at Lascaux, 2001). The Westcar Papyrus, dated 3000 BC, incorporates illustrations of a magician performing in the Pharaoh's court (Christopher & Christopher, 2005). The oldest magic book in the world is *Tuhfat al-Ghraib (The Gift of Wonder)*, written in Persian between 978 and 1135 BC by Muhammad ibn Ayyub Alhaseb Tabari (Saberi, 2018). In this book, Tabari often explored the secrets of magic as an art and entertainment form. Magicians were frequent performers in the streets and marketplaces of ancient Rome and Greece (Christopher &

Christopher, 2005). By the late 1800s, magicians were an important part of society and significant players in London's West End theatre district (Houstoun, 2018). American magician and escape artist, Houdini, rose to international fame in the early 20th century along with contemporaries like Keller, Carter, George, Blackstone, Sr., Thurston, and Okito (Christopher & Christopher, 2005). Society continues to be fascinated with magic, as evidenced by JK Rowling's highly successful Harry Potter novels and the offering of magic as a popular form of entertainment in resorts, theatres, civic centers, and performing arts centers around the world.

Magic Tricks and Education

Brown and Vaughan (2009) examined the neuroscience of play and reported that engagement with the arts promotes new neural connections and strengthens existing neural connections across the brain. Panksepp (2008), a neuroscientist and psychobiologist, proposed that play and artful activities stimulate nerve growth in the two areas of the brain where emotions (amygdala) and executive functions (prefrontal cortex) are processed. Engaging in the playful activity of observing a magic trick often arouses one's curiosity.

A study conducted by neuroscience researchers at the University of California at Davis found that curiosity is highly influential in improving learning in the classroom and other settings (Gruber et al., 2014). A significant finding of the study indicated that when curiosity motivated learning, there was an increase in activity in the area of the brain responsible for forming new memories as well as increased interactions between the reward circuitry in the brain. When researchers compared recall rates for answers to trivia questions correlated with high and low curiosity, they found that participants recalled significantly more answers to high-curiosity questions (70.6% SE = ± 2.60 versus 54.1% SE = ± 3.04 ; $t(17) = 5.64$, $p < 0.001$). Curiosity-memory interactions were observed in different parts of the brain, including the nucleus

accumbens and hippocampus, predicting later memory for high-curiosity information. However, activity in the substantia nigra/ventral tegmental area complex was predictive of the successful memory formation in both high and low curiosity conditions. Researchers concluded that curiosity situates the brain in a state where one is more likely to learn and retain information (Gruber et al., 2014; Weisberg, 2016; Yuhas, 2014).

Researchers at the University of Michigan (2018) discovered similar results and found that students who investigate the connections between their creativity and curiosity are more likely to experience greater academic achievement (learning and retaining information). Kaufman (2017) encouraged learning experiences to include novelty, surprise, and complexity while providing students with greater autonomy and choice. Learning to perform a magic trick offers students the opportunity to capitalize on their curiosity, engage their intrinsic motivation, and participate in a novel experience that incorporates autonomy and choice.

General Education. Magic tricks have been implemented for hundreds of years in scientific and mathematical demonstrations (Wiseman & Watt, 2020). For example, the Hero of Alexandria, a first-century inventor and engineer, applied various conjuring techniques to demonstrate scientific phenomena to his audiences (Woodcroft, 1971). Similar demonstrations have been presented using mathematical principles under the pretense of a magic effect. Performers like Bill Blagg, Doktor Kaboom, and Bradley Fields are contemporary teaching artists who have achieved success in the field of arts education by providing educational study guides and incorporating magic tricks into touring productions like the “Science of Magic,” “Magic in Motion,” “the Wheel of Science,” and “MatheMagic!” (Shaw Entertainment Group, n.d.; Fields, n.d.).

English Language Learners. Performing magic tricks as an approach to learning English as a second language by non-native speakers has produced positive results. In two similar studies (Adipramono & Nindhita, 2016; Ikhsanudin et al., 2019), a magic trick performed by the teacher was the encouragement utilized to engage students in conversation. Ikhsanudin et al. (2019) reported that implementing magic tricks in the classroom was an effective method of increasing student engagement due to their elevated level of curiosity. In a qualitative study that included 24 students, observation sheets and a set of observation checklists were implemented to measure student engagement. Data analysis included descriptive statistics (percentages), coding collected from observation sheets, content analysis, and focus group discussions. Observational data indicated this approach stimulated interest and curiosity and greater than 75% of the students demonstrated an increased level of engagement.

Applying a slightly different approach, a pilot study was conducted in which the teacher implemented an organized, supplemental magic trick-themed curriculum with 21 students who were learning English as a second language over six weeks (Spencer & Balmer, 2020). The purpose was to determine if this approach would positively influence English conversation initiation and improve self-efficacy, self-esteem, and grit. Students were taught the lesson from the supplemental curriculum, practiced English language writing and dialogue, and completed the study with several performances for groups at the school. Data were collected applying pre- and post-surveys of the Self-Efficacy Scale Condensed Version, Rosenberg Self-Esteem Scale, and the Duckworth eight-item Grit Scale. In addition, a behavior rate tally sheet was utilized to record student conversation initiation. The Self-Efficacy Survey results indicated an overall mean increase from 74 to 86 (12 points). The results of the Rosenberg Self-Esteem Survey indicated there was an overall mean increase from 14 to 19 points. The eight-item Grit Scale

results revealed an increase from 2.9 to 3.4, with 5 being extremely “gritty” and a 1 being “not gritty at all.” Weekly observation tallies demonstrated an increase in the students’ frequency of initiating English conversation with a native English speaker, and engagement in authentic English conversation flourished with each new magic lesson (Spencer & Balmer, 2020). The findings of these studies show that a magic trick-themed program can increase motivation, student engagement, self-efficacy, and self-esteem among English Language Learners (ELL).

Special Education. In the 1980s and 1990s, a small number of education researchers examined the efficacy of learning magic tricks with students diagnosed with a learning disability. Their findings included: (a) magic tricks can be utilized as a multisensory approach to instruction by incorporating tactile, visual, and auditory processes (Frith & Walker, 1983); (b) magic tricks encourage creative problem-solving skills, observational techniques, and critical thinking (McCormack, 1985); and (c) magic tricks provide a strategy for building teamwork and self-esteem in children with Emotional Behavior Disorders (Broome, 1989). However, more than a decade passed before Ezell and Klein-Ezell (2003) investigated the influence of magic tricks to improve self-esteem and self-confidence in children and adolescents with disabilities. It would be another decade before additional studies determined the functional and academic merits of a magic trick-themed intervention for children with disabilities (Balmer, 2014; Levine, 2007; Spencer, 2012).

Most recently, a research team at UAB published the results of a pilot study to examine the influence of learning magic tricks on social skills and self-esteem of adolescents with autism spectrum disorder (Yuen et al., 2021b). The study was a pragmatic, nonrandomized, wait-list controlled study with a one-month follow-up. Seventeen children with an autism diagnosis participated in a virtual magic camp program facilitated in June 2021 and July 2021 delivered by graduate occupational therapy students (see Appendix C). Participants met three days a week

with their OT student magic coaches for 45 minutes each session for three weeks. Nine adolescents were enrolled in the June session and eight were enrolled in the July session (wait-list control group). The Rosenberg Self-Esteem Scale (RSES) and Social Skills Improvement System (SSIS) instruments were administered at the beginning of June, July, and August. The effect size was moderate for between-cohorts analysis on social skills resulting in Cohen's $d = .58$ and $.66$. When the cohorts were combined, researchers found statistically significant improvements in social skills and self-esteem among participants revealing an improvement from pre-camp to post-camp in the mean SSIS scores by 7.13 points, from 81.50 ± 28.61 to 88.63 ± 31.02 , $t(15) = 1.88$, $p = .04$, Cohen's $d = .47$, and in the mean RSES scores of 1.75 points, from 19.13 ± 5.93 to 20.88 ± 5.54 , $t(15) = 2.43$, $p = .014$, Cohen's $d = .61$ (Yuen et al., 2021b). The findings of the studies show that a magic trick-themed approach can significantly increase student engagement, encourage critical thinking, and improve social skills and self-esteem among students with disabilities.

Hocus Focus™ Supplemental Curriculum (HFSC). Based on the success of the Magic Therapy™ program, Spencer designed a supplemental educational curriculum in 2009 that incorporates carefully selected magic tricks (Hocus Focus, 2019). The 17-week program includes opportunities for students to learn through coaching, scaffolding, and modeling as the difficulty and complexity of each magic trick increases from lesson to lesson (O'Rourke et al., 2018; Spencer, 2012; Wiseman, 2020). The supplemental curriculum is available as a download in a digital format (Hocus Focus, 2019). It offers lesson plans that include behavioral objectives, materials list, procedures, adaptations, and accommodations; access to instructional videos for each of the tricks in the program; and access to the Hocus Focus Analytics (HFA) Scale for evaluation. Each lesson combines functional objectives with academic content aligned to common core standards of learning (see Appendix A). The supplemental curriculum has been

implemented in special education classrooms by educators, school-based occupational therapists, and speech-language pathologists. The HFSC was the magic trick-themed innovation that graduate OT students implemented in their fieldwork experience for this study.

Hocus Focus™ Analytics Scale. In a 2016 pilot study, researchers employing videoconferencing to connect two self-contained special education classrooms from different regions of the United States and the HFSC observed an increased level of engagement and improvement in student skills through the learning and performance of a magic trick (O'Rourke et al., 2018). Researchers were able to examine student outcomes more closely by reviewing recordings of each session as students advanced through the 12-week, magic trick-themed program. Teachers and researchers were able to observe improvements in several crucial areas. However, no validated instrument existed that would allow them to capture and measure the nuanced outcomes of these students. The HFA Scale (HFA) was developed to address this need.

Two members of the research team developed 58 items representing five domains of child growth and development common in special education (US Department of Education, 2018). These domains are identified as cognition, motor skills, communication, social skills, and creativity. They are defined as (O'Rourke et al., 2018, p. 8):

- The cognitive dimension evaluates students' ability to organize, sequence, remember, identify/name, follow directions, and concentrate on a task.
- The motor skills dimension encompasses students' dexterity, gross/fine motor coordination, strength, and their ability to engage in purposeful movement.

- The communication skills dimension evaluates students' ability to communicate effectively with others with whatever means are typically utilized for each learner (language, adaptive devices, sign language, etc.).
- The social skills dimension includes students' ability to interact with others, engage in conversation, and participate in social activities.
- The creativity dimension refers to students' ability to use ideas or concepts to problem solve, strategize, and develop novel approaches to be flexible in thinking and readjusting and amending procedures.

Thirteen expert raters were involved in a back-translation of the items to evaluate the scale content validity. The research team determined, *a priori*, to retain items if a minimum 70% of the raters affirmed an item. Frequencies were calculated on the completed back-translation data and the measure was reduced to 35 items (twelve in cognition, six in motor skills, five in communication, five in social skills, and seven in creativity). Four special education teachers from four different schools in the Midwest implemented the Hocus Focus Supplemental Curriculum for 12 weeks in self-contained classrooms with a total of 31 students (8 females and 23 males, mean age of 9.6 years). Each teacher utilized the HFA scale to rate their students' progress every other week for a total of six assessments. Data were collected, and item analysis was conducted to select items that were best related to the hypothesized construct. Each of the 35 items was correlated with a total score, and the items with the highest item-total correlations were selected as representing the identified construct. Each item's contribution to internal consistency and correlation with the total scale score was analyzed to reduce the number of items in the final scale. It was determined *a priori* that the final scale would contain 15 items (three for each domain) with the intent toward maximal reliability and ease of usage. Internal consistency

for the total scale, as measured by Cronbach's alpha, was .91. Each of the five domain subscales was: .80 for cognitive subscale; .79 for motor skills subscale; .63 for communication subscale; .73 for social skills subscale; and .87 for creativity subscale (O'Rourke et al., 2018). A high degree of internal consistency demonstrates that the reduced items assess as intended. Most researchers maintain that .70 is an acceptable rating; however, .80 or greater is preferred (Corina, 1993). With a .91 internal consistency rating, the HFA Scale is a reliable and valid instrument that accurately measures student outcomes using an arts-integrated approach (see Appendix D).

Magic Tricks and Occupational Therapy

The Model of Human Occupation (MOHO) has guided occupational therapy practice since the 1980s (Kielhofner & Burke, 1980). One of the sub-systems of this model is volition, the structure by which individuals integrate their values, personal causation, and interests. Humans desire to be competent at performing the tasks they value and tend to enjoy the tasks they do well (Taylor, 2017). Learning and performing magic tricks allows individuals to safely explore their skill level and provide a fun and motivating way to improve the skills necessary to accomplish the task (Magic Therapy, 2020; Spencer et al., 2019).

Theoretical Framework of OT. The model of human occupation provides a framework to understand the application of magic tricks in a therapeutic context. Foundational to this model are the interrelated components of volition, habituation, and performance capacity (Taylor, 2017). Volition refers to the motivation to learn a magic trick; habituation provides a process of developing the magic trick into a routine; and performance capacity describes the physical and mental competency required to execute the magic trick for others in an enjoyable presentation. These three dynamic components of a person are engaged in learning and performing a magic trick (Spencer et al., 2019; Taylor, 2017).

Additionally, several other theories can be identified that explain why learning to perform magic tricks is an effective intervention. The incentive theory of motivation (Killeen, 1982) supports the idea that learning to perform a magic trick may provide a special appeal for individuals with a disability because it gives them a chance to do something that their peers may not be able to replicate. Social learning theory (Bandura, 1977) corroborates the notion that people are often enthusiastic to practice magic tricks, even those that might be difficult, because performing for family and friends promotes socialization and personal growth. The three stages detailed in motor learning theory (Zwicker & Harris, 2009) are especially relevant to the process of learning to perform a magic trick. During the first stage (cognitive), the client may exhibit a general understanding of the movements required to perform the trick but might not be certain how to execute those movements. The second stage is an explicit learning stage (associative). As a result of regular practice, the execution of the movements becomes more refined and performed with greater consistency. The client's focus is on attaining the goal of mastering the magic trick, requiring less guidance and consciously adapting and adjusting movements independently (Muratori, et al., 2013). In the final stage (autonomous), the client has learned the motor skills and requires little cognitive effort to perform the trick.

In this study, graduate OT students delivered a magic trick-themed treatment to adolescents with disabilities that aligns with the components of MOHO (volition, habituation, and performance capacity) and integrates aspects of the other theories. The experiences of the OT students were examined to identify which factors related to the core attributes of the magic trick-themed intervention (the innovation and phenomenon) have the greatest impact. The researcher sought to understand and find meaning in how these attributes influence the OT students' decisions to adopt or reject this modality in their future practice.

Evaluating the Therapist. Competency and implementation fidelity are vital if an evidence-based intervention is to be successfully translated into practice (Breitenstein et al., 2010; Upton et al., 2014). The other creative or expressive arts therapies have developed methods to evaluate the practitioner's competency to deliver protocols effectively.

In 2018, researchers developed and validated an assessment scale for health professions personnel (Hocus Focus Magic Performance Evaluation Scale, HFMPES) to assess their competency in delivering magic tricks as a therapeutic intervention (Spencer & Yuen, 2018). Initially, a cross-sectional survey research design was utilized to establish content validity of five items applicable to evaluating a rehabilitation therapist's competency in delivering a magic trick-based protocol. Content validation was accomplished in a two-stage process: item generation and item evaluation (Spencer & Yuen, 2018). Content item validation included 16 professional magicians who independently rated the applicability of the five generated items in the proposed scale. An evaluation of the psychometric properties included two professional magicians who applied the scale in the assessment of 73 occupational therapy graduate students in their demonstration of three magic tricks from the HFSC protocol (Spencer et al., 2018). Preliminary findings demonstrated a .99 content validity index at ≥ 0.8 , indicating that each of the five items was representative of the underlying construct. Inter-rater reliability was ≥ 0.75 across the three magic tricks. Construct validity was substantiated by evidence from a known-group analysis (Mann-Whitney U-test) which revealed significant differences in the scores between participants who maintained different levels of experience in delivering the magic tricks.

The decision to adopt or reject a new intervention requires that the practitioner implement the protocol competently and with fidelity. This ensures that the experience with the magic trick-themed intervention is authentic and applicable. Graduate OT students were evaluated by

utilizing the HFPMES to establish their readiness to engage with their client (see Appendix E). This aligns with the first three stages of Rogers' diffusion theory – *knowledge*, *persuasion*, and *decision*.

Therapeutic Magic Camps. Children with disabilities often experience frustration and social isolation (Dawson et al., 2018), raising concerns regarding a lack of social acceptance, dissatisfaction with social participation, and higher rates of suicidal ideation (Chavira et al., 2010; Knapp et al., 2015). Therapeutic recreation camps have been instrumental in helping them manage these concerns as well as improve some other skills they find challenging (Green et al., 2013; Hines et al., 2019; Spencer et al., 2020; Walker & Pearman, 2009). Therapeutic recreation is defined as “a systematic process that utilizes recreation and other activity-based interventions to address the assessed needs of individuals with illnesses and/or disabling conditions, as a means to psychological and physical health, recovery, and well-being” (American Therapeutic Recreation Association, 2015, p. 22). Jay et al. (2021) reported that therapeutic camps have the potential to create social capital and increase the well-being of children with disabilities and Dawson et al. (2018) found that these experiences may strengthen their social networks.

A relatively new phenomenon in the realm of therapeutic camp experiences for youth with disabilities is therapeutic magic camps. Learning to perform magic tricks, especially in a social setting, has been shown to motivate children to engage in the motor components of executing the trick while providing positive social experiences that promote peer support (Hines et al., 2018; Hines et al., 2019; Spencer et al., 2020; Spencer et al., 2021; Yuen et al., 2021a; Yuen et al., 2021b). Learning and performing magic has also been influential in developing self-awareness, resilience, and independence (Yuen et al., 2021a).

Incorporating magic tricks into a therapeutic program involves two different aspects that

are beneficial to children with disabilities. The first is the process of learning the trick which involves cognition (remembering and sequencing the steps), motor skills (manipulating the props), and communication (O'Rourke et al., 2018). The second aspect is performance which involves social skills (initiates showing the trick to others, identifies the audience's perspective, captures the audience's attention) and creativity (adapts the trick according to ability, adjusts while performing, recognizes alternative possibilities) (O'Rourke et al., 2018). A therapeutic magic camp offers a holistic treatment approach that has been shown to influence the physical and psychosocial needs of the participant.

In this study, graduate OT students were trained in a carefully selected protocol of magic tricks and evaluated on their competency to deliver the protocol. This training and evaluation align with stages one, two, and three (*knowledge, persuasion, and decision*) of the innovation-decision process described by Rogers (2003). Stages four and five (*implementation and confirmation*) will be examined through individual and follow-up interviews and journal entries. The influence of the core attributes of the magic trick-themed intervention (the innovation) will be investigated through the experiences of the graduate OT students to determine what function relative advantage, compatibility, complexity, trialability, and observability have on their innovation-decision process.

Summary

In the most current literature, one arts-integrated approach that has received attention for its novelty and ability to address the intrinsic motivation of children and adolescents with disabilities is the learning and performing of simple magic tricks (Bonete et al., 2021; Green et al., 2013; Hines et al., 2018; Hines et al., 2019; Spencer et al., 2021; Spencer et al., 2020; Spencer, 2012; Wiseman & Watt, 2020). Research has shown that learning and performing

simple magic tricks can improve the cognition, motor skills, communication, social competence, and creativity of children and adolescents with disabilities (O'Rourke et al., 2018). However, a missing component of the literature is examining what factors influence the practitioners' decision-making process to adopt or reject a magic trick-themed intervention for this population.

This study investigated the magic trick-themed intervention from the therapists' perspective based on the five characteristics that influence the adoption or rejection of an innovation as described by Rogers' diffusion of innovation theory (2003). This was accomplished by utilizing a hermeneutical phenomenological approach with the intent of gaining a deeper, more detailed understanding of the therapists' interpretation of implementing a magic-based intervention at a therapeutic magic camp for adolescents with disabilities. Unstructured interviews, follow-up interviews, and journal entries were employed to gain insights from graduate occupational therapy students trained in this approach and who participated in a magic trick-themed camp during their fieldwork.

Diffusion of innovations theory provided the theoretical framework for this study. This theory promotes the idea that innovations are accepted and adopted by an identified population through a defined innovation-decision process consisting of five stages: knowledge, persuasion, decision, implementation, and confirmation (Rogers, 2003). This theory also posits that there are five characteristics of an innovation (the magic trick-themed program) that influence whether it will be adopted or rejected (Rogers, 2003; Scott et al., 2008). These characteristics are (1) *relative advantage*, the degree to which an innovation has an advantage over the previous method; (2) *compatibility*, the degree to which an innovation is relevant and appropriate to the values and experiences of the potential adopter; (3) *complexity*, the degree to which an innovation is categorized on a complexity-simplicity continuum and is regarded as easy or

difficult to understand and implement; (4) *trialability*, the degree to which an innovation may be tried before being fully put into practice; and (5) *observability*, the degree to which the adopter can observe the positive outcomes of a new innovation (Rogers, 2003; Scott et al., 2008). This theory was applied to examine the experience of the graduate occupational therapy students in delivering the magic trick-themed intervention to identify potential factors that may be influential in the adoption process of this innovation.

CHAPTER THREE: METHODS

Overview

The purpose of this hermeneutic phenomenological study was to examine the lived experiences of graduate occupational therapy (OT) students in the delivery of a magic trick-themed intervention in their fieldwork to gain a deeper understanding of the factors that may influence their decision to adopt or reject this approach in their future practice. Chapter three provides a thorough description of the research design, the participant selection process, details about the research site, a description of the motivation to conduct this study, and the interpretive framework and philosophical assumptions that guided it. In addition, it addresses the research procedures, methods of data collection, analysis and synthesis, and the process by which credibility and trustworthiness are insured. Finally, it concludes with a summary of the alignment of design choice, data collection and analysis strategies, and an overview of data synthesis and ethical considerations.

Research Design

Previous research examining the application of a magic trick-themed intervention with children and adolescents with disabilities utilized a quantitative approach. These studies focused on this population's cognitive, physical, and social-emotional benefits of learning and performing magic tricks (Hines et al., 2019; O'Rourke et al., 2018; Spencer et al., 2020). The limited qualitative studies investigating this approach were centered on the experiences of the child participant or the parent's perceptions of their child's experience (Hines et al., 2018; Spencer et al., 2021; Yuen et al., 2021). No studies were found that attempted to analyze the practitioners' experiences with the magic trick-themed intervention. Because this study aims to

examine the participants' lived experiences to better understand the factors that may influence their decision to adopt or reject this methodology, a qualitative approach was well suited.

Phenomenology was selected because its primary purpose is to search for rich meaning in the first-person experiences, impressions, beliefs, and feelings of an individual's or group's involvement with a phenomenon to produce in-depth descriptions of that phenomenon (Creswell & Poth, 2018; Moerer-Urdahl & Creswell, 2004; Moustakas, 1994). Previous literature examined the experiences of the therapist-client relationship or the therapist-therapist relationship (Crabtree & Lyons, 1997; Finley, 1999; Peloquin, 1990, 1993). However, no specific research was found that investigated a therapist's experience with implementing a particular, arts-based treatment modality to reveal personal meaning and understanding of that experience and the factors that may lead to the adoption of the practice. This study will add to the gap in the body of knowledge in this area.

Phenomenology emerged as a philosophy in Germany prior to World War I. Kant and Hegel used the term. Still, it was Brentano who utilized the phrase 'descriptive psychology or descriptive phenomenology' that provided the intellectual motivation for Husserl's development of transcendental phenomenology (Husserl, 1931; Moran, 2000). Husserl embraced Brentano's explanation of intentionality, the fundamental concept that all perceptions have meaning (Moustakas, 1994; Owen, 1996). Husserl (1931) deemed experience as the foundational source of knowledge and phenomenology as the unbiased study of things as they appear (Racher & Robinson, 2003). His phenomenological methodology considers Epoché, Transcendental-Phenomenological Reduction, and Imaginative Variation in the induction of knowledge (Moustakas, 1994).

Epoché is the first step in Husserl's phenomenology. The researcher must set aside or bracket any previous presumptions and understandings of the phenomenon and approach the experience with a clear, unbiased perspective. Next, Transcendental-Phenomenological Reduction requires the researcher to consider each participant's experience in its singularity, providing a detailed description of its "essential constituents, variations of perceptions, thoughts, feelings, sounds, colors, and shapes" (Moustakas, 1994, p. 34) from which one derives the individual textural description of the meanings and essences of the phenomenon, an "essential understanding of human consciousness and experience" (Dowling, 2007). Finally, the structural essences of the experience are understood through the process of Imaginative Variation (Moustakas, 1994), in which the researcher presents a "picture of the conditions that precipitate an experience and connect with it" (p. 35). A final narrative is written by integrating the textural and structural essences of the experiences to create a synthesis of meanings of the phenomenon being investigated.

Complete bracketing of my personal experiences, Epoché, with the phenomenon under investigation is an impossible consideration. My intimate and professional knowledge of the art of magic, the fact that I am a pioneer in developing this approach, and the extensive experiences I have had in implementing it cannot be fully set aside. As such, a transcendental approach was unfeasible, and hermeneutic phenomenology was selected as the appropriate design for this study.

Introduced by Heidegger in his book, *Being in Time* (1927), hermeneutic phenomenology is also concerned with human experience as it is lived but differs from Husserl's approach in how these lived experiences are explored. Heidegger promotes the application of hermeneutics as a research method established on the ontological perspective that lived experience is an

interpretive process (Dowling, 2004; Racher & Robinson, 2003). The basic tenet of this approach directly involves one's fundamental experience of a phenomenon which provides the basis for a thoughtful structural analysis that depicts the essences of those experiences. (Hein & Austin, 2001; Guillen, 2019; Sloan & Bowe, 2014; von Eckartsberg, 1986; van Manen, 2014).

In Heidegger's approach, phenomenological reduction is revisioned as the hermeneutic circle, a concept that recognizes understanding as a reciprocal activity (van Manen, 1990). In data analysis, the hermeneutic circle acknowledges that the interpretation and understanding of knowledge are in a state of constant revision as the data are analyzed, organized into parts (codes and themes), and synthesized (Horrigan-Kelly et al., 2016; Lengyel, 2018). Gadamer (1989), who followed the work of Heidegger, in his book, *Truth and Method*, argued that understanding is extracted from personal involvement by the researcher in a reciprocal process of interpretation. He asserts that inquiry becomes dialogue, and interpretation pervades every activity, with the researcher considering cultural, social, and gender implications (Koch, 1999). In Gadamerian hermeneutics, the hermeneutic circle becomes a dialogical approach incorporating feedback and further discussion with study participants (Dowling, 2007) that combines the perspective and experience of the interpreter and the phenomenon being studied (Fleming et al., 2003). Hermeneutic phenomenology is conducted through empirical and reflective pursuits utilizing personal experiences, responsive interviews, and observation (Horrigan-Kelly et al., 2016; Guillen, 2019; Lengyel, 2018; Moustakas, 1994; van Manen, 2014). It offers both a subjective and objective approach to the construction of knowledge through the implementation of the philosophy of the hermeneutic circle (Horrigan-Kelly et al., 2016; Lengyel, 2018) and rigorous data analysis (Moerer-Urdahl & Creswell, 2004; Moustakas, 1994).

Applying a hermeneutic phenomenological approach in this study illuminated personal meanings and resonate descriptions of the graduate OT students' lived experiences related to their delivery of the magic trick-themed intervention. This collection was achieved through individual interviews (semi-structured and responsive) and the analysis of journal entries (Brinkmann & Kvale, 2015; Moustakas, 1994; Rubin & Rubin, 2012) of the graduate OT participants. The consequence of this study was a holistic description of the essence of the graduate OT students' experiences with the magic trick-themed intervention extracted from the textual and structural descriptions constructed in the data analysis.

In Transcendental-Phenomenological Reduction, the qualities of each participant's experience with the delivery of the magic trick-themed intervention became the focus. My task was to describe what they saw and experienced in textural language, externally and internally. This task required that I "look and describe; look again and describe; look again and describe; always with reference to the textural qualities" (Moustakas, 1994, p. 90) shared by the participants. This process allowed me to find common concepts and develop themes that accurately codify the lived experience of the graduate OT students with the magic trick-themed intervention.

The task of Imaginative Variation required that I address or encounter the participants' experiences with the intervention from divergent perspectives. This process allowed me to envision and discover a structural description of their experiences through an understanding of the underlying and causative factors determined by their experience, "the 'how' that speaks to conditions that illuminate the 'what' of experience" (Moustakas, 1994, p. 98).

Research Questions

The following research questions guided this hermeneutic phenomenological study.

Figure 5 on page 75 was developed based on Rogers's (2003) diffusion of innovations theory to illustrate how each question is supported by one of the core attributes of a successful innovation.

Central Research Question

What are the lived experiences of graduate OT students in the delivery of a magic trick-themed intervention?

Sub-Question One

How are *relative advantage* and *complexity* of this magic trick-theme intervention interpreted by the graduate OT student?

Sub-Question Two

How did the graduate OT students interpret the importance of *trying* the magic trick-themed intervention?

Sub-Question Three

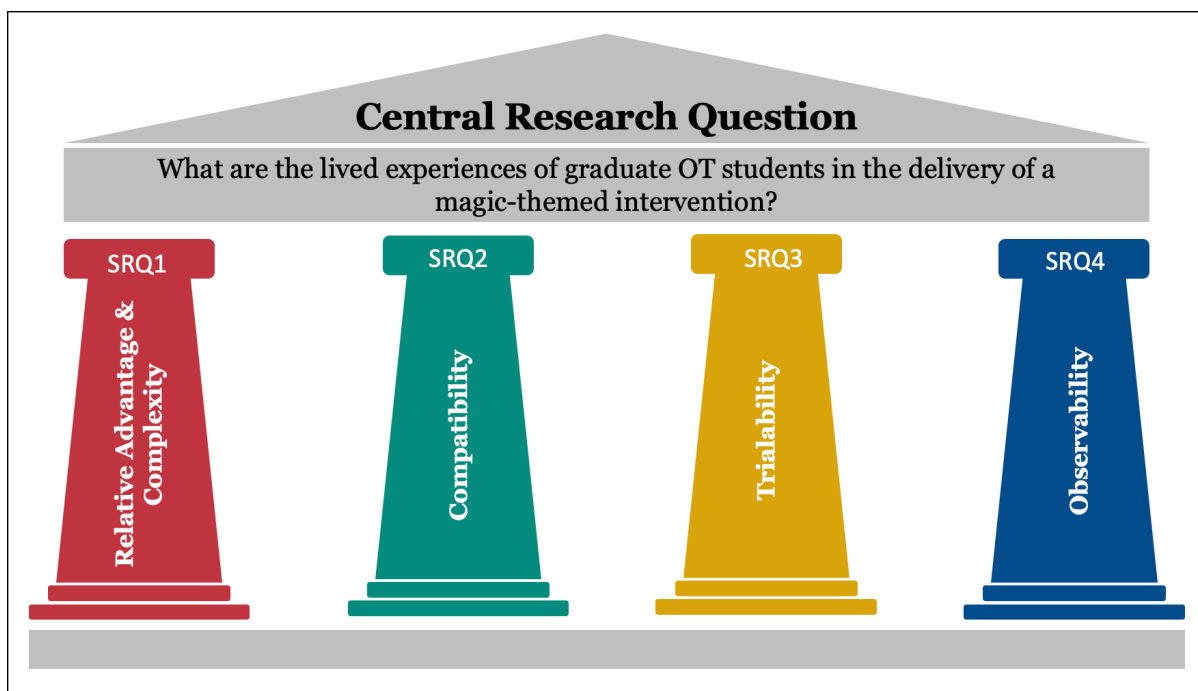
How is this magic trick-themed intervention *compatible* with the personal and professional values of graduate OT students?

Sub-Question Four

What are the perceived *outcomes* of this magic trick-themed intervention by the graduate OT student that may influence their decision to adopt or reject this approach?

Figure 5

Research Questions Supported by Diffusion of Innovations Theory



Setting and Participants

This section identifies the research setting or site, and the reasons supporting its selection are objectively stated. The participant selection process is also reported. Finally, a description of the study participants is offered.

Setting

The study site, the School of Health Professions (SHP), is a research-intensive institution of higher education (R-1) located in an urban area in a southern state in the United States. The institution is referred to by its pseudonym, the School of Health Professions (SHP). The SHP offers a Master's of Science (MSOT) and Clinical Doctorate (OTD) in occupational therapy. The program is the third-highest ranked program in the Southeast and among the top 20 in the nation. From 2017 to 2020, the MSOT program produced a 99% graduation rate, and its graduates projected a 99% pass rate on the National Board of Certification in Occupational Therapy examination. The program enrolls a maximum of 120 new students each year, and the faculty proffer an innovative curriculum and unique opportunities for students.

The site was specifically chosen because the chair of the occupational therapy program affirms the theories supporting the application of magic tricks in a clinical setting and has embraced the technique as a valid therapeutic intervention. In 2015, the program chair invited the designer of this technique to present it to graduate OT students in collaboration with the Institute for Arts in Medicine. Since 2018, the Occupational Therapy Department and the Institute for Arts in Medicine, in partnership with the Center 4 Creative Arts (C4CA), have offered a therapeutic magic camp for children and adolescents with a variety of disabilities, including unilateral and bilateral cerebral palsy, Autism Spectrum Disorder, Down syndrome, traumatic brain injury, and intellectual disabilities. As a part of their coursework, graduate OT students are introduced to the magic trick-themed technique and the respective supporting theories. This introduction is followed by an interactive workshop that provides the initial training in the delivery of the magic trick-themed protocol.

Participants

The participants for this study were selected using purposive sampling from a sample pool of approximately 70 graduate OT students who were enrolled in Fieldwork Experience 1 and Non-thesis Research courses. These courses require all graduate OT students to participate in the program's annual therapeutic magic camp as a magic coach or instructor for a child or adolescent with a disability. This study included 10 OT students enrolled in the graduate MSOT or OTD programs at SHP.

In qualitative research, purposive sampling is most often employed by the researcher because it aims to discover a richness of data by focusing on quality rather than the quantity of participants (Hennink et al., 2017; Patton, 1990). The concept of saturation was introduced by Glaser and Strauss (1967) and referred to the point in data collection "when no additional issues

or insights emerge from data and all relevant conceptual categories have been identified, explored, and exhausted” (Hennink et al., 2017, p. 592). Generally, it is the point at which new data do not generate new information that addresses the research question (Guest et al., 2020). Morse (1995, 2000, 2015) identified saturation as the most common guiding principle for estimating a purposive sample. However, Kerr et al. (2010) stated that saturation could only be functional or operationalized during data collection. This situation creates a dilemma because in qualitative research, it is often required to identify the sample size *a priori* which, according to Hammersley (2015), is “an institutionally generated problem” (p. 687). Few empirical studies have been conducted on how saturation is achieved in purposive sampling (Hammersley, 2015; Hennink, 2017) despite the fact that data saturation is the conceptual measurement for estimating and assessing qualitative sample sizes (Guest et al., 2020) and Morse (1995) posited that saturation is an essential element of rigor made evident by nothing more than researcher declaration.

Guest et al. (2020) proposed using a $\leq 5\%$ new information threshold as a representation of the proportion of new information that is acceptable as evidence of saturation at a given time in data collection. Findings indicated that six to seven interviews would capture the preponderance of themes in a homogenous sample (Francis et al., 2010; Guest et al., 2006; Morgan et al., 2002). A sample size of 10 exceeded this threshold and provided the richness of data needed for this study. The empirical research demonstrates that the “most prevalent, high-level, themes are identified very early on in the data collection, within about six interviews” (Guest et al., 2020, p. 10), and new information decreases with subsequent interviews.

The selected participants were engaged in fieldwork and participated in the annual therapeutic magic camp program. Given the nature of the field of occupational therapy and the

enrollment history of the university, participants were 80% female and 20% male, 22-28 years of age. In addition, persons of color comprised 20% of the participant sample.

Researcher Positionality

The motivation for this study is grounded in successful personal experiences with children and adolescents with disabilities who have demonstrated positive gains in five recognized learning domains through their participation in a magic trick-themed intervention. In the current environment of accountability in education and healthcare, it has become increasingly important to connect evidence-based interventions to improved student outcomes. This research study is designed to provide consultants, university educators, and continuing education workshop presenters with insights into the factors that may influence practitioners in their decision to adopt a new treatment technique. The approach originates from an ontological and epistemological philosophical perspective grounded in constructivist thought. Per constructivism, research is viewed as being socially constructed through social interaction, focused on the participants' perspectives, attitudes, and lived experiences, and considered all relevant perspectives to identify clusters of meaning through an inductive process (Creswell & Poth, 2018).

As it relates to the research purpose and questions, each graduate occupational therapist experiences their teaching and delivery of the magic trick-themed protocol via a different perspective, thereby yielding idiosyncratic, subjective evidence. The diversity of those lived experiences constructs a reality worthy of examination. Reporting these different perspectives as themes synthesized from the participant's responses is the responsibility of the researcher (Creswell & Poth, 2018). The following paragraphs include descriptions of the interpretive

framework and philosophical assumptions that guided the researcher to better observe, examine, and offer an interpretation of the participants' experiences with this phenomenon.

Interpretive Framework

There is a duality in the worldview that shaped this study found in Biblical and interpretive or social constructivist thinking. A Biblical worldview considers the uniqueness of human experiences as an integral aspect of understanding the truths of faith. Jesus often taught using an inductive approach, and in studying His teachings, one may gain knowledge about the self, the world, others, and God through Him. Constructivism is a series of logical steps that implement multiple measures and observations to find meaning (Creswell & Poth, 2018; Trochim, 2020). Participants construct their view of the problem based on their perceptions (Trochim, 2020).

This study was conducted via the perspective of social constructivism, a theory formulated to explain the process by which people acquire knowledge (Rasmussen, 1998). Philosophers, psychologists, social scientists, and educational theorists regard knowledge and meaning as being constructed rather than given (Neiman, 2001). The basic assumption of social constructivism is that people construct methods of understanding their environment and themselves based on their observation of people, events, and activities, among others (Rasmussen, 1998). In an educational context, constructivism is expressed as understanding derived from an individual's mental pursuits in which knowledge is actively constructed and strongly influenced by social interactions (Bereiter, 1994; Bruning et al., 1995; Walker & Shore, 2015). Per social constructivism, this study focused on the participants' perspectives and lived experiences with the phenomenon through social interaction and considered all relevant perspectives to identify clusters of meaning through an inductive process (Creswell & Poth,

2018).

Philosophical Assumptions

Creswell and Poth (2018) described philosophical assumptions as a set of beliefs that guide one's actions, the foundation on which one builds reality – the nature of the world, one's knowledge of it, and the role of values in the process of knowledge production (Pryce et al., 2014). It would be unwise to underestimate the importance of these assumptions and how they influence this phenomenological study's interpretive or constructivist framework.

Ontological Assumption

In qualitative research, ontology entails the examination of reality or truth on a continuum. Positioned at one pole of the spectrum is the belief that reality is objective and universal truth exists; at the other is the notion that reality is subjective and contextual (Pryce et al., 2014). Ontology advances that the nature of reality is subjective based on the lived experiences of the individual. There is no single reality for any phenomenon, rather, the existence of multiple realities (Speziale & Carpenter, 2003). Phenomenology focuses on the ontological assumption of what it means to be. This study assumed the ontological view that reality is subjective and contextual. It, therefore, investigated the participant's understanding of a socially-constructed reality, how it can be adequately understood, and how best to classify its essence. Regarding the research purpose and questions, each participant experienced their engagement in utilizing the intervention via a different perspective. The researcher was responsible for accurately identifying and reporting those perspectives as ideas, concepts, and themes developed within the findings (Creswell & Poth, 2018).

Epistemological Assumption

At its most fundamental level, Husserl's phenomenology is an epistemological

undertaking (Berghofer, 2019). Martin Heidegger, a former student of Husserl, conceived phenomenology as an interpretation of what it means to exist in the world (Heidegger, 1926; Heidegger, 1971; Horrigan-Kelly, 2016). His philosophical approach, hermeneutic phenomenology, focuses on epistemology, or how one knows. This study is grounded in the epistemological view that the participants' lived experiences will help one better understand how and what they know about this phenomenon. Knowledge was gained through the empathic understanding of the involvement and process of the participants with the magic trick-themed intervention. The researcher collected details of each participant's personal experience with the phenomenon through individual and follow-up interviews and journal entries (Creswell & Poth, 2018).

Axiological Assumption

The researcher was guided by values of fairness, respect, and a sincere eagerness to discover truth, meaning, and knowledge. Advocacy for greater awareness and acceptance of individuals with disabilities is imperative. The Christian researcher recognizes that Jesus commanded humans to love one another as He has loved (John 13:34). This command does not provide any exclusions based on mental health, intelligence, or ability. The love shown by God is active and exemplifies a deeply held commitment to help others achieve that for which they were created. The follower of Christ bears the moral and ethical responsibility to enable individuals with disabilities to reach their full potential. Participants in the present study may not hold these same religious values; however, they have chosen a field that requires empathy, dedication, and commitment to others to help them achieve optimum outcomes.

Researcher's Role

I am the founder of the non-profit organization Hocus Focus, Inc., which oversees the training and implementation of a magic trick-themed approach in special education and rehabilitation environments internationally. The organization's mission is to improve the lives of vulnerable populations by empowering educators and rehabilitation specialists with evidence-based best practices and supplemental materials to allow individuals with disabilities to explore, improve, and develop functional, social, emotional, and academic skills through the application of arts-integrated interventions. I pursued this research study to contribute to the body of knowledge regarding the factors that may influence the adoption or rejection of arts-based approaches in practice, specifically magic tricks. I am also one of the originators of this magic trick-themed technique and the individual who has accomplished the most extensive work in the systematization, development, and expansion of this intervention. Since 2015, I have been invited annually to introduce graduate OT students at SHP to the concepts and theories supporting the magic trick-themed intervention and provide an interactive workshop instructing them in several magic tricks included in the protocol.

I assumed the role of the researcher and primary instrument for data collection in this study. Lincoln and Guba (1985) introduced the term "human instrument" to emphasize the researcher's responsibility in scientific inquiry. It proposes that only people "construct and bring meaning into the world through their qualities of sensitivity, responsiveness, and flexibility, making them the most appropriate instrument for inquiries aiming to arrive at understanding and meaning" (Peredaryenko & Krauss, 2013, p. 1). My responsibility as the researcher was to focus on the wholeness of the experience for the participants and search for the essence of those experiences (Moerer-Urdahl & Creswell, 2004; Moustakas, 1994). Lave and Kvale (1995) suggested that one's personal experiences are deemed the best instruments for obtaining

information and understanding the participant's social and cultural milieu. Rennie (1994) suggested that availing oneself of one's own inner experiences can facilitate relationship-building with participants to better understand them and their experiences.

Procedures

The following paragraphs will provide a detailed explanation of the required permissions from the study site, the selection process for participants, data collection, and, finally, how the data were analyzed to enhance the credibility of the findings. Permission was granted by Liberty University IRB. For more information, contact Liberty University's IRB Department (approval number 223356).

Permissions

Graduate OT students enrolled in Fieldwork Experience 1 and Non-thesis Research courses at SHP are required to participate in an annual therapeutic magic camp co-sponsored by the Institute for Arts in Medicine (AIM) and Center 4 Creative Arts (C4CA). Therefore, a request was made to the chair of the occupational therapy program at SHP to present the study to these students during the semester before implementing the camp. Once permission was granted, the letter of support was included in the IRB proposal (see Appendix G).

Recruitment Plan

The participants for this study were selected using purposive sampling from a pool of approximately 70 graduate OT students who were enrolled in Fieldwork Experience 1 and Non-thesis Research courses. The sample size included ten graduate students selected using a criterion sampling strategy. Purposeful sampling is broadly utilized in phenomenological research to identify and determine participants. Though several different purposive strategies are available to researchers, criterion sampling is the most customary strategy in implementation

research (Palinkas et al., 2015).

Recruitment for the study was conducted virtually during the semester in which the courses at SHP were being offered. The recruitment presentation followed the introductory presentation of the magic trick-themed intervention and the interactive workshop (see Appendix H). The presentation and workshop were approximately 2.5 hours in length. After the workshop, the researcher introduced the study by explaining the purpose and expectations of the participants to engage in individual interviews and maintain a journal throughout their camp experience. Consent forms were distributed to those who expressed interest (see Appendix I). The consent form described the purpose of the study, the expectations of those who choose to participate, a declaration that no compensation or incentives will be offered, how personal information will be protected, and procedures for withdrawing from the study. Students were allowed to review the consent form and ask questions about their potential participation. For those who wished to participate, a signed consent form was submitted to the course instructor or the researcher within seven days of the recruitment presentation (see Appendix H).

Data Collection Plan

The interview is a vital component of qualitative research (Brinkmann & Kvale, 2015; Rubin & Rubin, 2012). It is a professional conversation in which knowledge is developed through the interaction of the interviewer and the interviewee (Brinkmann & Kvale, 2015). Qualitative interviewing was an essential aspect of this study as it allowed the researcher to examine processes that are invisible, personal, and complex (Rubin & Rubin, 2012). As a hermeneutic phenomenological study, data collected through the interview process were critical in understanding the participants' lived experiences and how and what they came to know about this phenomenon.

A semi-structured, responsive interview model was employed in this study. The method of semi-structured interviews attempts to understand the meaning of an individual's experiences and vicariously experience a phenomenon from the participant's perspective (Brinkmann & Kvale, 2015; Rubin & Rubin, 2012). Brinkmann and Kvale (2015) defined a semi-structured interview as "an interview to obtain descriptions of the life world of the interviewee to interpret the meaning of the described phenomena" (p. 6). Responsive interviewing is an approach to qualitative interviewing that accentuates flexibility of design and allows the researcher to change or modify questions in response to what is being learned from the participant (Rubin & Rubin, 2012). In this model, the role of the researcher is to collect narratives, descriptions, and interpretations from all the participants and analyze and assemble them in a way that describes a narrative that they recognize as their reality (Rubin & Rubin, 2012). This approach is considerate, cooperative, respectful, and ethical. Responsive interviewing assumed that participants interpreted their experience in delivering the magic trick-themed intervention and constructed their understanding of that experience. The researcher's responsibility was to listen, balance, and analyze their constructions to understand better that lived experience (Brinkmann & Kvale, 2015; Rubin & Rubin, 2012).

The responsive interview process allowed the researcher to attain depth and detail through the application of three types of linked questions: *main questions* that addressed the central research questions; *probes* that were applied to encourage the participants to continue the conversation and provide details and examples of their experiences; and *follow-up questions* that enabled them to elaborate on key concepts, themes, ideas, and events to provide more depth and meaning (Rubin & Rubin, 2012). In this study, the reader will recognize seven stages of the interview process as outlined by Brinkmann and Kvale (2015): "(a) thematizing an interview

project, (b) designing, (c) interviewing, (d) transcribing, (e) analyzing, (f) verifying, and (g) reporting” (p. 23).

Once all interviews with participants were completed, they were transcribed using the Otter.ai software platform. Each transcription was reviewed with the original recording for accuracy, corrected where required, and forwarded to the appropriate participant for approval (member checking). Transcriptions were anonymized and individually uploaded to the Delve analysis tool for coding.

The Delve analysis tool allows the researcher to upload fully transcribed interviews and journals; create codes utilizing multiple methods of coding (descriptive, in vivo, and process); collate excerpts and group codes into themes; evaluate and revise themes and create sub-themes; and write a narrative summary of the findings. In addition, Delve allows the researcher to add a description or definition of the code and automatically generates a codebook (Hammersley, 2015) as codes are identified and entered into the analysis tool.

A thematic analysis was employed to identify and describe core themes across all data. Interviews were analyzed and coded utilizing a hybrid approach, incorporating both deductive and inductive coding. Deductive codes were generated based on the research questions and guided by the core attributes of diffusion of innovations theory. Inductive codes were derived from the analysis of the data. Codes were grouped into themes, evaluated, revised, and combined as necessary. Ultimately, they were written into a narrative summarizing the findings. Code saturation was addressed by systematically reviewing the interview transcripts, recording new codes and characteristics as they were identified (code name, code definition, inductive or deductive, and any notations about the new code), and identifying any previous codes that were present in the interviews (Guest et al., 2020; Hammersley, 2015).

Upon completing the thematic analysis of the initial interviews, six participants were randomly selected for a second semi-structured interview to delve deeper into their interpretations and perspectives of using the magic trick-themed intervention. The audio of these interviews was recorded using the Zoom videoconferencing platform and transcribed using the Otter.ai online software. Transcriptions were provided to each participant to verify the transcript's accuracy and confirm the meaning and intent of their statements. Verified transcripts were anonymized and uploaded into the Delve analysis tool for thematic analysis applying the same coding approach as the initial interviews.

A method of assessing and reporting saturation in an inductive thematic analysis proposed by Guest et al. (2020) was employed in this study. This method consists of three distinct components – base size, run length, and new information threshold. *Base size* refers to the minimum number of data collection events (i.e., interviews) that should be analyzed to calculate the amount of information already identified (Guest et al., 2020). The data collection event is the unit for analysis, and the unique codes representing identified themes are the items of analysis (Guest et al., 2020). *Run length* is the number of interviews that are analyzed to find and calculate new information. And *new information threshold* represents the proportion of new information acceptable as evidence of saturation at a given time in data collection, such as $\leq 5\%$ new information or 0% new information (Guest et al., 2020). Guest and his colleagues (2020) posit that these thresholds can act as criteria similar to a *p*-value of < 0.05 in statistical analysis and provide a transparent method of presenting data saturation assessments. Guest et al. (2020) illustrate the seven-step process using a hypothetical dataset in their research article, *A Simple Method to Assess and Report Thematic Saturation in Qualitative Research* (see Appendix J).

Previous studies have shown that most new information in a qualitative dataset is

revealed early in the analysis process, followed by a significant decline (Guest et al., 2006; Guest et al., 2017; Morgan et al., 2002). Quantitative researchers rely on established levels of confidence intervals to support statistical analysis, but no such metrics exist in qualitative research. The proposed thresholds do not guarantee saturation; however, they do provide a straightforward means of presenting data saturation that can be interpreted by other qualitative researchers (Guest et al., 2020). In this study, a minimum of 10 participant interviews were analyzed with the knowledge that no new themes may be identified after the initial five or six interviews.

Individual Interviews (Data Collection Approach #1)

Interview questions were developed that address the study's central research question. Sub-questions are supported by the core attributes of diffusion of innovations theory (Rogers, 2003). These questions were generated with the input of the chair of the occupational therapy program and one of the researchers at SHP who has conducted numerous studies on arts-based interventions in healthcare. Questions were formulated to provide sufficient detail to identify common concepts, ideas, and themes that describe the participants' experiences with the magic trick-themed intervention.

Individual semi-structured interviews were conducted following the delivery of the magic trick-themed intervention with all graduate OT participants through the Zoom videoconference application. Interviews were recorded auditorily to preserve the participants' actual words and were conducted within four weeks of the graduate OT student's participation in the therapeutic magic camp.

Individual Interview Questions

Each graduate OT student participated in an interview consisting of semi-structured questions designed to elicit details about the participants' experiences and impressions of the magic trick-themed intervention (see Appendix K). These questions were developed to explore the participant's feelings, beliefs, and opinions related to each of the five core attributes of a successful innovation that may influence its adoption or rejection by the participant. These attributes are described as the advantages of the approach over more traditional methods (relative advantage), personal relevance and appropriateness (compatibility), ease or difficulty of implementation (complexity), practical experience or experiential learning (trialability), and monitoring of positive outcomes (observability) (Cook et al., 2013; Rogers, 2003; Scott et al., 2008).

Relative Advantage

1. Based on your experience with magic, what is the probability that you would include magic as a part of your therapeutic programs in your future practice? CRQ, SQ3, and SQ4.
2. Based on your experience with magic, describe any advantages you think this approach might have over other interventions. SQ1

Questions one and two were designed to facilitate a deeper understanding of the participant's impressions of the phenomenon, the degree to which they believe or reason that this approach has advantages over other treatment methods, and the significance these impressions and perspectives have on their consideration for future implementation of this method (Cook et al., 2013; Rogers, 2003; Scott et al., 2008).

Compatibility

3. Now that you have been studying OT for a while, you have developed a sense of your values as a future occupational therapist. How does this method align (or not) with those values? CRQ and SQ3
4. What are your thoughts about using this approach as a school-based program? CRQ, SQ1, SQ3, and SQ4.

Questions three and four were designed to address the participants' perspectives on the degree to which they believe the magic trick-themed intervention is relevant and appropriate to their personal and professional values as an occupational therapist. In Rogers' explanation of the successful spreading or adoption of an innovation, the degree to which the participant is able to align their values with the innovation is an essential component (Cook et al., 2013; Rogers, 2003; Scott et al., 2008).

Complexity

5. How did you interpret the ease or difficulty of using this magic trick-themed technique? CRQ and SQ1
6. What challenges did you have? And how did you manage them? CRQ and SQ1

Questions five and six were developed to probe the participants' judgments on the complexity of the magic trick-themed intervention. According to Rogers (2003), the degree to which an innovation is regarded as easy or difficult to understand and implement is an influential factor in one's decision to adopt or reject the innovation. Complexity also speaks to a participant's challenges with the intervention and how those were managed or resolved. This aspect is recognized as one of the core attributes of a successful innovation (Cook et al., 2013; Rogers, 2003; Scott et al., 2008).

Trialability

7. How important was it for you to try this approach first to decide if you will use it in your practice? CRQ and SQ2
8. How important was it for you to have a partner working with you on your first experience utilizing this approach? CRQ and SQ1
9. Did having a partner help build your confidence to use this program on your own? CRQ and SQ4

Questions seven through nine aim to solicit responses that allow the researcher to understand the impact and influence of delivering the intervention on the participants. Rogers defines trialability as the degree to which an innovation can be tested and evaluated before deciding to continue its implementation in the future (Rogers, 2003). Trialability is considered a critical component of a successful innovation (Cook et al., 2013; Rogers, 2003; Scott et al., 2008) and is identified as one of the pillars that support the research question and sub-questions of this study.

Observability

10. Describe any positive or negative outcomes you experienced with the children you worked with. SQ4
11. What did you learn about yourself through this experience that will make you a better OT in the future? CRQ, SQ1, SQ3, and SQ4

Questions ten and eleven encouraged participants to articulate their impressions and perceptions regarding any positive outcomes they observed about their client and themselves as a result of their experience with the phenomenon. Rogers contends that the capacity to observe and recognize the positive outcomes of an innovation is essential to its adoption (Rogers, 2003; Scott et al., 2008).

After completing the initial interviews with each participant, their responses were analyzed, and common concepts and themes with their experiences were identified. These concepts and themes provided the basis for a more profound follow-up interview. This interview gave participants an opportunity to express more deeply and in greater detail the essence – their feelings, thoughts, concerns, or anxieties – of their experience with the intervention.

Individual Interview Data Analysis Plan

Interviews were transcribed using the Otter.ai software package. The researcher corroborated the accuracy of the transcription by listening to the recording and following along with the written transcription. In addition, the researcher recorded notes, comments, and corrections in the margins of the transcript to ensure the interview's integrity. Once the transcription correctness was confirmed, the researcher forwarded them to each participant to verify the accuracy of the content. After each participant approved their respective transcript, the researcher anonymized and uploaded them into the Delve analysis tool for thematic analysis and coding. Interviews were analyzed and coded using both deductive and inductive coding methods. The researcher reviewed the transcripts multiple times and applied content analysis to identify commonalities, create categories related to the participants' experiences, and code key phrases and sentences via open coding (Saldaña, 2013; Vaismoradi et al., 2013). Once initial coding was complete, the researcher reviewed the transcripts and codes again to ensure they were aligned with and preserved the intended meaning of the participants. As new concepts and topics emerged, the researcher revised and added codes as necessary (Saldaña, 2013).

An analyst triangulation approach was administered to verify and validate the coding and interpretation of the findings (Mitchell, 1986). This process enabled a more in-depth understanding of the findings and alleviated the potential for selective perception and bias in the

analysis (Mitchell, 1986). In addition, to increase the credibility of the findings, the researcher engaged an independent arbiter with expertise in qualitative research to act as an external auditor to examine and critique the data categorization, interpretation, and conclusions (Whittemore et al., 2001).

Journal Prompts

As a part of the study, participants were asked to maintain a weekly journal of their personal experiences with the intervention. This approach provided them with more autonomy in sharing different aspects of their experience than the more focused questioning of interviews (Harvey, 2011; Meth, 2003). Whereas interviews act as a method of direct data collection, journals were employed as a place for participants to reflect on their experiences in writing (Harvey, 2011), guided by four prompts (see Appendix M). These prompts were:

1. Today, I found myself thinking about how magic can... CRQ, SQ1, and SQ2
2. One of the things that I've noticed about using this technique is.... CRQ and SQ1
3. I never thought my client could do this until... CRQ and SQ2
4. In this experience, I'm struggling to figure out how to.... CRQ, SQ2, and SQ3

Each of the journal prompts, one through four, were designed to encourage participants to think more introspectively and deliberately about their experience with the magic trick-themed intervention. The subjectivity of human experience is the primary focus of phenomenology (Moustakas, 1994) and the journal prompts allowed participants to contemplate their experience with the magic trick-themed invention. Each participant's engagement with the innovation was specific and distinct. This personal experience is valued as uniquely genuine and wholesome (Raskin & Rogers, 2005).

Journal Prompts Data Analysis Plan

Journal entries were anonymized and imported into the Delve analysis tool for thematic analysis. Key phrases and sentences were coded through open coding during first cycle coding process (Saldaña, 2013; Vaismoradi et al., 2013). The journal entries were reviewed to ensure that codes were aligned with the text to maintain the participant's meaning. In second cycle coding process, highlighted words and phrases were compared across all journal entries, and, as new themes emerged, codes were revised, and new codes were created (Saldaña, 2013). Items were organized by the similarity of content. Similar concepts were collected and compared to develop categories and themes.

Follow-up Individual Interviews

Upon completing the thematic analysis of the initial interviews and the journals, five participants were selected for a second individual, semi-structured interview designed to delve deeper into the participants' experiences and impressions of the magic trick-themed intervention. Each of these five participants had expressed being skeptical of this approach or confused about the potential benefits. A follow-up interview allowed the researcher to explore more fully this thinking as well as other topics of interest expressed by the graduate students.

The audio of these interviews was recorded using the Zoom videoconferencing platform and transcribed using the Otter.ai online software. Transcriptions were provided to each participant to verify the transcript's accuracy and confirm the meaning and intent of their statements. Verified transcripts were anonymized and uploaded into the Delve analysis tool for thematic analysis applying the same coding approach as the initial interviews.

Follow-up Individual Interview Questions

Five graduate OT students were selected to participate in an individual, semi-structured interview consisting of questions developed from the meaning units or themes identified through

the analysis of the initial interviews (see Appendix L) and journal. These questions were developed to probe further each participant's interpretation of their experience with the phenomenon and engender a richer understanding of the nuances and context of that experience. Six identified sub-themes advanced the questions asked of each participant: first impressions of magic as a treatment technique, personal concerns throughout the delivery experience, motivations throughout the delivery experience, impressions or perceptions of personal fulfillment throughout the delivery experience, an awareness of personal lessons learned throughout the delivery experience, and final impressions of magic as a treatment technique.

1. Describe your *initial impressions* of magic as an intervention when you first heard about it in your coursework. CRQ

Question one sought to gain more insight into the participant's *first impressions* of using magic tricks as a potential treatment technique.

2. Describe your initial *concerns or apprehensions* when you heard that you were going to be using the magic trick-themed intervention with a client. SQ1 and SQ3

Question two sought to gain more insight into the participant's *initial concerns, anxieties*, thoughts, and opinions regarding their engagement with the magic trick-themed intervention.

3. Describe your *feelings and your perception of the role* you played when you heard that your client was successfully performing tricks for other people. CRQ, SQ3, and SQ4
4. Describe your *feelings and your perception of the role* you played when you saw your client get frustrated with learning the magic. CRQ, SQ3, and SQ4
5. Describe if there were *occasions when you felt uneasy or inadequate* about your ability to teach magic or connect with your client. CRQ and SQ2

Questions three through five were developed to further examine the participants' interpretation of their *motivations* through their engagement with the magic trick-themed intervention. This includes their frustrations and their enthusiasm throughout the delivery of the protocol.

6. Describe one *big idea that you discovered through your experience* using the magic trick-themed intervention. CRQ, SQ1, SQ2, and SQ4
7. Describe any events that *surprised you or were unexpected* resulting from your experience using the magic trick-themed intervention. CRQ and SQ4
8. Describe any *positive experiences* you had with the magic trick-themed intervention and how they made you feel about your engagement with the protocol. SQ2 and SQ4

Questions six through eight aimed at eliciting responses related to the participant's interpretation of their *personal fulfillment* resulting from engaging with the magic trick-themed intervention.

9. Describe any *characteristics about yourself* and any *concepts about the magic trick-themed intervention* you may have learned about yourself while using magic trick-themed intervention with your client. SQ2 and SQ4

Question nine sought to explore the participant's awareness of any personal lessons they learned about themselves and the magic trick-themed intervention through their experience.

10. Describe your *final impressions* of your experience using this magic trick-themed intervention. CRQ, SQ1, SQ2, SQ3, and SQ4

Question ten encouraged participants to elaborate on the overall interpretation of their experience with the magic trick-themed intervention. Participants were urged to share their *final impressions*, opinions, and judgments regarding their personal experiences delivering a magic trick-themed intervention in their fieldwork.

Follow-up Interview Data Analysis Plan

Follow-up interviews were transcribed using the Otter.ai software package. The researcher confirmed the accuracy of the transcription by listening to the recording and following along with the written transcription. In addition, the researcher recorded notes, comments, and corrections in the margins of the transcript to ensure the interview's integrity. After confirming the correctness of the transcription, the researcher forwarded them to the respective participant to verify the accuracy of the content. Once approval was received, each transcript was anonymized and uploaded into the Delve analysis tool. Content analysis was employed to identify and code key phrases and sentences (meaning units) relative to the study's research questions (Saldaña, 2013; Vaismoradi et al., 2013). Once initial coding was complete, the researcher continued to examine the coded meaning units to identify broader themes as they emerged from the analysis. Themes were also examined, combined, and re-organized as necessary to preserve the intended meaning of the participants.

Data Synthesis

Once the data analysis was complete, findings were synthesized into a coherent body of evidence that addressed the central research question and sub-questions. This synthesis was accomplished through the writing of the narrative, the storyline that incorporates and summarizes the identified themes as related by each of the participants. This task followed a four-phase process as outlined by Vaismoradi et al. (2013): (a) initialization, (b) construction, (c) rectification, and (d) finalization. Phases one through three occurred during data analysis.

Initialization

The first phase was conducted to prepare and organize the data for analysis. Initialization comprises three stages. These stages are reading transcriptions and highlighting key phrases and

concepts, open coding, and writing reflective notes or memoing (Stuckey, 2015; Vaismoradi et al., 2013).

Construction

This phase consisted of organizing codes and reducing them into themes. It involved classifying (reducing data into meaningful segments through typification), comparing (revising and connecting codes to delineate themes), labeling (sorting codes into groups of similar meaning and assigning labels that capture complete ideas), and defining (describing the process of how themes were identified and abstracted).

Rectification

This phase is also known as the verification phase. It required the researcher to immerse himself in robust analysis of the data and then distance himself from it to examine the accuracy of the coding process and identification of themes. The researcher identified the associations between themes and subthemes, connecting them to the phenomenon central to the study. It required the researcher to maintain a sense of self-criticism of the analysis process and attempt to relate themes to established knowledge through a comprehensive literature review. As themes were developed, they were connected to the literature and theoretical models.

Finalization

This final phase encompassed data synthesis where the data are represented in the narrative that provides the readers with a holistic perspective of the phenomenon being studied. The researcher produced a coherent story that describes and connects the identified themes from the data. It was guided by theoretical precedence (connecting theme and subthemes to precedential relationships), variation (accounting for every participant's experience), narrow

gaps (identifying and removing inconsistencies), and use of evidence and appropriate style to be creative in the narrative while remaining true to the data.

Trustworthiness

Lincoln and Guba (1985) proposed four criteria for qualitative research in pursuit of trustworthiness: credibility, transferability, dependability, and confirmability. Shenton (2004) expounded on these criteria to ensure that the qualitative researcher's study meets the rigorous standards of academic research. This section outlines the steps or procedures inform of rigor applied in meeting these criteria (Lincoln & Guba, 1995; Shenton, 2004).

Credibility

Credibility refers to the extent to which the study's findings accurately interpret the participants' original perspectives as identified by the original data (Lincoln & Guba, 1985; Korstjens & Moser, 2018). Credibility was achieved by employing triangulation, member-checking, prolonged engagement in the field, and peer review. These were applied to evaluate the methods and results of the study.

Triangulation

Triangulation of data collection methods was implemented to explore emergent themes among the participants. Interviews were reviewed multiple times to identify key phrases and sentences. Open coding was applied to categorize these concepts and classify them into themes (Saldaña, 2013). Analyst triangulation was employed to verify and validate the coding process and the interpretation of findings (Mitchell, 1986). Reflective papers and journals were subjected to scrutiny to identify words and phrases that describe the participants' experiences that may not have been revealed in the interview process. As new themes emerged, codes were revised, and new codes were created (Saldaña, 2013). Follow-up interviews provided additional checks and

balances, offering opportunities for the participants to correct, clarify, and enhance the emergent themes from all data sources (Patton, 2002).

Member Checking

The researcher's experience with the phenomenon – the magic trick-themed intervention – offered an *emic* or insider's perspective, which was beneficial during the interview process in understanding the meaning of the participants' experiences (Rossman & Rallis, 2017). This personal experience allowed for engagement in responsive interviewing techniques (Rubin & Rubin, 2012) and offered immediate member-checking or respondent validation (Lietz et al., 2006; Lincoln & Guba, 1985). As interviews were transcribed, copies were provided to each participant for their review to check for accuracy in their words and intentions, thereby allowing participants to confirm or challenge the veracity of the transcription (Lietz et al., 2006). Follow-up interviews provided additional opportunities to confirm the validity of interpretations of their experiences.

Peer Debriefing

Qualitative researchers often apply peer debriefing or signifiers to enhance trustworthiness and credibility (Lietz et al., 2006; Lincoln & Guba, 1985; Janesick, 2015). Competent qualitative researchers were included to review and evaluate the written documents (transcribed interviews, journals, and reflective papers). They also assessed the emerging and final categories identified from those documents and the final themes of the study (Janesick, 2015).

Transferability

Transferability demonstrates that the findings may have applicability in other contexts (Lincoln & Guba, 1985). Thus, while one cannot assure transferability, one can create the

conditions for transferability. These potential conditions were accomplished by providing rich contextual information about the site, participants, the magic trick-themed protocol, background data, procedures, and a detailed description of the phenomenon being studied.

Dependability

Dependability shows that the findings are consistent and could be repeated (Lincoln & Guba, 1985). It was addressed through rich, thick descriptions of themes, member-checks of the findings and interpretations, and an inquiry audit conducted by a third party of the research processes applied throughout the study. Hermeneutic phenomenology was chosen for this study because it provides systematic procedures (hermeneutic circle) identified by Heidegger (1926, 1971) and a structured qualitative analysis methodology proposed by Moustakas (1994). The implementation of overlapping data collection methods and a concise methodological description of the study were clearly outlined and supported by the literature allowing for replication.

Confirmability

Confirmability is a degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest (Lincoln & Guba, 1985). To ensure the confirmability of the study, triangulation was conducted to reduce the effect of researcher bias and provide a detailed description of the methodology. This process allowed the integrity of the research results to be carefully examined and described the audit trail using a data-oriented approach demonstrating how the data were collected and analyzed.

Ethical Considerations

Several ethical considerations were addressed throughout this study. Securing IRB approval from the research institution and permission from the study site before collecting data was necessary. Once the study received IRB approval, participants were recruited, and informed

consent was obtained. All participant identifying information will be protected, and pseudonyms were applied to preserve confidentiality. All collected data is being stored on an encrypted, password-protected external hard drive, maintained in a locked container for three years following the conclusion of the study, and will be destroyed upon expiration of the three-year period. As a form of reciprocity, participants were informed of the outcomes and implications of the study (Creswell & Poth, 2018).

Summary

The purpose of this hermeneutic phenomenological study was to examine the lived experiences of graduate OT students in the delivery of a magic trick-themed intervention in their fieldwork to gain a deeper understanding of the collective factors that may influence their decision to adopt or reject this approach in their future practice. This chapter provided a thorough description of the hermeneutic phenomenological research design that guided this study and characterized the participants and research setting. It continued with an explanation of the researcher's positionality, including an explication of the interpretive framework and philosophical assumptions. The chapter proceeded by outlining the research procedures, descriptions of the collection, analysis, and synthesis of the data, and the steps enacted to establish trustworthiness. Finally, the chapter addressed the ethical considerations confronted during the study and the measures taken to preserve the confidentiality of participants and the integrity and confidentiality of the study data.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this hermeneutic phenomenological study was to examine the lived experiences of graduate occupational therapy (OT) students who delivered a magic trick-themed intervention to adolescents with disabilities in their fieldwork to determine what factors may influence the adoption or rejection of the intervention in their future practice. Chapter four begins with a detailed description of the study participants, reporting the findings in four sections. In the first section, themes identified from the participant interview transcripts related to the core attributes of a successful intervention as outlined by Rogers (2003) are discussed. Second, the themes identified by analyzing the journal entries are discussed. The third section explores additional themes derived from the follow-up interviews relevant to the thoughts, impressions, and opinions of the participants' experiences implementing the magic trick-themed intervention in their fieldwork. The final section presents the participants' responses to the central research question and each sub-question, followed by a summary of the chapter.

Participants

The study was introduced to the graduate occupational therapy students enrolled in Fieldwork Experience 1 and Non-Thesis Research courses at SHP after participating in a presentation and interactive workshop on the therapeutic use of magic tricks in a clinical setting. Of the approximately 70 students present, 16 students requested more information and a consent form. Twelve graduate students signed and submitted the consent form within the seven-day requirement period. Two participants discontinued participation before the study began, resulting in 10 completing the study. Participants were 80% female and 20% male, with a median age of 25 years. In addition, persons of color comprised 20% of the participant sample, and Caucasians

were 80%. Pseudonyms are applied in Table 1 to describe the research participants.

Table 1

Research Participants

| Participant | Gender | Age | Race |
|--|---------------|------------|---------------------------|
| Faith Passionate about advocating and serving those with intellectual and physical disabilities to improve their overall health and wellbeing. Enjoys being outdoors with family, traveling, and learning about new cultures and people. Describes herself as organized, timely, and thrives in situations where she can maximize efficiency to help others or accomplish her personal goals. | F | 25 | Caucasian/White |
| Isaac Enjoys cooking, sports, socializing with friends/family. Very passionate about occupational therapy and overall health and wellness. A personal rehabilitation experience from a back injury during high school created a passion to help others. | M | 25 | Caucasian/White |
| Beth Outgoing, joyful, loves her family, adventurous, enjoys exploring, being physically active (sports), and social activities. | F | 23 | Caucasian/White |
| Ellen Enjoys helping others, especially people with disabilities; lives in a rural area in a southern state, and appreciates the lifestyle offered there. | F | 23 | Caucasian/White |
| Carl Active in his community; engaged in his hobbies; enjoys exercise and outdoor hiking. Performs as a DJ as a side gig but manages to juggle his schedule as a full-time OT student. Describes himself as vibrant, happy, and slightly goofy. | M | 25 | Asian/Caucasian |
| Jayne Describes herself as caring and compassionate; loves working with children. | F | 26 | African American/Black |
| Clarice Hard-working, driven, focused but enjoys time with family and friends; 8 years' experience working in camps with people with disabilities. | F | 24 | Caucasian/White |
| Connie Full-time occupational therapy student who enjoys puzzles, walks with her dog, and spending time with friends. | F | 25 | Caucasian/White |
| Rachel Full-time OT student, mother, and wife who loves the outdoors and animals. | F | 35 | Caucasian/White |

Table 1*Research Participants*

| Participant | Gender | Age | Race |
|--|---------------|------------|-----------------|
| Mattie | F | 23 | Caucasian/White |
| Enjoys the outdoors, hiking, painting, gardening, and cooking. | | | |

The ten graduate students who participated in the study were engaged in SHP's annual therapeutic magic camp as their fieldwork experience. Magic Camp is required for all students enrolled in Fieldwork Experience 1 and Non-Thesis Research courses. Sixty percent of the graduate students who participated in this study participated in two separate fieldwork sessions with clients with different diagnoses. All participants engaged with an adolescent on the autism spectrum as a part of their fieldwork; however, six also engaged with an adolescent diagnosed with Down Syndrome. Table 2 outlines the participants and their client diagnosis.

Table 2*Participant & Client Diagnosis*

| Participant | Fieldwork #1 Diagnosis | Fieldwork #2 Diagnosis |
|--------------------|-------------------------------|-------------------------------|
| Carl | N/A | Autism |
| Jayne | Autism | Down Syndrome |
| Faith | Autism | Down Syndrome |
| Isaac | N/A | Autism |
| Beth | Autism | Down Syndrome |
| Ellen | Autism | N/A |
| Clarice | Autism | Down Syndrome |
| Connie | Autism | N/A |
| Mattie | Autism | Down Syndrome |
| Rachel | Autism | Down Syndrome |

Note: Some participants (60%) had fieldwork experiences with two different clients with different diagnoses.

According to Rogers' diffusion of innovations theory (2003), intent is guided by *knowledge* and *persuasion*, ultimately leading to a *decision* to implement an innovation. Participants for this study were recruited after an informational presentation on the therapeutic application of magic tricks in a clinical setting and a hands-on interactive workshop providing them with instruction and task analyses on several magic tricks from the magic trick-themed therapeutic protocol (*knowledge*). The *persuasion* and *decision* stages of diffusion were pre-determined for the participants because involvement in the annual therapeutic magic camp is a requirement of the Fieldwork Experience 1 and Non-Thesis Research courses. Consequently, the data analysis focused on the influence of stages four and five, *implementation* and *confirmation*. *Implementation* is the application of the innovation in practice, and *confirmation* is seeking reinforcement of the decision to adopt or reject the innovation (Rogers, 2003). From this perspective, a hermeneutic phenomenological analysis (hermeneutic circle) considered (1) the participants' preconceived knowledge of the magic trick-themed intervention and how it changed, and (2) how participants revised their interpretation or understanding of the magic trick-themed intervention through their lived experience utilizing it.

Results

Interview transcripts and journal entries were analyzed to identify words, phrases, sentences, or paragraphs that described the participants' experiences with the phenomenon. These meaning units were utilized to develop themes related to the core attributes of a successful innovation (Rogers, 2003). Results are presented in four sections. In the first section, participant interview transcripts are analyzed. The themes identified by analyzing the participants' journal entries are discussed in the next section, followed by a discussion of additional themes that emerged from the follow-up interviews relevant to the participants' interpretation of their

experience utilizing the magic trick-themed intervention. The final section presents the participants' responses to the central research question and each sub-question, followed by a summary of the chapter.

Themes Explored in Interviews

In the final analysis, five main themes emerged from the data and were confirmed in the interviews and the journal entries. Each of the five core attributes of a successful innovation (as defined by Rogers (2003) in diffusion of innovations theory) served as the main concept header under which themes were deduced. First, the initial interviews of each participant were analyzed through the application of the Delve analysis tool. Then, employing inductive coding, meaning units (i.e., common concepts, opinions, and impressions) were identified, coded, and organized into themes as each aligned with the respective core attribute.

In the initial analysis, 35 themes emerged and were coded in the first four interviews. One additional concept emerged in the fifth interview; however, no new information was revealed in the analysis of interviews six through ten, only confirmation of the themes previously identified in interviews one through five. Table 3 illustrates the process by which the saturation threshold was achieved. The saturation assessment was determined by applying a base size of four and a new information threshold of $\leq 5\%$, resulting in thematic saturation at 4⁺¹ interviews.

Table 3

Thematic Saturation

| Interview Number | 1 | 2 | 3 | 4 |
|--------------------------|----------|----------|----------|----------|
| New themes per interview | 22 | 11 | 1 | 1 |
| # of base themes | | | | 35 |
| Interview Number | | 5 | | 6 |
| New themes per interview | | 1 | | 0 |

Table 3*Thematic Saturation*

| | | | | |
|--------------------------|---|----------------|---|----------|
| # of new themes in run | | | | 1 |
| # of new themes per run | = | $\frac{1}{35}$ | = | 3% |
| Interview Number | 7 | 8 | 9 | 10 |
| New themes per interview | 0 | 0 | 0 | 0 |
| # of new themes in run | | | | 0 |

Note: A Simple Method to Assess and Report Thematic Saturation in Qualitative Research (Guest et al., 2020).

Applying the hermeneutic circle, the researcher continued to examine, revise, and merge these initial themes to create a more detailed and nuanced interpretation of the participants' experiences with the magic trick-themed intervention. The 36 identified themes were combined and reduced to five significant themes aligned with each of the five core attributes of a successful innovation (Rogers, 2003). For example, "functional flexibility" and "novelty of approach" were merged into the single theme of "functional flexibility" because the novelty of the approach is directly associated with its flexibility as an intervention. Another example is the merging of "meaningful experience" and "positive interactions" into the single theme of "client-centered approach." Other categories were identified as minor because 40% or less of the participants identified with the concept (e.g., "build rapport" and "unexpected moments"). These were removed from the collection of themes for core attributes. Table 4 presents the final inductive themes derived from the application of the hermeneutic circle with their respective definitions. Table 4 also illustrates the number of participants whose comments aligned with the identified themes, indicated by an X in the appropriate box, during their initial interview.

Table 4*Main Themes Aligned to Core Attributes*

| Observability – the degree to which the adopter can observe the positive outcomes of an innovation in the client. | | | | | | | | | | |
|---|-------------|--------------|--------------|--------------|-------------|--------------|----------------|---------------|---------------|---------------|
| <i>Theme</i> | <i>Carl</i> | <i>Jayne</i> | <i>Faith</i> | <i>Isaac</i> | <i>Beth</i> | <i>Ellen</i> | <i>Clarice</i> | <i>Connie</i> | <i>Mattie</i> | <i>Rachel</i> |
| Developmental Socialization | X | X | X | X | X | X | X | X | X | X |
| <i>Comments related to the participants' observations of the perceived effectiveness of the magic protocol to encourage their client's socialization, confidence, engagement, and motivation.</i> | | | | | | | | | | |

Relative Advantage

Relative advantage refers to the degree to which the participants interpreted their experience with the magic trick-themed intervention to possess advantages over more traditional therapeutic modalities. Rogers' theory posits that the more favorable the perceived relative advantage, the more likely the innovation will be adopted. All participants identified concepts directly related to this attribute, which are summed up in the theme 'functional flexibility.'

Functional Flexibility

All participants commented on the functional flexibility and novelty of the magic trick-themed intervention. When they spoke of functional flexibility, it was always in the context of the modality's ability to address various client conditions and their therapeutic goals and objectives. Isaac said, "magic works out so many different things. There is a cognitive aspect but also fine motor skills, gross motor skills, and problem-solving aspects." Beth elaborated on her perception of the universality of magic articulating, "one of the things I love about this approach is that no matter what your abilities are, there's a part of it that connects with you."

The perceived underlying concepts in magic target areas of motor, psychosocial, cognitive, and sensory processing skills that lend themselves well to intervention. Carl confessed, “At first, I really didn't think magic was going to be any sort of benefit to our client. But doing it, the magic [not only] kept him engaged, therapeutically he was doing all types of movement.” And Ellen remarked, “I think it’s very functional – from fine motor skills to the way it sequences steps in the brain. I feel like it is not only fun, but it is [improving the skills] they use in their everyday lives.”

When commenting on the novelty of this method, Beth acknowledged that “magic is definitely an unorthodox way of [increasing] volition in clients.” Clarice agreed, “I feel like it’s a different way of doing therapy. This is something really fun, and you can adapt so many different magic tricks to focus on so many different aspects” of the client’s need. “The tricks,” she continued, “can motivate any age range of client, get them engaged, help develop rapport, and then be used therapeutically to improve fine motor and gross motor skills and many other things.” Faith added that “it also elicits a positive response from the client.” Rachel reinforced this belief, “there's a lot of things [the client] can [improve] from learning a magic trick. They don't think of it as doing exercises or therapy, but it helps them.” Connie was aware that it “is a fun activity” but recognized, as the therapist, that she could “also see progress in other areas.” Mattie summarized these opinions when she said, “there are so many benefits from an OT perspective, but [the client] just thinks they’re doing magic – but there’s a lot more going on!”

Complexity

Complexity is the degree to which the participants on a complexity-simplicity continuum categorize the magic trick-themed intervention. More specifically, how did the participants explain the ease or difficulty of the intervention to understand and implement into their

fieldwork. All the participants agreed that the training in the protocol was sufficient, and the magic tricks included were effective and easy to learn. Each of the ten participants identified two concepts directly related to the attribute of complexity – easy things and hard things. Their experiences are abridged in the theme ‘level of difficulty.’

Level of Difficulty

Most of the participants (70%) commented that, on the continuum of complexity, the magic trick-themed intervention was defined as ‘easy to understand and implement.’ The items required to learn and perform the tricks are common and easily found in most households. Carl was one of many who indicated the training they received and the access to instructional videos contributed to their success with the program, “Using your videos made it easy to understand, and then it was easy to teach the magic to our child.” Several, including Beth and Rachel, said, “it was easy to implement.” At the same time, two (Jayne and Connie) acknowledged that “incorporating magic wasn’t the easiest” at the beginning, but, as they gained experience performing the tricks, “it got easier to explain them” to their clients. Isaac supposed that “it’s a pretty simple and easy thing to pick up for occupational therapists or for other health professionals to add to their bag of tricks.”

The single most common complaint or ‘hard thing’ about utilizing this approach had nothing to do with the magic trick-themed intervention. Instead, every participant identified the delivery method – virtual – as the most challenging aspect of implementing the protocol. Working through the lens of a webcam or computer screen hindered their ability to offer hand-over-hand assistance to their clients. “I wish I was just there to help them” or “we weren’t able to give tactile cues” were comments that resonated with all the participants.

The virtual environment made the delivery more difficult, but, as a result, the participants acknowledged growth in several areas that they believed would be valuable in their future. As did many of the others, Rachel affirmed the value of applying “problem-solving techniques to adapt” tricks for her client. Carl summed up a majority consensus when he stated that working virtually “helped sharpen critical thinking skills and allowed [them] to implement therapeutic communication skills” they had learned in their coursework. The participants viewed this as an example of bringing evidence-based research into authentic experiences.

Compatibility

Compatibility refers to the degree to which the participants’ interpreted the magic trick-themed intervention as relevant and appropriate to their personal or professional values. While participants offered numerous comments about how meaningful the experience was for their client and the value of those personal interactions, only one theme emerged related to compatibility – client-centered care. The importance of being client-centered, seeing them for who they are, and striving to find methods that would motivate and engage them in their treatment, was identified by 100% of the participants.

Client-Centered Care

Each of the ten participants discussed the value of being “client-centered” in their treatment approach. Most of their comments were related to finding meaningful activities that provided positive interactions. This could only be accomplished when they allowed themselves to “see their clients” holistically, for who they were and not “framed by their diagnosis” or “grouping them together and making assumptions.”

An essential component of providing client-centered care is knowing the client and developing a relationship with them as a person. “As a provider, you always want to make sure

your client feels comfortable,” Isaac remarked, “to be open and honest about everything they’re going through.” Several participants indicated that magic aligns well with “the professional value of building rapport” and “wanting [their clients] to feel empowered.” Several also commented, including Isaac, that using magic added “a layer of personality, even a layer of emotion. It gives some insight as to who I am as a person, who I am as their therapist.”

Beth perceived that learning magic can help clients accomplish their goals and remarked, “one of the things I love about this approach is that you focus on the individual; you find what they’re good at, their strength. And through this process, you capitalize on what that strength is.” Most commented that using magic allowed them “to focus on the things that make that patient who they are” and then personalize the treatment approach accordingly. Magic tricks can be done with many different items and in different ways, so, according to Carl, “if you’re in clinic with a patient, find out about one of their interests and personalize your approach. I like that magic lets me do that.”

Trialability

Trialability refers to the degree to which the participants interpreted their perception of the practicality of the magic trick-themed intervention before adopting it in their future practice. Three major concepts emerged in the analysis – personal experiences, partner experiences, and cohort experiences. These are aggregated into the theme ‘personal experiences.’

Personal Experiences

Every participant expressed positive comments about their personal experience with the magic trick-themed intervention and the perceived value of engaging with a client to gain practical knowledge to determine its effectiveness. However, as they started their fieldwork, some were ambivalent about the impact the protocol might have. Initially, Carl thought, “this is

going to be kind of whatever,” but had a change of perspective at the conclusion stating, “I thoroughly enjoyed this experience!” Connie echoed the opinion of several of the participants when she said, “It’s completely different when you are doing it...[suddenly] this makes sense.”

Most voiced that the opportunity to implement the magic intervention in practice “made it very clear that this does work and it can work!” Faith indicated that “trying this approach first was imperative, really important for me to get to experience it before using it as an intervention” in my future practice. Many agreed with those sentiments, and some reminded me that implementing the magic trick-themed intervention was a course requirement “but having seen it, how it works,” they are now of the opinion that they are “more likely to use it in the future.” Isaac said the opportunity to implement the approach “really opened my eyes to the creativity behind [magic] versus just seeing it or hearing about it.” Jayne remarked, “It’s one thing to have somebody show you how it works, but then when you try it for yourself, you’re ‘Oh, it really does work!’ That makes you want to move ahead and implement it with whatever client you have.”

Most of the participants indicated that, without having had the opportunity to implement this approach in an authentic setting, they probably would not have recognized its value and versatility and, therefore, would not have considered it in the future. Many reflected on their experience and realized it “definitely changed my opinion” because they “got to see how it helps in different ways.” Mattie encapsulated what most of the participants expressed independently, “If I had just seen it, I wouldn’t know...and I probably would have put it to the side. But now that I’ve done it, I’ve seen how it works and it’s cool.” Beth eloquently summarized what all of the participants stated in various ways, “I realize [the magic intervention] is huge! Because I was able to participate in this, I see why it worked and that it would work in the future... it is easy to

learn and implement. I didn't think it was going to be helpful at all but being able to use it was huge."

Most participants (90%) presented positive and supportive comments regarding the team aspect of their first exposure implementing the magic trick-themed intervention with their client. Many said it was important for their "first experience to be with a partner" because, if they were experiencing any challenges, their teammate was able to "offer alternative methods" or "another perspective." Beth observed that "working with a partner created a sense of community," which she found very beneficial and motivating. Jayne and several others also recognized that "each of us brings different aspects to the magic" and their partner complemented what they were hoping to accomplish with their client.

Most mentioned that working with a partner increased their confidence to implement the technique in the future. "Working with a partner definitely helped build my confidence," Connie said. Several indicated that they were nervous when they started their fieldwork experience, "so it was good to have a partner that I could lean on if something wasn't going well." Faith affirmed that a partner offered a "sense of security" and created a "supportive and collaborative" environment. Carl said, "100% working with my partner helped me with my confidence to do this on my own."

After their fieldwork was complete, all the participants noted how much they valued their experience and indicated that they now "know what to expect" and feel better prepared to "problem solve and come up with adaptations" independently. Most participants believed that they could have been successful on their own. Still, they appreciated the way a partner provided opportunities to "take turns, back and forth, bounce off each other's ideas." Isaac maintained that

“doing this alone would be a different experience, but I think it would still have yielded the same results.”

Most of the participants (90%) also perceived their shared experience with their cohort as an essential aspect of their fieldwork. Many asserted that a “really neat part of the process was sharing stories and experiences” as a group. Faith proposed that “it brought affirmation on days where it was difficult and days where it was successful.” Faith distilled a universal sentiment that “getting to hear each other’s experiences and share this with one another...built rapport, and that was a great thing.” Mattie mentioned that “it was very interesting to hear everyone’s different experiences,” and Beth enjoyed “those times when we got together with the class and shared our stories about our clients.”

Many of the comments focused on the value of learning from one another’s experiences with their client, how tricks were modified, and “to see how someone’s client went about [a particular trick].” Isaac disclosed the value of sharing the experience with his cohort “as a student trying to figure out for myself the kind of occupational therapist I want to be in the future.” Jayne voiced a frequent belief supporting the cohort experience, “We didn’t realize the full benefits of magic, but from talking to everyone in the class, you gained an understanding of just how magic and OT work together and saw the benefits.”

Observability

Observability refers to the degree to which the participants’ perceived outcomes of the magic trick-themed intervention may influence their decision to adopt or reject this approach in the future. All ten participants offered their thoughts and opinions on this attribute based on client observations. Four specific concepts emerged from the analysis of the participants’

interviews – socialization, confidence and pride, increased client engagement, and motivation. These concepts are encapsulated in the theme ‘developmental socialization.’

Developmental Socialization

Socialization involves a process focused on developing social skills. Developmental socialization emphasizes the procedures by which an individual develops and shapes their self-concept and learns to fit into society (Perez-Felkner, 2013). Through their experience with the magic trick-themed intervention, participants in this study observed their clients demonstrating growth in several important aspects of developmental socialization. Four sub-themes were identified and are described below.

Socialization. The first significant sub-theme associated with perceived client outcomes was socialization. Most of the participants spoke directly about their observations of the effectiveness of the magic protocol to encourage their clients to engage socially with their families and peers. Every participant noticed improvements in the individual learning sessions and when they came together virtually as a social group. Connie stated, “The social aspect was huge for our client.” The individual sessions were good because the participant and client “got to really talk and build a strong rapport,” she remarked. “The magic experience really does have an impact on his social skills – we could see it!” But it was the Friday virtual group meetings that prompted the most substantial positive reaction from the participants. The graduate OT students, including Clarice, observed their clients “acted one way when they were with us than when they were with their peers – it was cool to see their interaction and how meaningful it was.” Beth said both of her clients thoroughly enjoyed learning the magic, and one of them “would take the tricks to day camp and show all his friends. He loved it!” Isaac observed the “biggest positive outcome was for sure the social interaction, watching him come out of his shell. And, as we

moved forward, he improved significantly.” Carl commented that his client “ended up becoming a social butterfly towards the end – that was a positive thing.”

Jayne recognized a greater level of social interaction from her client and detailed a conversation she had with her client’s mother. “When his mom came in for our final interview, she started crying. She told us how thankful she was for us and that she didn’t understand how much the magic had helped him [until the end].” When Jayne inquired more deeply about what she meant by that, she said the mother conveyed, “he now knows that he can do things on his own...it makes it easier for him to talk to people because he’s more confident with his interactions with other people and that’s huge.” But it was Connie who iterated the most significant emotional response, “It was the best thing I’ve ever seen in my life. It was so great. They had so much fun! It wasn’t even all about the magic, but it was about how the magic brought them all together.”

Confidence & Pride. The second sub-theme that emerged in this area from most participants was a perceived increase in their client’s level of confidence and sense of pride in their accomplishments. Jayne believed that “magic instills a certain level of confidence” that has the potential to transfer into other areas of their lives. She continued, “So, if you’re competent in that aspect, they’re probably thinking, ‘Oh, I could probably do this as well.’” Mattie recalled her client’s success and stated, “I do think that being able to do something that other people can’t do boosted his confidence.” Jayne said, “Our client felt really proud when he was successful. He would get discouraged, but when he finally accomplished it, it was so refreshing. He would jump up and say, ‘I did it!’” Other participants recalled similar events and perceived a “sense of pride and accomplishment.” Clarice remarked, “Seeing how excited he was when he finally got the magic trick was just so cool – such a proud moment. It was so amazing to see his excitement – it

was all around really positive!” Ellen agreed and stated, “I think the biggest positive outcome was confidence...magic really boosted her confidence when she performed her tricks” for others. Faith had a more generalized observation, “It think it was really encouraging and built self-confidence for our clients. I can see where it could be beneficial for building confidence or independence. Honestly, I think it could be beneficial for any child to learn magic.”

Increased Engagement. Seven of the ten participants addressed the level of engagement they observed from their clients when incorporating the magic tricks. One influencing factor of that engagement was the creative and fun approach the modality allowed them with their clients. For example, Faith observed that incorporating the magic intervention with clients provided opportunities “to be creative and fun for both the therapist and the client.” Rachel proposed that “using magic gives people a positive experience,” and Clarice voiced that “there are lots of interventions and ways to do things in therapy. This method is just so much more fun honestly.” Rachel agreed and said, “There’s a lot of things they can learn from learning a magic trick. They don’t think of it as doing exercises or therapy, but it helps them...pretending, being creative, having fun.”

Beth reflected on the “sense of mystery behind a magic trick” and the importance of “keeping and sustaining [the client’s] attention so they can reap the benefits of the therapy.” Faith said her “biggest success was [their client’s] ability to engage and remain engaged in the activity.” Carl expressed the opinion that “using magic would keep the patient more engaged because it's more interesting” and believed the magic intervention “would be better versus using traditional treatment.” According to Isaac, this level of engagement and creativity facilitated communication between him and his client. He expressed, “it was extremely important for him to

communicate his own emotions and how he was going through everything because we weren't guessing anymore. He would tell us."

Motivating Influence. Seven of the ten participants made statements about the level of motivation their clients demonstrated while learning the magic tricks. Clarice said, "A huge aspect of occupational therapy is trying to motivate the client. It can be really hard to motivate them outside of the therapy session. I think learning and teaching magic tricks is a way where they'll want to practice at home and want to perfect [the trick] so that they can show it to their friends." Participants also commented that this motivation was evidenced by their client's belief that they can now do something that their peers can't replicate. Based on her lived experience utilizing the magic protocol, Beth believed that "a child's motivation to participate in magic would be higher than using a traditional approach. Not all kids can do magic, and that, in itself, would motivate them...a huge benefit as a way to boost confidence."

Connie's experience with her client paralleled most of her cohort. Her client was eager and excited to learn the magic tricks and show them to others. She said, "I think that's the most important thing, that they want to participate. I definitely saw that in my client...he was so excited [about] every single magic trick we did." When clients assembled to share what they had learned, Ellen said her client "just flipped a switch" and was motivated to perform for the others. She continued, "And it was awesome! I really think they get important aspects like motivation and confidence from learning magic."

Themes and Sub-Themes Explored in Journals

All participants were asked to maintain a weekly journal of their personal experiences with the intervention. This approach provided them with more autonomy in sharing different aspects of their experience than the more focused individual interviews. In addition, the

Table 5*Themes and Sub-Themes Explored in Journals*

| Theme | Carl | Jayne | Faith | Isaac | Beth | Ellen | Clarice | Connie | Mattie | Rachel |
|--|-------------|--------------|--------------|--------------|-------------|--------------|----------------|---------------|---------------|---------------|
| Main Theme: Client-Centered | | | | | | | | | | |
| Sub-Theme: | | | | | | | | | | |
| Final Impressions | X | X | X | | X | X | X | X | | X |
| <i>Participants' final impressions of the magic trick-themed intervention after using it with their client.</i> | | | | | | | | | | |
| Main Theme: Personal Experiences | | | | | | | | | | |
| Sub-Theme: | | | | | | | | | | |
| Personal Concerns | X | X | X | | X | X | X | | | |
| <i>Concerns that were expressed by the participants about using the magic trick-themed intervention with a client.</i> | | | | | | | | | | |
| Main Theme: Developmental Socialization | | | | | | | | | | |
| Sub-Theme: | | | | | | | | | | |
| Motivation | X | X | X | | X | | | X | X | X |
| <i>Comments about the level of motivation shown by the camper and their ability to do something that others can't replicate.</i> | | | | | | | | | | |

Functional Flexibility

When the participants wrote of functional flexibility, it was always in the context of the magic intervention's ability to address various client conditions and their therapeutic goals and objectives. The sub-theme, *personal fulfillment*, emerged from participants' responses to the third prompt, 'I never thought my client could do this until...' It directly aligns with *relative advantage*, the first core attribute of a successful innovation, *relative advantage*, as detailed by Rogers' diffusion theory (2003).

Personal Fulfillment. This sub-theme emerged from participants' responses to the third prompt, 'I never thought my client could do this until...' Most of the participants (90%) journaled about moments during their fieldwork when they experienced moments and emotions that substantiated levels of personal fulfillment. Connie remarked that her "creative thinking improved" and "the more I got to know my client, the more confident I became in myself." Carl wrote that working with the magic and his client "helped sharpen his critical thinking skills and allowed [him] to implement therapeutic communication skills" that he had studied in class. Rachel experienced that same process and "used problem-solving techniques to try to adapt" the magic tricks for her client. Mattie wrote that "it is so fun to watch our child perform the trick and use his communication skills."

Jayne's client sometimes struggled with some of the tricks and required modifications to perform them. However, she wrote, "Watching him successfully meet the objective of the trick after making the modifications he needed and seeing how proud he was of his accomplishment brought joy to my heart and is honestly another fulfilling moment that I won't forget." She described these moments as a time when she felt she achieved "the greatest level of personal growth."

Ellen expressed a feeling of being invigorated when her client was successful with the magic, "her face lit up so bright knowing that she could now do it on her own!" Beth faced some "difficult moments" with her client. She doubted her skill level to take the lead in her fieldwork experience. Her client was on the autism spectrum, and she was "uneasy about the experience overall." She wrote, "Every great experience can have some difficult moments. I would be lying if I said everything went extremely smooth...but I would not trade this experience for anything. It far surpassed every expectation and eased any worry I once had."

Level of Difficulty

When the participants wrote about the level of difficulty, it was in the context of their lived experience with the magic trick-themed intervention and their perception of its ease or difficulty to understand and implement into their fieldwork. This sub-theme, *lesson learned*, emerged from participants' responses to the fourth prompt, 'In this experience, I'm struggling to figure out how to...' Their comments were related to *complexity*, the second core attribute defined by Rogers (2003) in diffusion theory. Complexity is defined as the degree to which an innovation is categorized on a complexity-simplicity continuum and is regarded as easy or difficult to understand and implement.

Lessons Learned. All participants journaled that they had learned specific things about themselves or the process during their fieldwork experience with the magic trick-themed intervention related to its complexity. Many believed that engagement with their client and the magic protocol pushed them to "step outside of [their] comfort zone." Clarice specified that she "learned to interpret [her] client's perspective," and Connie noted she gained a deeper understanding of the "importance of volition and motivation" as they pertain to her client. "If the client is not motivated, their participation and performance are going to suffer. It is always important to be mindful," Clarice wrote. This was a common impression among most of the participants. Carl also noted that the longer he worked with his client, he was "able to learn what motivated him to participate" and then integrate those motivations into his teaching sessions. Clarice accounted that discovering "what is intrinsically motivating to her client is a skill I acquired." She continued, "This is not only by observing, but also intuitively listening and having a deep understanding."

Flexibility was another quality that many of the participants discovered about themselves through the perspective of complexity. Most of the participants recognized the need to adjust both for the skill ability of their client and their learning pace. Rachel wrote that she had to “learn that, even though I had a plan in place for each session, that didn’t mean our client was going to adhere to it.” Jayne described that one of her biggest challenges was learning to “adapt the trick to the abilities.” She understood that she was “able to make modifications and adapt the magic tricks to [her] clients abilities and sensory sensitivities.” She credited learning a “few tips and tricks from members” from her cohort. Carl wrote about flexibility and preparedness, “Using magic with a client helped me learn that no matter what setting I find myself in, I always need to be quick on my feet and plan my next move.” Faith acknowledged that she was “challenged to be flexible and recognize that success was going to look different” for everyone. Isaac recognized the difference between performing a trick himself and teaching it to someone else – “a completely different skill set is needed.”

Several participants wrote about the value of encouragement. Mattie recorded that she learned how “to motivate my client when he was frustrated, which will be very helpful in my career.” Clarice also wrote about the influence her words often had on her client, “I have learned the importance of encouraging him because then he will give it a try. That’s very motivating for me.” Connie commented on the importance of being enthusiastic in the delivery of the intervention, “I noticed that the more enthusiastic we were, the more he allowed himself to open up.”

Patience was another quality that was commonly addressed by most of the participants. Ellen indicated that her “first day was a little rough...but [being patient and understanding] made the next two days amazing!” Faith wrote that “magic camp taught me the importance of being

present and celebrating every success intentionally.” Finally, Beth provided a precis that most of the participants expressed, “Overall, I loved this experience. I learned so many important skills and lessons that I will carry with me into practice one day.”

Client-Centered

The initial interviews revealed that participants had meaningful experiences with their clients through the utilization of the magic technique. These are summarized in the theme client-centered, which is aligned to the third core attribute of diffusion theory (Rogers, 2003), *compatibility*. The sub-theme of *final impressions* emerged from participants’ responses to the first prompt, ‘Today, I found myself thinking about how magic can...’ Most of the participants journaled about how they interpreted their engagement with and utilization of the magic trick-themed intervention, indirectly contrasting their initial impressions with their final judgments or perceptions of the protocol.

Final Impressions. Connie perceived that “magic can allow an individual to express themselves [through] their own interpretation of the magic trick” and “grow in their self-confidence.” Ellen observed that “magic can bring confidence to children and give them something to show others.” Mattie wrote similar impressions of “how magic can improve the confidence and self-esteem” of youth with disabilities. Jayne remarked, “I realized that magic was able to provide a sense of accomplishment for [my client], and the pride was all over his face.” Faith observed that “it quickly became apparent the positive role that magic can have” on the youth but acknowledged that it also significantly impacted her.

After witnessing her client’s newfound self-confidence and pride, Beth wrote, “That’s when I realized was this is all about...magic has given him an outlet to show others that he is not only capable but extremely talented.” Clarice recalled how her client would learn the trick,

practice without saying a word, just focus on the movements, and then “he decided to demonstrate the trick to me. This is where I finally saw him come out of his shell. I visibly saw his self-confidence grow. In such a short amount of time, I noticed how magic can truly give a person motivation and self-confidence like never before.”

Many of the participants’ comments were comparable to those Beth wrote in her journal, “Being able to perform magic tricks is special! Giving these children the platform and opportunity to feel important, special, and talented is something I am so proud to have been even a small part of. It was the sweetest and most joy-filled experience.”

Personal Experiences

Every participant expressed positive comments about their *personal experiences* with the magic trick-themed intervention, the fourth significant theme that emerged in the data analysis. Their comments related to the perceived value of engaging with their client to gain practical knowledge of the intervention and to determine its effectiveness. This theme is aligned with the fourth core attribute, *trialability*, of diffusion theory (Rogers, 2003). One sub-theme emerged in the journal entries from the majority of the participants – *personal concerns* – related to their personal experiences and the opportunity to implement the technique in an authentic environment.

Personal Concerns. Most of the participants journaled about their concerns and anxieties, which revolved around their client’s diagnosis and how that would influence their interaction with them utilizing the magic protocol. For example, Clarice journaled about her first meeting with her client and how outgoing and responsive he was during that interview. However, he became “very shy at their first magic session, and it became difficult for him to pay attention.” She was very concerned that he would never be able to “learn an entire magic trick.” Jayne was

worried about how she “would manage issues working with a child with autism.” Ellen wrote that she “was a little nervous about how my camper would respond to people she did not know.” Beth recorded that she had apprehension because she “was unsure of the structure, timing, and overall how it would play out.” Faith wrote that she was anxious about “how our camper would react to learning magic and to me.” Carl was more concerned about time management, balancing his “busy schedule” with finding “a consistent three times a week” to meet with his client.

Developmental Socialization

Of the five significant themes revealed in this study, developmental socialization is the most challenging to summarize. However, it directly aligns with the final core attribute of diffusion theory (Rogers, 2003), *observability*. In the adoption-rejection decision process described by Rogers (2003), this is one of the most important aspects. The sub-theme that emerged from the analysis of the participants’ journal entries is directly aligned with *observability* and *developmental socialization*.

Motivations. This sub-theme was revealed from the participants’ responses to the second prompt, ‘One of the things that I’ve noticed about using this technique is...’ Analyzing the journals revealed what motivated the participants during their fieldwork experience with the magic trick-themed intervention that influenced their clients’ developmental socialization. Rachel was committed to developing a solid rapport with her client and ensuring he “felt like part of the team.” To accomplish that feat, they agreed to “all applaud together when things went well and laugh if things didn’t go as planned or if we made a funny mistake.” Clarice found “great motivation” when her client “correctly does the trick” because he “just lights up the room.” She said he would “smile and exclaim, ‘I did it! I did it! I did it!’ and that was extremely reassuring and made my week!” When she learned that he was performing tricks for his friends, she could

see how much that “boosted his confidence! And seeing how motivated he was to learn was so motivating” for her because she “realized I was making a difference in his life.”

Jayne found motivation in her client’s dedication to “learn the magic and work through his frustration and make it happen.” She had concerns that he might not “reap the full benefits of learning the magic” but recognized that she was wrong. “He was amazing,” she wrote. “And I never stopped to realize how his dedication was having such a positive impact on me.” One very positive note in her journal read, “I can’t wait to move forward and see the excitement tomorrow brings!”

Carl wrote that he found his motivation in “teamwork and being able to be there” for his client when he needed encouragement. Beth was inspired to keep a positive attitude by her client because of “how hard he was working and how proud of him we were.” Mattie noted that she was driven by seeing her client “go from crying and frustrated to smiling and excited because he was able to do the magic tricks all by himself.” Faith resonated with those words and wrote about her perception that “magic can promote self-confidence” and provided her client “with a skill that none of his classmates know how to replicate.”

Themes and Sub-Themes Explored in Follow-Up Interviews

The hermeneutic circle is a dialogical approach that incorporates feedback and further discussion with study participants that combines the perspective and experience of the interpreter and the phenomenon being studied (Dowling, 2007). Following the analysis of the initial interviews and the journals, the researcher identified concepts worthy of more in-depth investigation. Consequently, the researcher conducted follow-up interviews with five participants.

Participants were 60% female, 40% male, and 40% persons of color. Utilizing the Delve analysis tool, the researcher thematically analyzed the transcripts of the follow-up interviews to explore the connection between the identified themes to the last two stages of Rogers' (2003) five stages of the innovation-decision process. Stages one through three – *knowledge*, *persuasion*, and *decision* – were addressed in the formal presentation of the magic trick-themed intervention in Fieldwork Experience 1 or Non-Thesis Research courses, as noted earlier. The inductive concepts examined in the follow-up interviews were directly related to the last two stages of this process: *implementation*, the application of the innovation in practice, and *confirmation*, seeking reinforcement of the decision to implement the innovation.

By analyzing the responses from the follow-up interview, the researcher was able to identify seven sub-themes associated with the participants' experiences and aligned these with each of the five main themes identified in the interviews. Table 6 presents these seven sub-themes, their definitions, and their alignment with the main themes that emerged from the initial interviews. It also illustrates the number of participants whose statements aligned with the identified sub-themes, indicated by an X in the appropriate box, during their follow-up interview.

Table 6

Themes and Sub-Themes Explored in Follow-Up Interviews

| <i>Theme</i> | <i>Carl</i> | <i>Jayne</i> | <i>Faith</i> | <i>Isaac</i> | <i>Beth</i> |
|---|-------------|--------------|--------------|--------------|-------------|
| Main Theme: Functional Flexibility | | | | | |
| Sub-Theme: | X | X | X | X | X |
| Emotional Responses | | | | | |
| <i>Positive and negative emotions the participants expressed about their experience with the functional flexibility of the magic trick-themed intervention.</i> | | | | | |

Table 6*Themes Explored in Follow-Up Interviews*

| <i>Theme</i> | <i>Carl</i> | <i>Jayne</i> | <i>Faith</i> | <i>Isaac</i> | <i>Beth</i> |
|---|-------------|--------------|--------------|--------------|-------------|
| Main Theme: Level of Difficulty | | | | | |
| Sub-Theme: Worries & Concerns | X | X | | | X |
| <i>Concerns the participants expressed, either before or during, about their experience with the magic trick-themed intervention.</i> | | | | | |
| Main Theme: Client-Centered | | | | | |
| Sub-Theme: Change in Thinking | X | X | X | X | X |
| <i>Participants change in thinking about the magic trick-themed intervention as they worked with it and their client.</i> | | | | | |
| Main Theme: Personal Experiences | | | | | |
| Sub-Theme: Skepticism | X | X | | X | X |
| <i>Participants' first impressions of the magic trick-themed intervention before using it with their client.</i> | | | | | |
| Sub-Theme: Self-Doubt | | X | X | X | X |
| <i>Feelings participants shared about their abilities to implement the intervention.</i> | | | | | |
| Main Theme: Developmental Socialization | | | | | |
| Sub-Theme: Surprises | | X | X | | X |
| <i>Things the participants recognized about themselves through the use of the protocol that surprised them.</i> | | | | | |

Functional Flexibility

The first of the significant themes was identified as *functional flexibility*. This theme is aligned with the first core attribute of a successful innovation, *relative advantage* (Rogers, 2003).

The analysis of the follow-up interviews recognized one sub-theme associated with *relative advantage*. This sub-theme was *emotional responses* and described the positive and negative emotions the participants expressed about their lived experiences with the functional flexibility of the magic-theme intervention.

Emotional Responses. All the participants affirmed experiencing positive feelings or emotions about their engagement with the magic trick-themed intervention that contributed to their interpretation of the *functional flexibility* of the approach. These emotions were prompted by their observation that the magic tricks increased their client's confidence and social interaction with others. "When I heard that he was showing his tricks to other people," Isaac said, "I was proud. I was so happy and so excited. We accomplished something here. It was very rewarding." Faith commented that when she heard her client was performing for others, it "was really encouraging." She felt a "sense of accomplishment" that she was "doing a good job." She added, "His competence built my confidence in my ability to do this."

Given the diagnosis of the clients (Autism or Down Syndrome), most experienced some challenges when learning the magic tricks and required additional practice; however, the intent of the magic trick-themed intervention is to motivate them to practice, thereby improving skills and encouraging socialization through performance. Jayne's client struggled at times. She shared that he would say, "I can't do it. I can't do it." Through her encouragement and patience, he mastered each trick. She recalled, "I was so proud. He was so happy, and I was so happy. It felt good. I realized that the magic was working on his confidence and sense of accomplishment. It was very fulfilling for me and put a few tears in my eyes." Carl shared that he felt that same feeling of gratification saying, "I'm not going to lie, it was heartwarming to hear that he was performing tricks for others. Knowing that was very fulfilling. I was excited...[felt] proud and

accomplished.” Beth echoed those emotions and said, “I was so surprised when he told us that he had done magic for others. I felt amazing. I played a part in helping him feel secure and confident. I was really excited.” Isaac stated that increased socialization was one of his client’s most prominent goals, “On our exit interview with his mom, she got choked up because she saw this. We were so proud of him – all that happened through magic. It enabled us to build that rapport and do therapy in a fun way. It was so great, so awesome, so gratifying!” Faith experienced a slightly different encounter with her client. “When I asked him how he performed his magic trick, he said “‘A magician never tells his secret.’” Wow, what a transformation – he was now a magician! That made me feel like maybe I was a bit of a magician too.” She acknowledged there were moments of frustration, but they “were balanced with great moments that made me feel excited, proud, accomplished, and confident.”

All participants also shared negative feelings or emotions about their engagement with the magic trick-themed intervention that contributed to their interpretation of the *functional flexibility* of the approach. Most of these feelings resulted from observing their client’s frustration when learning a new magic trick. Carl commented, “Honestly, [when I saw him get frustrated], the best way I can describe it is I was a little sad. I wanted him to know that it’s okay to fail sometimes at these tasks.” Isaac remarked, “When [my client] would get frustrated learning a magic trick, it made me feel like I was doing something wrong or I was saying something incorrect. It made me question my own communication skills.” Beth shared a similar viewpoint, “I was frustrated because if he’s not understanding my directions, then I need to re-evaluate how I’m presenting it. I didn’t want him to be frustrated. This is not supposed to be something that causes him stress.” Like the others, Jayne expressed the same sense of frustration, “I felt so bad when he would get frustrated. Like, at some point, I felt like maybe I failed him,

and that was the worst feeling ever! I felt discouraged.” All agreed that this feeling of frustration motivated them to “switch gears on how we were teaching the trick.” Faith offered a slightly different perspective: “When he did get frustrated, honestly those were the times where I felt the least confident. But seeing him get frustrated was a friendly reminder that he’s normal. He might have autism, but we all get frustrated at times.”

Level of Difficulty

Each participant’s lived experience with the magic trick-themed intervention was interpreted through the perspective of its complexity or *level of difficulty* to understand and implement. The follow-up interviews allowed them to illuminate this aspect of their experience. One important sub-theme emerged in this analysis as more than half of the participants expressed some *worries and concerns* before or during their experience with the phenomenon.

Worries and Concerns. Carl was “a little apprehensive about being able to execute the session, make it flow.” Beth was frustrated, anxious, and afraid of “so many unknowns,” and she indicated that “was stressful.” Jayne said, “at the beginning, I was just nervous asking myself, ‘How am I going to do this?’” That caused her to “panic a bit.”

Among all participants who expressed some concern, one dominant thought was not wanting to disappoint anyone. Beth said, “I was more nervous thinking that I didn’t want to waste this kid’s time. I didn’t want to waste these parents’ time.” She wanted to “serve them well” but was concerned about them experiencing “expectations that I’m not fulfilling.” Carl agreed and said, “I just didn’t want to disappoint [my client]. I didn’t want this to be a letdown for him.”

Client-Centered

In both the initial interviews and the journal entries, the participants strongly identified the importance of a *client-centered* approach in their practice. This theme is aligned to the third core attribute of diffusion theory (Rogers, 2003), *compatibility*. One sub-themed that emerged in the journal entries was revealed in the participants' *final impressions* of the magic trick-themed intervention. In the thematic analysis of the follow-up interviews, a similar but different sub-theme became apparent – *change in thinking*.

Change in Thinking. Initially, all but one of the participants had expressed skepticism about the effectiveness of this approach when they were first exposed to it. One participant indicated she was apprehensive but excited. As a result of implementing the magic protocol with their clients, all the participants reflected on their initial impressions and offered a change in their perspective. Beth enthusiastically stated, “Using magic is the most unique type of therapy that I’ve experienced. It’s such an awesome idea. I never thought of magic as being a modality. It’s so unorthodox but so effective.” Carl was also a skeptic but recalled, “As time went on, it started to make more sense, and I changed my thinking. It was such a positive experience!”

All the participants initially did not understand the purpose of having their clients learn magic tricks. However, after his fieldwork experience, Isaac recognized this opportunity made him “think about magic, to really look at it and see that, at the core, it’s exactly what we do as professionals.” Faith stated that her experience “contributed to a shift in perception” of her abilities. She said, “[My client] was gaining so much from learning magic – and that was a pivotal moment for me.” Beth indicated that, through her experience, she was able to “make the connection between magic and what we were trying to accomplish. It was very eye-opening.”

Isaac presented another perspective. He said, “I think what magic does is break what people think of our role [as a therapist]. It builds trust. It is a fun activity that ties into the bigger

picture of treatment.” Jayne revealed that “magic and working with magic” helped her “overcome self-doubts and build confidence.” She concluded, “Now that I’m on the other side of my fieldwork experience, I’ll definitely include magic in my practice.” Isaac declared, “It’s stealth therapy – [the client is] doing therapy while having fun and has no idea how many skills they are working on.”

Personal Experiences

The focus of this study was on the lived experiences of the graduate OT students with the magic trick-themed intervention. These personal experiences revealed themselves in different ways. In the initial interviews, they interpreted their experience with the intervention and its effectiveness in a positive manner. In their journals, they shared their personal concerns and anxieties about implementing the intervention with their client. In the follow-up interviews, the participants offered insights into their first impressions of the magic trick-themed approach (*skepticism*) and their feelings about their abilities to implement it (*self-doubt*). These are explored as sub-themes of their *personal experiences*.

Skepticism. All participants, except one, expressed a level of skepticism about the functionality and benefits of utilizing magic tricks as a treatment approach when they were first exposed to the approach. Jayne said, “I won’t say that I was completely dismissive, but I was a little hesitant and skeptical.” Carl stated, “I’ll be honest. I was just very skeptical and thinking, what does this have to do with OT?” His thinking was supported by what he heard from his cohort members. He continued, “I was second-guessing it...hearing from everyone else saying, ‘what are we doing with magic? What is this?’” Beth confirmed that she heard the same sentiments, “me and a lot of my friends were, ‘What is this?’” She also disclosed that she was “confused” because she “didn’t really know how this would get to the end goal of therapy.” Isaac

and Jayne were both “curious.” Isaac said he “didn’t want to write it off, but I was curious.” Jayne remarked that she “couldn’t understand how this would apply” to her clients.

Faith brought a completely different perspective to this approach. In researching where she would apply for graduate school, she learned that magic camp was a part of the occupational therapy program at SPH. She said, “I had also heard from other graduates about the magic camp program, so I was definitely excited to get into this, to be a part of magic camp. Mixed in with this excitement was a bit of apprehensiveness.”

Self-Doubt. Most of the participants shared specified emotions associated with their perception of their abilities to implement the intervention before the experience. For example, Beth said, “At the beginning, I think there was a lot of fear of the unknown, the fear of my ability to lead and to help and to delivery this method of therapy – magic.” Isaac mentioned that his apprehensions were centered around performance. He was aware that he would have to practice but stated, “one of my biggest apprehensions was that I wouldn’t be good enough.” Jayne was not confident that she would be able to meet her client’s needs stating, “there’s that self-doubt again. I don’t know why. I was just concerned that whatever he would need in that moment, I wouldn’t be able to give it to him.”

Beth reflected on her overall exposure to magic stating, “I have no background with magic, so what the heck am I doing? This is going to be crazy! How am I going to do this?” She doubted her “ability to lead consistently and effectively” and became “nervous,” thinking that she “didn’t want to waste this kids’ time or these parents’ time.” Faith indicated she was “excited” but apprehensive about her “skill level at the time...and how this was going to play out.” She said, “I would be lying if I said that there weren’t times that I felt uneasy or nervous.” These moments required her to “self-reflect” and “develop a different mindset about [her]

abilities.” Jayne observed that she was “worried that everything I thought about myself not being able to do this was going to be so evident to everyone else...but when we got started, all of that went completely out the window.”

Developmental Socialization

The theme *developmental socialization* encompasses many aspects of the lived experiences of the participants. It was evidenced through the personal growth, motivation, and confidence of each of the graduate OT students as they shared their observations about the progress of their clients. Observability, the final core attribute of diffusion theory, is critical in the decision to adopt or reject an innovation. The follow-up interviews revealed some *surprises* when more than half of the participants recognized aspects or qualities about themselves that were discovered through the implementation of the magic protocol.

Surprises. Jayne was “definitely surprised” by her “level of empathy.” She said, “I didn’t really know that about myself.” She also said her “level of patience” is something that she “discovered.” She did not think she would “have enough patience to work with children, especially kids with autism,” but “realized yes, I do!” Beth confessed that she had an expectation that she “would struggle to hold [the client’s] attention” but was surprised that he “was so engaged, so responsive, so into the magic.” She said, “I was not expecting that.” Faith had “preconceived ideas of what [her client’s] abilities were going to be” and was “surprised by his brilliance, his creativity – and how the magic brought that out for him.” Carl recalled how he was “skeptical about the whole idea of magic and surprised [when] that all turned around, and then I got excited.”

Summary of Themes

Heidegger's hermeneutic circle was employed to examine the lived experiences of the graduate OT participants in the delivery of the magic trick-themed intervention. In this process, understanding is revealed by transitioning from the phenomenon to the personal interpretations of the researcher and back to the phenomenon. The researcher analyzed the data and continued to examine, revise, and merge initial themes to create a more detailed and refined interpretation of the participants' experiences. Table 7 presents the main themes and sub-themes that emerged through the process of the hermeneutic circle. Table 7 also includes the definitions for each theme and sub-theme and their alignment with the core attributes of Rogers' diffusion theory (2003).

Table 7

Themes and Sub-Themes Aligned with Core Attributes of a Successful Innovation

| Relative Advantage | The degree to which an innovation has an advantage over other methods. |
|-------------------------------|--|
| Functional Flexibility | Comments relating to the flexibility and adaptability of the magic intervention to deal with a variety of skills and abilities. |
| <i>Personal Fulfillment</i> | <i>Emotions and feelings expressed by the participants about their experience using the magic trick-themed intervention with their client.</i> |
| <i>Emotional Responses</i> | <i>Positive and negative emotions the participants expressed about their experience with the functional flexibility of the magic trick-themed intervention.</i> |
| Complexity | The degree to which an innovation is categorized on a complexity-simplicity continuum and is regarded as easy or difficult to understand and implement. |
| Level of Difficulty | Comments made about what was easy and challenging about implementing this approach. |
| <i>Lessons Learned</i> | <i>Lessons that participants expressed they had learned about themselves during the implementation of the magic trick-themed intervention with their client.</i> |
| <i>Worries & Concerns</i> | <i>Concerns the participants expressed, either before or during, about their experience with the magic-themed intervention.</i> |

Table 7*Themes and Sub-Themes Aligned with Core Attributes of a Successful Innovation*

| | |
|-----------------------------|--|
| Compatibility | The degree to which an innovation is relevant and appropriate to the values and experiences of the potential adopter. |
| Client-Centered | Comments related to finding meaningful activities that provide positive interactions by seeing clients for who they are and not by their diagnosis. |
| <i>Final Impressions</i> | <i>Participants' final impressions of the magic trick-themed intervention after using it with their client.</i> |
| <i>Change in Thinking</i> | <i>Participants change in thinking about the magic trick-themed intervention as they worked with it and their client.</i> |
| Trialability | The degree to which an innovation may be tried before being fully put into practice. |
| Personal Experiences | Comments related to the personal experiences with the intervention and the perceived value of utilizing it with a client. |
| <i>Personal Concerns</i> | <i>Concerns that were expressed by the participants about using the magic trick-themed intervention with a client.</i> |
| <i>Skepticism</i> | <i>Participants' first impressions of the magic trick-themed intervention before using it with their client.</i> |
| <i>Self-Doubt</i> | <i>Feelings participants shared about their abilities to implement the intervention.</i> |
| Observability | The degree to which the adopter can observe the positive outcomes of an innovation in the client. |
| Developmental Socialization | Comments related to the participants' observations of the perceived effectiveness of the magic protocol to encourage their client's socialization, confidence, engagement, and motivation. |
| <i>Motivation</i> | <i>Comments about the level of motivation shown by the camper and their ability to do something that others can't replicate.</i> |
| <i>Surprises</i> | <i>Things the participants recognized about themselves through the use of the protocol that surprised them.</i> |

Note. Diffusion of Innovations (Rogers, 2003)

Research Question Responses

This study was guided by a central research question and four sub-questions designed to investigate the lived experience of graduate occupational therapy students who delivered a magic trick-themed intervention to adolescents with disabilities in their fieldwork. The aim was to determine what factors may influence the adoption or rejection of the intervention in their future practice. Five themes were identified from the interviews and journal entries in the previous sections. This section associates the emerging themes with the appropriate research question.

Central Research Question

What are the lived experiences of graduate occupational therapy students in the delivery of a magic trick-themed intervention?

Each participant experienced a unique encounter with the protocol. Most started the SHP annual magic camp program with feelings of skepticism or confusion. Several doubted their abilities to lead a magic session effectively, and Beth recounted her “fear to delivery this method of therapy.” However, throughout their interaction with the intervention, they gained clarity and an understanding of the connection between learning magic tricks and occupational therapy goals. Isaac said, “traditional methods don’t always add [a] layer of interest, trust, and building rapport.” One impression he had from his experience with the magic intervention was its potential to “create a better relationship with your client.” Beth initially “never thought of magic as being a modality.” However, her experience changed those preconceived ideas, and she concluded, “magic is so unorthodox, but it is so effective.” Faith supposed that “using magic is the most unique type of therapy” she had experienced. Her lived experience with the intervention “opened the door to creativity and confidence.”

Sub-Question One

How are *relative advantage* and *complexity* of this magic trick-themed intervention interpreted by the graduate occupational therapy students?

Relative Advantage

Relative advantage is the degree to which an innovation has an advantage over other methods. The graduate OT students perceived that the *functional flexibility* (the first significant theme identified) of the magic trick-themed intervention was more advantageous than what is offered in more traditional methods of therapy. Their experiences persuaded them that this approach could be adapted to a variety of client skills, abilities, and diagnoses. Isaac stated, “magic works out so many different things. There’s a cognitive aspect but also fine motor skills, gross motor skills, and problem-solving aspects.” Beth generalized her perception and commented, “one of the things I love about this approach is that no matter what your abilities are, there’s a part of it that connects with you.” Ellen remarked, “I think it’s very functional – from fine motor skills to the way it sequences steps in the brain. I feel like it is not only fun, but it’s [improving the skills] they use in their everyday lives.”

All participants offered their thoughts and beliefs about the probability of incorporating the magic trick-themed intervention into their future practice. The majority (90%) remarked that the prospect of adopting this approach would be “very high” and perceived potential applications for it across a variety of populations. However, one participant who recognized and acknowledged numerous positive qualities of the magic protocol indicated a low probability that she would implement it in the future, stating, “I think the magic program is helpful, but it would be kind of a last option [for me] because it doesn’t motivate me as much. I would have to practice and add more work.”

Complexity

Complexity is the degree to which an innovation is categorized on a complexity-simplicity continuum and is regarded as easy or difficult to understand and implement. The majority of the graduate OT students interpreted the complexity of the magic trick-themed intervention as easy to understand and implement (*level of difficulty*). Isaac suggested that “it's a pretty simple and easy thing to pick up for occupational therapists.” Two participants conceded that when they began their fieldwork, “incorporating magic wasn't the easiest.” However, as they became more familiar with the approach through consistent exposure, “it got easier.”

The participants' most significant challenge was delivering the intervention to their clients utilizing a virtual platform rather than being physically present with them in the room. All stated their frustrations with this delivery method and commented that it impeded their ability to offer hand-over-hand assistance when appropriate as their clients learned the magic tricks. However, the participants offered no other comments relating to the complexity attribute.

Sub-Question Two

How did the graduate occupational therapy students interpret the importance of *trying* the magic trick-themed intervention?

Trialability is the degree to which an innovation may be tried before being fully implemented into practice. The participants interpreted the importance of trialability through their *personal experiences* (experiential learning) with the intervention. They also provided insights on the value of sharing this experience with their partner and their cohort. While the researcher recognized the value of the totality of these experiences, the emphasis of this study is the personal lived experience of the participants. Therefore, their *personal experiences* with the intervention were of the most importance.

Most participants disclosed that the opportunity to implement the magic trick-themed approach with an actual client aided in recognizing the value and versatility of the intervention. Connie said, “It’s completely different when you are doing it, and you get to see the struggles.” She affirmed that being able to try the intervention first made “it really clear that this does work and it can work” and that the experience “definitely changed my opinion.”

Rachel reminded the researcher that she “was kind of being forced to implement this” as a part of her Fieldwork Experience 1 coursework. However, she conceded that “having seen it, how it works” definitely influenced her decision “to use it in the future.” Faith agreed that “trying this approach first was imperative.” However, it was Clarice who summarized what most of the participants conveyed when she said, “I think it’s so important to actually do this and see the results...learning from doing and seeing how cool it would be in the clinic one day, that’s very important.”

Sub-Question Three

How is this magic trick-themed intervention *compatible* with the personal and professional values of graduate occupational therapy students?

Compatibility is the degree to which an innovation is relevant and appropriate to the values and experiences of the potential adopter. The participants perceived the magic trick-themed intervention to be compatible with their values, especially the principle of *client-centered care*. One aspect of client-centered care is personalizing treatment to each patient, thereby preserving some of their independence as they attain their personal therapeutic goals. Carl recognized that “if you’re in clinic with a patient,” an aspect of client-centered care would also include finding “out about one of their interests and personalizing your approach.” He concluded, “I like that magic lets me do that.” Beth concurred with that perception and remarked,

“one of the things I love about this approach is that you focus on the individual; you find what they're good at, their strength. And through this process, you capitalize on what that strength is.” Another aspect of client-centered care is developing rapport. Faith believed the magic trick-themed intervention was aligned with “the value of building rapport” and “eliciting positive interactions.” According to Clarice, client-centered care also considers interventions that allow clients “to feel empowered” and maintains that the magic protocol accomplished that objective. All participants indicated that their experience with the intervention was compatible with their personal and professional values.

Sub-Question Four

What are the perceived *outcomes* of this magic trick-themed intervention by the graduate occupational therapy student that may influence their decision to adopt or reject this approach?

Observability is the degree to which the adopter can observe the positive outcomes of an innovation in the client. The participants recognized four areas of positive client outcomes with and through the magic trick-themed intervention summed up in the theme *developmental socialization*. These areas of sub-themes were socialization, confidence and pride, increased engagement, and motivation.

Increased socialization by their clients was the most notable observation. Many of them commented on watching their clients “come out of their shell.” Connie observed that the “social aspect was huge” for her client and determined “the magic experience [had] an impact on his social skills.” Clarice noted that her client “immediately wanted to show off and do his tricks” for others. Carl declared that his client “ended up becoming a social butterfly.” Isaac observed the “biggest positive outcome was for sure the social interaction.”

Most of the participants also observed an increase in their clients' confidence and sense of accomplishment. Ellen noted that “the biggest positive outcome was confidence” for her client. Jayne said her client “felt really proud when he was successful.” Faith generalized her observation stating, “I think [the magic] was really encouraging and built self-confidence for our clients. Honestly, I think it could be beneficial for any child to learn magic.”

Participants observed that the magic trick-themed intervention increased their client's level of engagement and motivation. Participants attributed this increase to the element of enjoyment that is integrated into learning and performing magic. For example, Faith observed that incorporating the magic intervention provided clients an opportunity “to be creative and fun.” Rachel suggested that “using magic gives people a positive experience,” and Clarice voiced that “there are lots of interventions and ways to do things in therapy. This method is just so much more fun honestly.” Connie recognized the value of motivation and said, “the most important thing was they want to participate.” Isaac presented an interesting perspective about how incorporating magic can “set a completely different tone to the session. All of a sudden, you're not just the therapist who's going to be working with them. You're this cool guy who just blew my mind with this little magic trick. And the next thing, you know, ‘hey, can you teach me how to do that?’”

Summary

This chapter began with a detailed description of the study participants and reported the findings in four sections. The significant themes identified from the participant interviews were discussed in the first section. These themes were aligned with the five core attributes of a successful innovation as outlined by Rogers' (2003) diffusion of innovations theory. The central theme associated with *relative advantage* was the perceived *functional flexibility* of the magic

trick-themed intervention. For the attribute of *complexity*, participants considered the *level of difficulty* of the intervention to be easy to learn and implement. The only negative comments offered by the participants were connected to the virtual platform that was utilized to deliver the approach and not the intervention itself. Third, the attribute of *compatibility* was singularly associated with the participants' value of providing *client-centered care*. Fourth, participants interpreted the *trialability* attribute as an essential aspect of their *personal experiences*. Their lived experience with the magic trick-themed intervention was valuable in overcoming their skepticism and understanding the connection with the goals of occupational therapy. Finally, the fifth core attribute, *observability*, was addressed by each participants' perceived positive outcomes from their clients as a result of their engagement with the magic trick-themed intervention related to the theme *developmental socialization*. The graduate OT students primarily observed improvements in their client's ability to socialize with others. However, they also observed increased confidence, engagement, and motivation in their clients.

Second, the themes identified by analyzing the journal entries are discussed in the next section. Their journals revealed their personal concerns with utilizing the intervention, primarily centered on how their client would respond to them and learn the magic tricks. They also wrote about what motivated them throughout their fieldwork experience and the personal fulfillment they experienced through the success of their client and their own success with the magic. They noted the lessons they learned during their experience, including critical thinking, flexibility, and the value of encouragement. Finally, they all recorded the change in their perspective from the initial exposure to the magic method and their final impressions after utilizing it with their clients. Each of these sub-themes was associated with the main themes that emerged from the analysis of the initial interviews.

The third section explored additional sub-themes derived from the follow-up interviews with several participants. The graduate OT students discussed their initial skepticism regarding the magic trick-themed intervention, their doubts about their level of skill and ability to work with their client effectively, and their concerns before and during their experience with the magic trick-themed intervention. They shared the positive emotions they felt because of their success with the intervention and the negative emotions because of the frustrations they experienced. Many of them discovered qualities about themselves through engagement with the intervention that was unexpected. Finally, they reflected on their initial impressions of the magic trick-themed intervention and the change in their perspective as a result of their lived experience with it.

The final section presented the participants' responses and the identified themes to the central research question and each sub-questions. Each participant's personal experience with the magic trick-themed intervention was summarized and associated with the appropriate sub-question. Through their relationship with the intervention, they gained clarity and an understanding of the connection between learning magic tricks and the goals of occupational therapy. The five significant themes that emerged from this study were functional flexibility, level of difficulty, client-centered care, personal experiences, and developmental socialization.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this hermeneutic phenomenological study was to examine the lived experiences of graduate occupational therapy (OT) students who delivered a magic trick-themed intervention to adolescents with disabilities in their fieldwork. The aim was to ascertain the factors that may influence the adoption or rejection of the intervention in their future practice. Chapter five begins with a summary of the findings written from the perspective of the themes that emerged in the data analysis. In addition, the theoretical and empirical implications are discussed. The chapter concludes with a discussion of the delimitations, limitations, and future research recommendations.

Discussion

Many studies have examined the benefits of incorporating the arts in education and healthcare. However, the application of simple magic tricks is a relatively new approach. Therefore, only a few studies have investigated this methodology, especially within a special education population. In addition, relatively few studies have considered the factors that may influence a practitioner's decision to implement a new approach in their practice. For example, previous literature has examined the experiences of the therapist-therapist relationship or the therapist-client relationship. However, no specific research was found that investigated a therapist's experience with a new intervention. As the application of magic tricks has only recently received attention from practitioners and researchers, no studies were identified that explored practitioners' perceptions, attitudes, knowledge, or experience with a magic trick-themed intervention. The practitioner's perspective is central to gaining a more robust and meaningful understanding of the factors that motivate them to incorporate new interventions,

technologies, and techniques into their practice. This study may be the first to investigate this gap in the literature.

After thematic analysis of three data sources (interviews, journal entries, and follow-up interviews), five main themes emerged that aligned with the core attributes of a successful innovation as outlined by Rogers' (2003) diffusion of innovations theory. The following sections will address the interpretation of these themes. Next, an examination of the implications for practice and the theoretical and empirical implications will be discussed. Delimitations and limitations are considered next, followed by recommendations for future research.

Interpretation of Findings

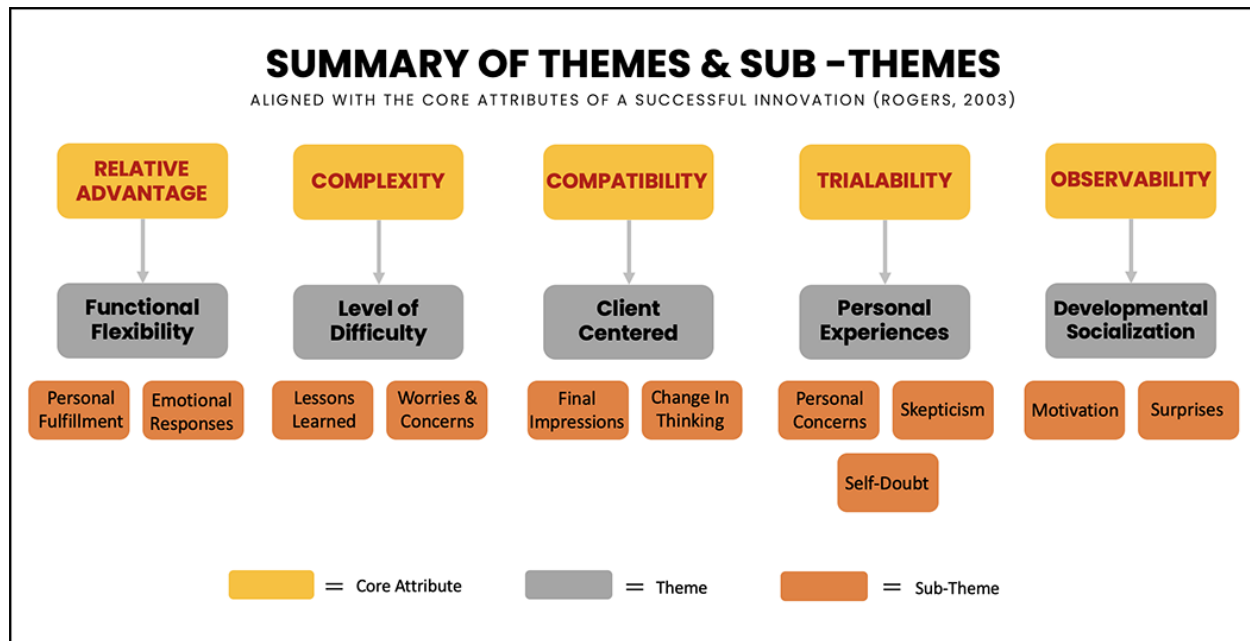
This section begins with a summary of the five main thematic findings from the analysis of each data source, as discussed in Chapter Four. I then provide an overview of the significant interpretation of the themes. Finally, two significant interpretations are identified: the significance of the innovation-decision process and core attributes as posited by Rogers in diffusion theory and the value of trialability as the most significant interpretation in this study.

Summary of Thematic Findings

Figure 6 outlines the themes and sub-themes derived from the participant interviews and journal analysis. They are associated with each of the five core attributes of a successful innovation described by Rogers (2003). These themes are all relevant to the purpose of the study and are the basis for my interpretations.

Figure 6

Summary of Themes & Sub-Themes



Note: Thematic findings aligned with Core Attributes (Rogers, 2003)

My interpretation of the research findings is summarized in the sections below. First, you will read my interpretation of the value of diffusion theory in examining the lived experiences of graduate OT students. This theory provided a valuable framework that allowed me to apply my expertise with the magic trick-themed intervention to more profoundly and systematically understand the participants' experiences. The second was my interpretation of the value of trialability in guiding the participants through their experience with the magic trick-themed intervention.

The Value of Diffusion Theory. This study employed diffusion of innovations theory as the theoretical framework. It investigated the magic trick-themed intervention from the perspective of graduate occupational therapists based on Rogers' framework (2003). I interpreted the findings of this study to confirm two essential aspects of this theory. The first was the graduate OT students' awareness of the five stages of the innovation-decision process throughout

their experience. The second was their appreciation of the five core attributes of a successful innovation related to the magic trick-themed approach.

Innovation-Decision Process. The five stages of the innovation-decision process consist of (a) *knowledge*, exposure to the innovation, and some understanding of how it operates; (b) *persuasion*, development of a favorable or unfavorable attitude toward the innovation; (c) *decision*, engagement that leads to adopting or rejecting the innovation; (d) *implementation*, the application of the innovation in practice; and (e) *confirmation*, seeking reinforcement of the decision. Providing the required training to the graduate OT students on the magic trick-themed protocol strategically aligned with the first stage – *knowledge*. The *persuasion* and *decision* stages were pre-determined for the participants because involvement in the annual therapeutic magic camp was a requirement of the Fieldwork Experience 1 and Non-Thesis Research courses. Consequently, my interpretation of the findings was focused on the influence of stages four and five, *implementation* and *confirmation*. *Implementation* is the application of the innovation in practice, and *confirmation* is seeking reinforcement of the decision to adopt or reject the innovation (Rogers, 2003).

I recognized how influential both of these stages were throughout the lived experience of the participants with the magic protocol. The findings revealed that, through their active engagement (implementation) with the technique, the participants were well-positioned to observe the consequences of their involvement with the magic and its effects on their clients (confirmation). The stages were instrumental in shaping their final impressions of the intervention and, consequently, their decision-making process.

Five Core Attributes. Rogers described five core attributes of a successful innovation (Rogers, 2003; Scott et al., 2008). *Relative advantage* is the degree to which an innovation has an

advantage over previous methods. *Compatibility* is the degree to which an innovation is relevant and appropriate to the values and experiences of the potential adopter. *Complexity* is the degree to which an innovation is categorized on a complexity-simplicity continuum and is regarded as easy or difficult to understand and implement. *Trialability* is the degree to which an innovation may be tried before being fully put into practice (experiential learning). And *observability* is the degree to which the adopter can observe the positive outcomes of an innovation.

My interpretation of these findings revealed the importance of these core attributes in the participants' understanding of their lived experiences with the magic trick-themed intervention. The emergence of each of the five themes explicitly aligned with each of the five core attributes. While I may have had some basic knowledge of these attributes, I had not identified them as central or essential in the adoption process. The findings of this study informed me more fully of their value and affirmed their influence on the participants. Rogers's diffusion of innovations theory (2003) provided a worthy framework that allowed me to examine the participants' experiences systematically. This examination engendered beliefs, understandings, and meanings synthesized into relevant themes.

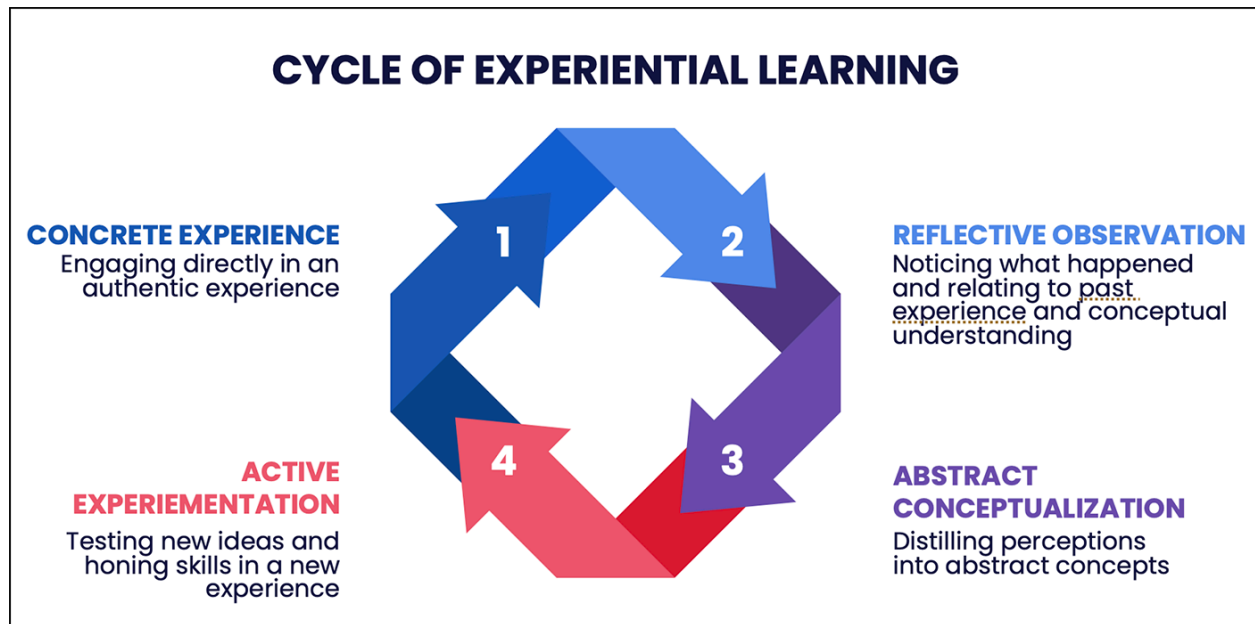
The Value of Trialability. My interpretation of the value of trialability on the participants is perhaps, the most significant of this study. I mentioned it second because it carries little importance without confirming the theoretical framework. Through this attribute, I was able to gain a more comprehensive and distinct understanding of the lived experience of the participants with the magic trick-themed intervention. I am convinced that trialability allowed the participants to deeply understand their individual strengths and weaknesses, anxieties and concerns, motivations and successes. However, trialability also allowed them to attain an

extensive and dynamic understanding of the magic trick-themed intervention's connections to meaningful occupation, inspiration, and the goals of occupational therapy.

Learning by doing is not a new engagement strategy (Kolb, 1984). However, my interpretation of this study revealed that *trialability* is directly associated with the fourth stage of the innovation-decision process, *implementation*. *Trialability* is also very closely aligned with what Kolb (1984) described as *experiential learning* and Lewis and Williams (1994, p. 5) called “*learning by doing*.” Figure 7 illustrates Kolb’s model in which “experiential education first immerses learners in an experience and then encourages reflection about the experience to develop new skills, new attitudes, or new ways of thinking” (Lewis et al., 1994, p. 5). This process encapsulates Rogers’ definition of *trialability* in which potential adopters of an innovation test and evaluate it before deciding to continue its implementation in the future. Trialability (*learning by doing*) was a significant factor in how the participants perceived their fieldwork experience and influenced their decision to incorporate this approach into their practice.

Figure 7

Cycle of Experiential Learning



Note. Kolb's Cycle of Experiential Learning (1984).

I gained a greater understanding of the importance of motivation for both the therapist and the client by analyzing the participants' experiences with the magic through the perspective of *trialability*. Gamboa et al. (2018) recognized client motivation as a critical problem in rehabilitation because treatments can be slow, repetitive, uninteresting, or lack a clear purpose. The findings reveal the participants in this study became increasingly aware that a magic trick can exploit client curiosity which, in turn, becomes a powerful motivator to engage them in the learning of the trick. In addition, activities that provide an alternative to therapy routines and allow clients to have fun in the therapeutic process can improve client motivation (Gamboa et al., 2018).

Initially, all but one participant expressed skepticism about the effectiveness of this approach when they were first exposed to it. However, at the conclusion of their fieldwork experience, all graduate OT students indicated they gained a greater understanding of the connection between learning magic tricks and the goals of occupational therapy. In addition, all of the participants journaled about their engagement with and utilization of the magic trick-

themed intervention. They perceived that the magic approach affected their client's motivation and confidence, sense of pride and accomplishment, and increased anticipation of socializing with others. They also perceived they experienced personal growth in several areas through their lived experience with the intervention.

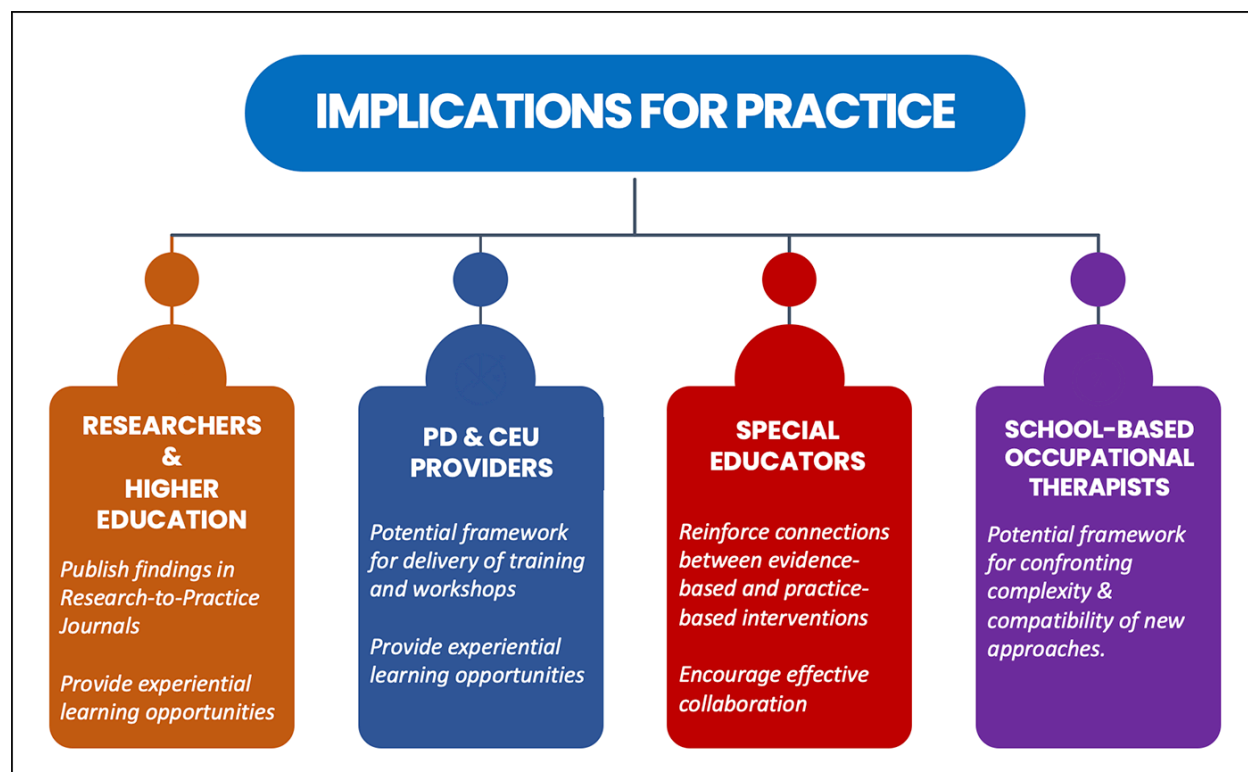
I believe this study confirmed that the graduate OT students grew to appreciate and acknowledge that learning and performing simple magic tricks offered their clients exciting and novel opportunities (functional flexibility and client-centered). However, they also recognized that this technique provided positive social experiences for their clients, which further increased their motivation and, consequently, their outcomes (developmental socialization). This effect increased and strengthened the participants' motivation to adopt this approach in their future practice.

Implications for Practice

These findings may have practical significance for various stakeholders, including researchers, higher education professors and instructors, and individuals who provide professional development training for educators and ancillary service providers, specifically special educators and school-based occupational therapists. In addition, the lived experience of the participants may provide recommendations for each of these groups to consider potential changes, adaptations, and modifications that should be addressed to facilitate the competent and confident implementation of novel, evidence-based, arts-integrated practices in the special education setting. Figure 8 illustrates these potential stakeholders.

Figure 8

Implications for Practice



Researchers

There exists a lack of trust in research and researchers, especially among special education professionals (Cook et al., 2013; Kinyaduka, 2017; Nelson et al., 2009). Often, this distrust results from how research findings are disseminated and shrouded in statistical analysis and academic language. This study revealed that research findings must be easily accessible and respectful of the targeted practitioners if they are to be successfully and effectively applied in an authentic learning environment. According to Rogers (2003), intent is guided by knowledge and persuasion. Without knowledge, persuasion is inconceivable, making intent an impossible achievement. Practitioners often rely on practice-based evidence they acquire from their classroom experiences because, as noted, trialability is highly influential in the decision to adopt or reject a new approach. Researchers should publish their findings in research journals, but they should also be encouraged to consider research-to-practice journals that associate their results (knowledge) with practical application (persuasion) to promote their implementation (intent).

Higher Education

For higher education professors and instructors, the findings of this study may inform them of more practical and effective ways to teach methods and strategies of instruction to their students. However, knowledge of a strategy or intervention may not be sufficient to encourage future professionals to incorporate it into their practice. Providing experiential opportunities for students with novel approaches during their coursework, either through in-person demonstrations or virtual interactive presentations from an expert, will expose them to the innovation (knowledge), which may lead to a favorable attitude toward it (persuasion). Knowledge and persuasion guide intent; therefore, providing these experiential opportunities may persuade them (decision) to engage with the innovation through application in practice (implementation). Ultimately, this application may motivate them to seek reinforcement of their decision and lead to the adoption of the new technique (confirmation) in the future.

Continuing Education & Professional Development Providers

For providers of continuing education and professional development, this study demonstrates the influence of each of the five core attributes on one's decision to adopt or reject a new approach. CE and PD providers should consider these characteristics as a potential framework for their presentations or workshops. Considering each of these attributes may inform them on more effective ways to deliver content. Exposure to new ideas, new perspectives, and new knowledge does not necessarily increase expertise and expand knowledge. Active engagement (trialability) with the content through interactive activities may improve comprehension, boost confidence, and assist in their evaluation of relative advantage, complexity, and compatibility. This process may directly encourage them to adopt the new technique or incorporate the new knowledge into their existing practice.

Special Educators & School-Based Occupational Therapists

School-based occupational therapists (SBOT) are critical members of the ancillary services team. They support students' academic and non-academic outcomes; however, they also focus on mental, behavioral, and social health. The success of students with disabilities often relies on a strong relationship and effective collaboration between special educators and SBOTs. These practitioners often grant more substantive value to practice-based evidence constructed on their experiences or those of their colleagues. The magic trick-themed intervention is evidence-based; however, the participants' lived experiences in this study reinforced the significance of practice-based evidence – *trialability* and *observability* – in adopting a new intervention.

One significant result of this study was the effect of the magic trick-themed intervention on the social competence and self-confidence of the clients. Additionally, the study also revealed a consequential outcome on the confidence and motivation of the participants. This result may be instrumental in prompting special educators and SBOTs to explore the advantages of newly discovered, evidence-based practices, especially arts-based approaches. These findings may also provide a framework to guide them in resolving concerns related to the complexity and compatibility of a new intervention. Children with disabilities can only benefit – functionally and academically – from innovative, unconventional, research-based practices when implemented with fidelity in classroom instruction or therapeutic activities. In addition, special educators and SBOTs also fail to benefit from professional growth and development opportunities – including efficacy, proficiency, and satisfaction – when they do not integrate these techniques into their practice.

Theoretical and Empirical Implications

This section examines the theoretical and empirical implications of the findings. The theoretical implications were investigated from the perspective of Rogers' diffusion of innovations theory (2003). More specifically, this examination considered the interpretation of

the findings through the two constructs that Rogers outlined in this theory – the five stages of the innovation-decision process and the five core attributes of a successful innovation. The empirical implications were examined through the knowledge derived from the lived experiences of the graduate occupational therapy students with the magic trick-themed intervention.

Theoretical Implications

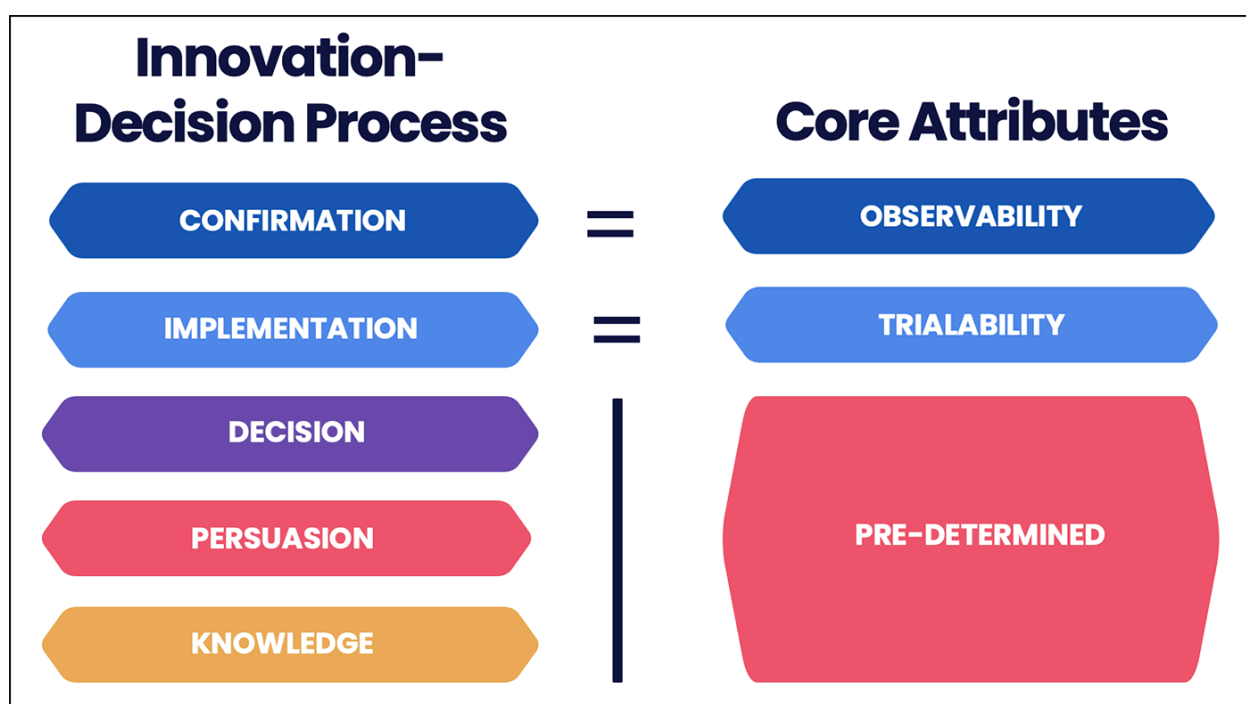
This study was guided by the theoretical framework of diffusion of innovations theory. Specifically, the study examined the lived experiences of graduate OT students from the perspective of the five stages of the innovation-decision process and the five core attributes of a successful innovation (Rogers, 2003). As stated earlier, the findings confirmed these two foundational constructs. First, the graduate OT students were exposed to the phenomenon and gained an understanding of how it should be implemented (*knowledge*). Second, their coursework requirements determined attitude and engagement with the phenomenon (*persuasion* and *decision*). Third, the application of the phenomenon or innovation in practice was an integrated part of their fieldwork experience (*implementation*). Finally, their reflection on their experience with the innovation provided them with the underpinning to support their decision to adopt or reject the magic trick-themed intervention (*confirmation*).

This study also examined the second component of this theory, the five core attributes of a successful innovation. The themes that emerged from the participants' experiences with the magic trick-themed intervention aligned with each of the five attributes: functional flexibility (*relative advantage*), level of difficulty (*complexity*), client-centered care (*compatibility*), personal experiences (*trialability*), and developmental socialization (*observability*). The researcher's interpretation of these findings corroborated the belief that diffusion of innovations theory was an appropriate theoretical framework for this investigation.

The finding revealed that both components of the theory were influential throughout the lived experience of the participants with the magic protocol. These structures were valuable in gaining a more detailed understanding of the factors that influence the adoption or rejection of an innovation. As the findings emerged, it became evident that *trialability* and *observability* (which are closely aligned with *implementation* and *confirmation*) were critical in the decision-making process for the participants. Figure 9 illustrates the relationship between these characteristics.

Figure 9

Relationship Between Innovation-Decision Process and Core Attributes



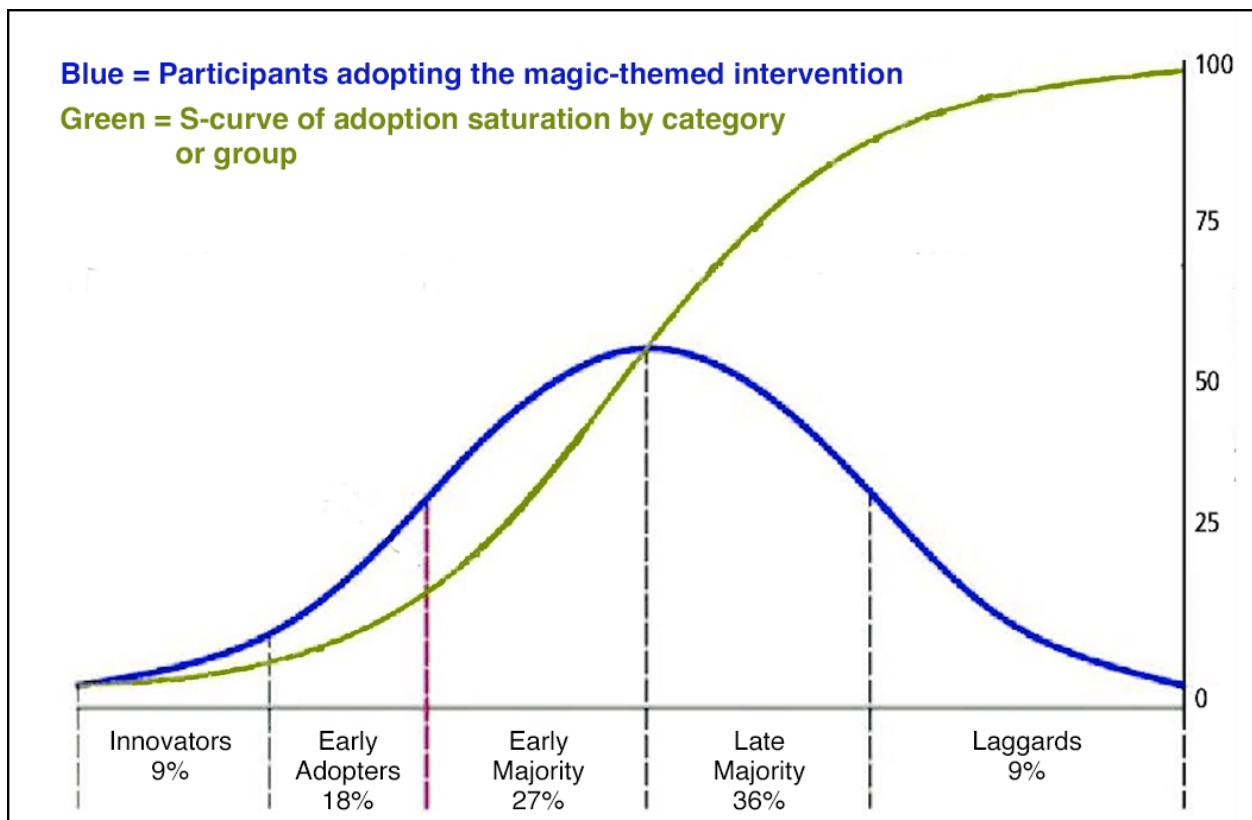
Note. Diffusion of Innovations (Rogers, 2003).

One other aspect of diffusion of innovations theory is the five categories of adopters described by Rogers (1962, 2003). Early in diffusion research, there was no standard classification system to describe adopters of an innovation. This hindered researchers in their ability to compare their findings and emphasized a need for standardization. One reoccurring or

dominant position was the S-shaped curve of innovation adoption. The curve demonstrated that diffusion emerged with a few adopters and accelerated until half of the individuals in a system had adopted it, which led to a slower rate of increase as fewer people adopted the innovation. Diffusion research has consistently produced this S-curve in adopting innovations beginning in 1943 with the hybrid corn seed study at Iowa State University in Ames, Iowa (Ryan & Gross, 1943). While this was not a focus of this study, there was some evidence to support these ideal types. Figure 10 illustrates the S-curve and percentages of the adopters in this study.

Figure 10

S-Curve and Percentages of Adopters



Note. S-curve based on Rogers Diffusion of Innovations (1962, 2003) modified from Wikipedia

The first category is *innovators*, those who actively seek out new ideas. The innovator is a gatekeeper in the flow of new ideas and launches them within the system. In this study, it was

elementary to identify *the innovators*. The gatekeeper was the chair of the occupational therapy program. This is the first group indicated on the S-curve and typically represents the smallest percentage of the group to adopt an innovation (Rogers, 1962, 2003). In this study, innovators represented 9% of the potential adopters.

The second category is *early adopters*, opinion leaders, and those individuals in leadership roles who embrace change. In this study, several participants were more excited about this approach when learning of its application. For example, Faith and Isaac came to the study enthusiastic about implementing the magic trick-themed intervention. As a result, they were identified as the early adopters and are the first significant group indicated on the S-curve. Early adopters typically represent 13.5% of the group; however, this category represented 18% in this study.

The third category is *early majority*, typically not leaders but those who are willing to adopt new ideas when presented with evidence of their success. In this study, Carl, Connie, and Jayne were influenced by the evidence they observed through their experience with the protocol. This group is critical in the diffusion process, leading to critical mass, and is represented in the mid-section of the S-curve. The early majority typically represents 33% of the group; however, this category represented 27% in this study.

The fourth category is *late majority*, those who are skeptical of change but eventually adopt when supported by the majority. In this study, Rachel, Beth, Clarice, and Ellen eventually experienced a change in their thinking and were motivated to adopt the approach. The *late majority* comprises the majority of the upper third of the S-curve, typically representing 34% of the group. However, in this study, this category represented 36%.

The fifth and final category is *laggards*, those who are highly skeptical and conservative in their approach. This category is the last group to adopt an innovation in a social system. In this study, Mattie was the laggard who, though she experienced a change in her perception of the magic trick-themed intervention, decided it would be a last-resort option for her in practice. Therefore, she is indicated in the upper flattening of the S-curve, typically 16% of the group of adopters. In this study, laggards represented 9% of the potential adopters.

Empirical Implications

This study aimed to examine the lived experiences of graduate occupational therapy (OT) students who delivered a magic trick-themed intervention to adolescents with disabilities in their fieldwork. Unfortunately, the researcher could only source a modest number of studies that examined the experiences of the therapist-client relationship or the therapist-therapist relationship (Crabtree & Lyons, 1997; Finley, 1999; Peloquin, 1990, 1993). A review of the literature found no studies investigating the therapists' experiences, attitudes, beliefs, and implementation of evidence-based, arts-integrated interventions like the magic therapy protocol. This study is noteworthy because it contributes to the body of knowledge associated with bridging the research-practice gap related to adopting and implementing evidence-based, arts-integrated practices.

In a systematic review of the literature addressing the practices of occupational therapists, Upton et al. (2014) found that, while OTs embraced positive attitudes regarding evidence-based practices, these attitudes did not translate into practice. In two studies examining the enabling factors that influence occupational therapists to adopt therapeutic technologies for older populations, McGrath and her colleagues (McGrath et al., 2017; McGrath & Corrado, 2019) found that OTs lacked the necessary training, education, and motivation to effectively implement these technology interventions. In another study focused on the factors influencing an OT's

adoption of virtual reality technology for brain injury rehabilitation, Glegg et al. (2013) found that time and knowledge were the most significant barrier to adoption.

The current study identified and reflected on the influential factors that guide an OTs decision to adopt a new, arts-based treatment modality – specifically the magic trick-themed intervention. The research could find no published studies that addressed the therapists’ experiences with this evidence-based approach. The missing component of the literature was an examination of the influential factors that relate to a practitioner’s decision to adopt or reject this novel magic trick-themed intervention for this child and adolescent population. The findings of this study are significant and advance the body of knowledge in this area. Clarifying and strengthening how research findings are disseminated will encourage more opportunities for special educators and SBOTs to consider novel, arts-integrated interventions (Hipp & Sulentic Dowell, 2019; Reck & Wald, 2018). This phenomenological study found that educational and training initiatives must include an aspect of trialability for OTs to improve skills and gain confidence in the successful implementation of new, evidence-based approaches.

Creativity is an integral part of any treatment strategy because of its effect on motivation, self-expression, and self-esteem – essential aspects of reshaping a client’s self-concept (Thompson & Blair, 1998). Occupational therapists employ creativity to promote improvement in motor skills, cognition, communication, socialization, and creativity (Ezell & Klein-Ezell, 2003; O’Rourke et al., 2018; Spencer et al., 2020; Spencer et al., 2021; Yuen et al., 2021). Royeen (2015) addressed the positive impact that an OT’s creativity may have on a client to encourage restoration of function. Royeen (2015) writes, “Creativity is not stifled to one scope; it is a broad term that incorporates every type of occupation an individual finds meaningful” (p. 3).

While not a focus of this study, an exciting aspect of this study is related to creativity. Participants were asked to describe how they may consider themselves to be a creative person.

The majority of the participants (90%) identified themselves as creative or innovative.

Preliminary findings show that the more creative the participants thought themselves to be, the more enthusiastic and successful they were in utilizing the intervention. One participant did not consider herself creative but recognized the benefits of the magic protocol for her client as well as its alignment with the goals of occupational therapy. However, she ultimately decided the magic trick-themed intervention would be a last-resort option for her in future practice. The connection between creativity, adoption of an innovative treatment technique, and its successful implementation by OTs is thought-provoking.

Phenomenology was selected because its primary purpose is to search for rich meaning in the first-person experiences, impressions, beliefs, and feelings of an individual's or group's involvement with a phenomenon (Creswell & Poth, 2018; Moerer-Urdahl & Creswell, 2004; Moustakas, 1994). One area in which participants categorized their engagement with the magic trick-themed intervention was through their cohort experiences, partner experiences, and personal experiences. Most of the participants (90%) perceived their shared experience with their cohort as an essential aspect of their fieldwork. Many of them asserted that being able to share their stories and experiences with their cohort brought affirmation on days that were difficult and days that were successful. They also emphasized the value of learning from one another's experiences and shared how they modified the magic tricks to meet the specific needs of their clients. Fifolt et al. (2018) confirmed the merit of these experiences and found that peer-to-peer cohort relationships were important and valuable for graduate students.

Most participants (90%) presented positive and supportive comments regarding the team aspect of their first exposure to implementing the magic trick-themed intervention with their client. Many said it was important for their first experience to be with a partner because, if they were experiencing any challenges, their teammate was able to offer alternative methods or

another perspective. Most mentioned that working with a partner increased their confidence to implement the technique in the future. Research conducted by Emmerich et al. (2019) supports the importance of authentic partners and their capacity to stimulate distinct social processes. After their fieldwork, all participants noted how much they valued their experience and indicated that they now know what to expect and feel better prepared to solve problems and develop adaptations independently. Most participants believed that they could have been successful on their own. Still, they appreciated the way a partner provided opportunities to take turns, back and forth, and bounce off each other's ideas.

While the participants interpreted the importance of their engagement with the magic protocol by reflecting on their experiences with their partner and their cohort, of most interest were their personal lived experiences with the intervention, as this was the focus of this study. All the participants agreed that, though a requirement of their coursework, the opportunity to implement the intervention in an authentic environment gave them a unique perspective. Every participant expressed positive comments about their personal experience with the magic trick-themed intervention and the value of utilizing it with a client to gain practical knowledge of the technique to determine its effectiveness. Most of the participants indicated that, without having had the opportunity to implement this approach in an authentic setting, they probably would not have recognized its value and versatility and, therefore, would not have considered it in the future.

Trialability (*learning by doing*) was the most significant factor in how the participants perceived their fieldwork experience and how it influenced their decision to incorporate this approach in their future practice. Their lived experiences with the magic trick-themed intervention moved them through a process of self-discovery (personal concerns and motivations), created opportunities for reflection that validated their experiences (personal

fulfillment), helped them recognize specific qualities about themselves (lessons learned), and, ultimately, produced a change in their thinking about the benefits, functionality, and effectiveness of the intervention.

Because no previous research investigating the therapist's experience with a new treatment technique was identified, contrasting or comparing the findings of this study was problematic. However, the lived experience of the participants in this study supported previous research that many practitioners rely on practice-based evidence they acquire from their experiences and consider it more reliable than research-based evidence (Cook & Cook, 2016; Cook & Farley, 2019; Eriksson et al., 2013; Simons et al., 2003). In addition, trialability constructs practice-based evidence and is highly influential in the decision to adopt or reject a new approach. Therefore, researchers' efforts to bridge the research-practice gap must consider the significance of trialability.

Limitations and Delimitations

The most significant limitation of this study was the virtual delivery of the magic trick-themed intervention. In previous years, the annual magic camp program was conducted as an in-person event. However, due to the restrictions of the COVID-19 pandemic, this session was offered only as a virtual opportunity. Participants identified this as the most challenging aspect related to the attribute of complexity. Many commented that it would have been a different experience if they had provided hand-over-hand assistance to their client when appropriate. Despite this limitation, all participants agreed that the intervention still met their client's goals and objectives.

There are two delimitations for the study. The first is the criterion for recruiting participants. The second is the selection of the hermeneutic phenomenological approach.

Participant Recruitment

Participants were purposively selected from approximately 70 graduate occupational therapy students enrolled in Fieldwork Experience 1 and Non-Thesis Research courses. A requirement of these courses is participation in the annual magic camp program as a magic instructor. Students enrolled in these courses were also exposed to the magic trick-themed intervention through a formal classroom presentation followed by an interactive workshop on the therapeutic benefits of magic tricks in a clinical setting. Therefore, no additional training was required to prepare them for the study.

Hermeneutic Phenomenology

A qualitative methodology was selected – specifically phenomenology – because its primary purpose is to search for rich meaning in the first-person experiences, impressions, beliefs, and feelings of an individual's or group's involvement with a phenomenon to produce in-depth descriptions. Transcendental phenomenology requires the researcher to bracket all personal experiences with the phenomenon under investigation. The researcher has extensive knowledge and intimate experiences with the magic trick-themed intervention. Consequently, complete bracketing was impossible, making a transcendental phenomenological approach unrealistic.

In contrast, hermeneutic phenomenology values the researcher's experiences with the phenomenon. The researcher maintained an insider's perspective of the magic trick-themed intervention in this study. This perspective was beneficial during the interview and data analysis process in understanding the meaning of the participants' experiences. Furthermore, unlike transcendental phenomenology, a hermeneutic approach enabled the researcher to integrate a theoretical framework to study the phenomenon. In this study, that framework was diffusion of innovations theory (Rogers, 2003).

Finally, hermeneutic phenomenology provided a systematic data analysis process. The hermeneutic circle allowed the researcher to examine, revise, and merge themes as they were

identified. This process was instrumental in creating a more detailed and nuanced interpretation of the graduate students' experiences with the intervention.

Recommendations for Future Practice

This study focused on graduate occupational therapy students and their lived experiences with the magic trick-themed intervention. Future research may seek to replicate the study and investigate the experiences of other practitioners who work with children with disabilities, including special educators, school-based speech therapists, and practicing occupational therapists. In addition, conducting the study in person rather than virtual should also be considered. Finally, future research may also consider how the practitioner's experience differs with various populations – for example, comparing the experience of a pediatric setting versus a geriatric setting.

Another future consideration may be employing a different theoretical framework to guide the study. For example, diffusion of innovations theory provided valuable insights into the participants' lived experiences with the intervention. In addition, however, social network theory could be employed to examine the way members of a system are connected within the system and the influence of opinion leaders in shifting attitudes and behaviors within the social network. This approach may contribute new understandings and perspectives that influence one's decision to adopt or reject an innovation.

Another area of future research may include the examination of magic as an art form rather than an entertainment genre. Magic is an often-misunderstood contemporary art form. It is interdisciplinary in its scope, incorporating elements of drama, stage presence, improvisation, movement, creative writing, and presentation. Many advocate that magic is a Brechtian form of theatre, in contrast to Aristotelian theatre, in which the performer 'breaks the fourth wall' and invites the audience to rationally engage with the performance rather than simply watch.

Finally, of interest to this researcher is the connection between one's perspective of their creativity and one's success with the magic trick-themed intervention or any arts-based technique. While not a focus of this study, participants were asked to describe in what ways they may consider themselves to be a creative person. Preliminary findings show that the more creative the participants thought themselves to be, the more enthusiastic they were in utilizing the intervention. Further research could provide a greater understanding and appreciation of the adoption process.

Conclusion

The purpose of this hermeneutic phenomenological study was to examine the lived experiences of graduate OT students who delivered a magic trick-themed intervention to adolescents with disabilities in their fieldwork. The aim was to ascertain the factors that may influence the adoption or rejection of the intervention in their future practice. The theoretical framework that guided this study was Rogers' diffusion of innovations theory. This research strived to explain how, why, and at what speed an innovation is adopted or rejected by a specialized community. This adoption or rejection process was examined through two systems – a five-stage decision-innovation sequence and an inventory of the five core attributes of a successful innovation. The findings of the study affirmed the importance of both systems.

The five-stage decision-innovation sequence consists of knowledge, persuasion, decision, implementation, and confirmation. Knowledge, persuasion, and decision were pre-determined for the participants because of the requirement to participate in the annual magic camp program at the SHP. The five core attributes of a successful innovation are relative advantage, complexity, compatibility, trialability, and observability. The fourth stage of the innovation-decision process, *implementation*, is directly associated with the fourth core attribute of a successful innovation, *trialability*. The fifth stage, *confirmation*, is also aligned with the fifth core attribute,

observability. The findings revealed that confirmation was often achieved through observable positive outcomes.

The most significant finding of this study was the value of trialability or *learning by doing* and the opportunity for practitioners to be fully engaged in the intervention before deciding to adopt or reject it. Trialability was a significant factor in how the participants perceived their fieldwork experience and how it influenced their decision to incorporate this approach in their future practice. Therefore, trialability (*learning by doing*) should be considered a powerful and highly influential factor in promoting the successful adoption of a new treatment technique or intervention. Based on the five-stage decision-innovation process and the five core attributes of a successful innovation posited by Rogers (2003), the participants' lived experiences with the magic trick-themed intervention were meaningful and influential toward their future practice.

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Appendix A

HFSC Sample Lesson

THE CHALLENGE KNOT

BEHAVIORAL OBJECTIVES

Students will:

- ❖ Recall the steps of the trick and follow simple directions.
- ❖ Sequence the steps to successfully perform the trick.
- ❖ Use coping strategies to appropriately accept and react to positive criticism.
- ❖ Adjust physical orientation (based on ability) in order to learn and perform the trick.
- ❖ Demonstrate and/or incorporate appropriate prepositions utilized in the trick.

VOCABULARY AND CONCEPT DEVELOPMENT:

- ❖ Introduction or reinforcement of Basic Concepts and Prepositions, i.e. up/down, top/bottom, left/right, over/under.
- ❖ Demonstrate the Principle of Causation (cause/effect), i.e. **why** something happens and **what** happens.

MATERIALS

Videos: Challenge Knot instructional Video

PDFs: Challenge Knot illustrated directions

Rope: Each student should have a 36" piece of rope

PROCEDURE (WIZARD'S CLUB): MOTIVATION

Act One/Scene One: The Challenge Knot

1. Start the class instruction by asking students this question: "Is it possible to tie a knot in a piece of rope without letting go of the ends?"
2. Distribute a piece of rope to each student.
3. Ask the students to "pinch" one end of the rope between the thumb and index finger of each hand.
4. With all students holding the rope in this position, have them attempt to tie a knot in the center of the rope without letting go of either end of the rope (this is impossible).
5. Once they have exhausted their attempts, you can demonstrate how to perform the trick OR you can have students watch **The Challenge Knot Instructional Video**.

Appendix A (Continued)

6. Distribute the written, **illustrated instructions to The Challenge Knot** to each student to be placed inside their Wizard's Book of Secrets.
7. Teach the students the moves necessary to perform the trick. Pay close attention to the placement of the arms when crossing them. One hand **MUST** be on top and one hand **MUST** be on the bottom (underneath) in order for this trick to work.
8. Once students have learned the trick sitting at their desk, have them perform it standing up.
9. Once each student has mastered the moves of this trick, challenge them to tie the knot as close to the center/middle of the rope as possible. This may require you to teach them **HOW** to find the center of the rope (a great way to introduce the concept of fractions). Encourage students to uncross their arms slowly, allowing the ropes to fall off their arms.
10. Encourage students not to rush through the steps, reminding them that it is not simply about *knowing* the secret but about *performing* the trick well.
11. Have students write down their ideas for performing The Challenge Knot in their *Book of Secrets*.

ADAPTATIONS/ACCOMMODATIONS

Blind/Visually impaired:

- ❖ Describe the visual images included in the videos and illustrations.
- ❖ Tie a knot or attach a pompom on each end of the rope to make it easier to feel the difference.

Deaf/Hearing impaired:

- ❖ Include written explanation (captioning) for any auditory information in videos.
- ❖ Use the illustrations/DVD to provide clarification.
- ❖ Tie small bells to the ends of the rope for auditory stimulation.

Physical disability:

- ❖ Position students for optimal viewing of videos with proper support for head control as needed.
- ❖ Provide students with adaptive equipment to anchor the rope in their hands.
- ❖ Provide an opportunity for all students to work in pairs, putting together students who have limited fine motor skills with students who possess them.
- ❖ Provide hand-over-hand assistance to those students who need it.

Appendix A (Continued)

Speech/Language disability:

- ❖ Encourage students to use any/all means of communication including verbalizations, symbolic representation (communication board/book), augmentative communication (e.g. dynavox, iPad), sign language.
- ❖ Provide students with the time to communicate ideas.

Intellectual disability:

- ❖ Provide hand-over-hand assistance to those students who need it.
- ❖ Check for understanding of concepts using guided questioning.
- ❖ Provide concrete examples when available to improve understanding.
- ❖ Reinforce students' understanding of basic concepts and prepositions (up/down, left/right, top/bottom, over/under).

Social/Emotional disability:

- ❖ If some students learn the trick more quickly than others, increase the complexity by placing marks on the rope in various locations and challenge students to tie the knot on each mark.
- ❖ Provide fidgety students with opportunities to move about (e.g. teacher's helper, sitting on a half inflated beach ball).
- ❖ Pair a student who has challenges with attention with a peer who remains on task.
- ❖ Use pre-correction strategies to review appropriate behavior when watching videos.
- ❖ Encourage withdrawn students to engage in discussions and pair with an enthusiastic peer.
- ❖ Have impulsive students sit near the teacher and around appropriate peer models.
- ❖ Provide positive verbal praise to students who are displaying appropriate behaviors.

EVALUATION

Act One/Scene Two: The Critics Corner

- ❖ Were students able to recall the steps of the trick?
- ❖ Were students able to perform the trick correctly?
- ❖ Were students able to accept direction and assistance in learning/performing the trick?
- ❖ Were students able to make adjustments in their physical orientation when learning and performing the trick?
- ❖ Were students able to demonstrate/identify prepositions utilized in performing the trick?

WIZARD'S ACADEMY CHART

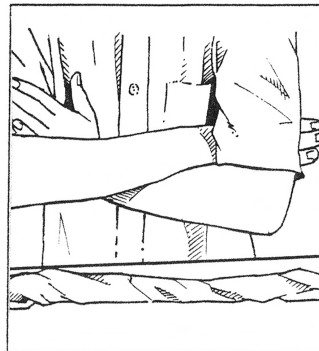
- ❖ After students have had several days to practice and master the trick, use the *Performance Scale: Hocus Focus Analytics* to rate each student's performance.
- ❖ Enter the ratings into the Hocus Focus Analytics web-based application for each student.
- ❖ Place a sticker or star on the Wizard's Academy Chart when students have successfully performed the trick.

Appendix A (Continued)**THE CHALLENGE KNOT****STEP 1:**

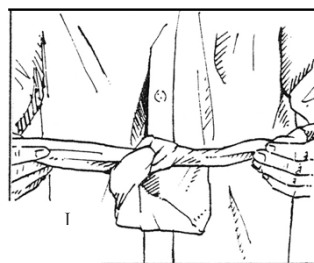
PLACE THE ROPE (OR SILK) ON A TABLE IN FRONT OF YOU.

STEP 2:

CROSS YOUR ARMS SO THAT ONE HAND IS OVER AND ONE HAND IS UNDER.

**STEP 3:**

LEAN OVER THE ROPE (OR SILK) AND PICK UP ONE END IN EACH HAND.

**STEP 4:**

UNFOLD YOUR ARMS WHILE HOLDING ON TO BOTH ENDS OF THE ROPE (OR SILK). THE KNOT WILL APPEAR ALL BY ITSELF.

Appendix B

Hocus Focus Supplemental Curriculum: Descriptions and Video Links

| | |
|--|---|
| Challenge Knot https://vimeo.com/151136606/cb33d3e777 | The magician ties a knot in the center of a rope but never lets go of the ends (easy version). |
| Floating Pencil https://vimeo.com/151136261/b13b41b049 | After showing an ordinary pencil to the audience, the magician causes it to float behind their hand. |
| Instant Knot https://vimeo.com/151135838/fd6863ab08 | A knot instantly and mysteriously appears at the end of a length of rope with a simple gesture from the magician. |
| Linking Paper Clips https://vimeo.com/151135292/e6a8f44fe4 | Two paper clips are placed on a folded dollar bill and caused to link in the air for no apparent reason. |
| Single Jumping Rubber Band https://vimeo.com/156424443/905d5d25c1 | A rubber band is placed on the magician's first and second fingers and instantly jumps to the third and fourth fingers. |
| Single Jumping Rubber Band with Barrier https://vimeo.com/156415451/6917f5585e | After demonstrating the jumping rubber band trick, the magician secures the rubber band on the first and second fingers by twisting a second rubber band across the top of all four fingers. With the snap of the fingers, the rubber band passes through the barrier and jumps to the other fingers. |
| Double Jumping Rubber Band https://vimeo.com/156415453/4af60298cc | A blue rubber band is placed on the first and second fingers and a red rubber band is placed on the third and fourth fingers. With the wave of a hand, the rubber bands instantly change places. |
| Double Jumping Rubber Band with Barrier https://vimeo.com/156415449/78c7b7d301 | After demonstrating the double jumping rubber band trick, the magician secures the red and blue rubber bands in place by twisting a third rubber band across the top of all four fingers. With the snap of the fingers, the red and blue rubber bands pass through the barrier and instantly change places. |
| I've Got Your Number https://vimeo.com/302371351/fc1b14465e | A prediction is made and through a series of mathematical equations, the magician correctly reveals the prediction. |
| Number Mystery https://vimeo.com/302371348/8515c7c111 | The magician correctly reveals the number an audience member is thinking. |
| Impossible Knot https://vimeo.com/151136660/6bdba84fa6 | The magician ties a knot in the center of a rope but never lets go of the ends (difficult version). |

Appendix C

Magic Camp Protocol

| SESSION | MONDAY | WEDNESDAY | MATERIALS NEEDED |
|---------|--|---|---|
| Week #1 | <i>Challenge Knot</i> One 40" piece of rope <i>Instant Knot</i> One 40" piece of rope | <i>Vanishing & Reappearing Coin</i> One Quarter Two Pennies or Dimes <i>Vanishing Crayon</i> Two regular crayons One large rubber band Pair of Scissors | <ul style="list-style-type: none"> • One 40" piece of rope • One Quarter • Two Pennies or Dimes • Two regular crayons • One large rubber band • Pair of Scissors |
| Week #2 | <i>Vanishing Coin through Elbow</i> One Quarter coin <i>Impossible Knot</i> One 40" piece of rope | <i>Salt Shaker Thru Table</i> Salt Shaker Several napkins or paper towels One Quarter coin <i>Floating Cup</i> A normal paper or Styrofoam cup | <ul style="list-style-type: none"> • One quarter coin • Two penny coins • Salt Shaker • Several napkins or paper towels • One Quarter coin • Paper or Styrofoam cup • One 40" piece of rope |
| Week #3 | <i>Jumping Rubber Band</i> Three average size rubber bands of different colors <i>Vanishing Rubber Band</i> Several average size rubber bands | <i>Linking Paper Clips</i> Two 2" paper clips One bank note <i>Floating Bank Note</i> One Quarter coin One bank note | <ul style="list-style-type: none"> • Several average size rubber bands of different colors • One long piece of string • Scissors • Two 2" paper clips • One bank note • One Quarter coin • One bank note |
| Week #4 | <i>String Thru Fingers (2 versions)</i> One long piece of string Scissors | <i>4 ACES</i> One deck of cards <i>Party Queens</i> One deck of cards | <ul style="list-style-type: none"> • One long piece of string • Scissors • Deck of Cards |

Appendix C (Continued)

Descriptions

1. Challenge Knot – I will challenge a volunteer to tie a knot in the middle of a length of rope without letting go of the ends...impossible. But when I take the rope in my hands, I can make a knot magically appear!

Video: <https://vimeo.com/151136606/cb33d3e777>

2. Instant Knot – Using a length of rope, I will instantly tie a knot in one end of the rope with a simple magic maneuver.

Video: <https://vimeo.com/151135838/fd6863ab08>

3. Vanishing & Reappearing Coin – the magician shows the audience a quarter and a penny. The penny is removed, placed in the pocket, and the hand with the quarter in it is closed. When the hand is reopened, the penny has returned.

Video: <https://vimeo.com/525040206/93d3322168>

4. Vanishing Crayon – I will show a crayon to the audience and, with the snap of my fingers or wave of my wand, the crayon will instantly vanish!

Video: <https://vimeo.com/523460946/8dbd2f54a2>

5. Vanishing Coin Through Elbow – I will borrow a coin for a volunteer and make it disappear by rubbing in on my elbow. But, all is not lost, because I will make it reappear from the opposite elbow!

Video: <https://vimeo.com/510225990/e6c7b6ccd3>

6. Impossible Knot – I will perform the impossible, defying the laws of physics, by tying a knot in the middle of a rope without letting go of either end of the rope!

Video: <https://vimeo.com/151136660/6bdba84fa6>

7. Coin Through the Table – I will place a coin on a solid surface and, using a salt shaker, cause the coin to go through the surface – solid through solid. But wait, instead of the coin, the salt shaker magically passes through the table surface!

Video: <https://vimeo.com/524915030/a5ac600a20>

8. Floating Cup – I will show the audience a normal plastic or Styrofoam cup and cause it to “float” without any effort.

Video: <https://vimeo.com/523516185/ea2757c2ce>

9/10. Jumping Rubber Bands (Two Different Tricks) – I place a rubber band over the index and middle fingers of my hand and cause it to instantly jump to the ring and little finger. Even after placing a barrier across the top of my fingers, trapping the rubber band in place, it still magically jumps to my other fingers.

Video #1: <https://vimeo.com/156415448/f54f182e4f>

Video #2: <https://vimeo.com/156415451/6917f5585e>

Appendix C (Continued)

11. Vanishing Rubber Bands – the magician stretches a rubber band between his/her hands, pinching the ends with his/her so it is clearly visible. When the fingers are opened, the rubber band vanishes.

Video: <https://vimeo.com/510267676/4c083a720c>

12. Linking Paper Clips – two papers clips are strategically placed on a folded dollar bill. A simple pull on the dollar and the clips jump into the air and link together.

Video: <https://vimeo.com/151136465/afff0ae6d4>

13. Floating Bank Note – I will show a normal bank note (of any denomination), fold it in half, and make it levitate between my fingers!

Video: <https://vimeo.com/526318940/f3114fd232>

14/15. String Through Fingers (Two Versions) – I will perform the most unusual trick...intricately tying my fingers together with a piece of string, my fingers will “escape” the bonds instantly and magically!

Video Version #1: <https://vimeo.com/501969113/b8abb8fc07>

Video Version #2: <https://vimeo.com/526176349/135207202c>

16. Four Aces – I will ask a volunteer to select a random number. I will count out that number of cards and place them in four piles on the table. When I turn over the top card of each pile, I will reveal that the Ace of each suit has magically appeared as the top card.

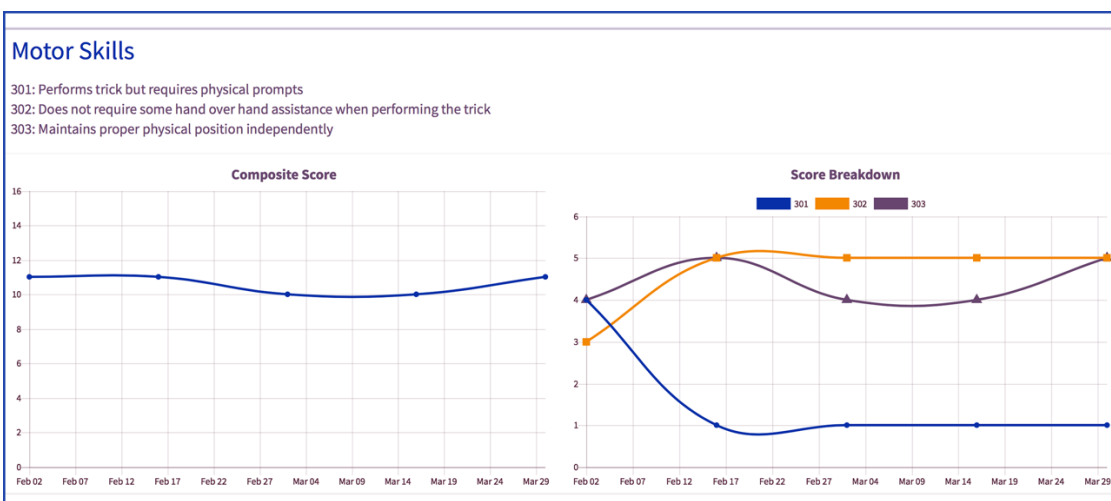
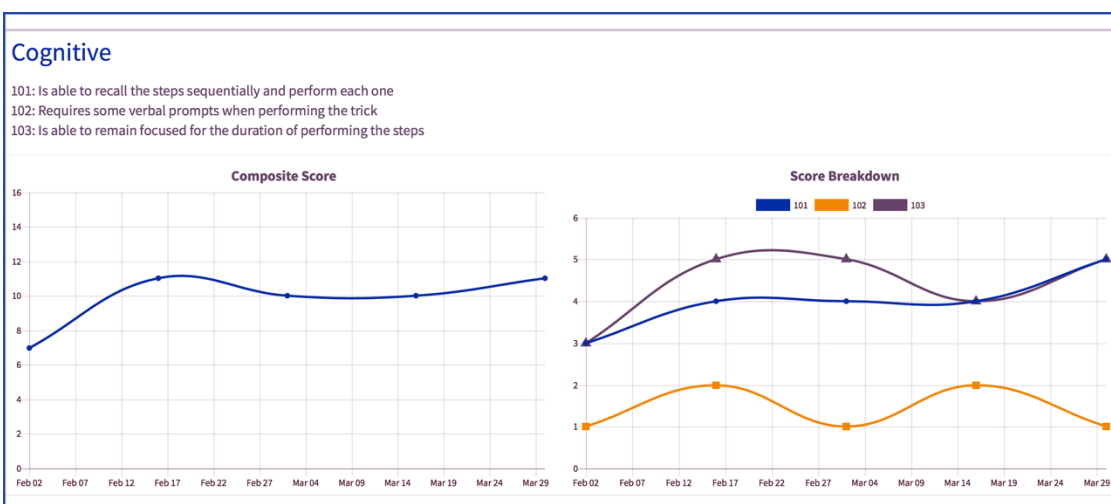
Video: <https://vimeo.com/526234819/3c09bac17d>

17. Party Queens – I will show the audience the four Queens from a deck of cards and place them on top of the stack. One by one, I will place each Queen in a random location in the middle of the deck...but, with the snap of my fingers, the Queens reappear on the top of the stack.

Video: <https://vimeo.com/525826269/32fa13fe6e>

Appendix D

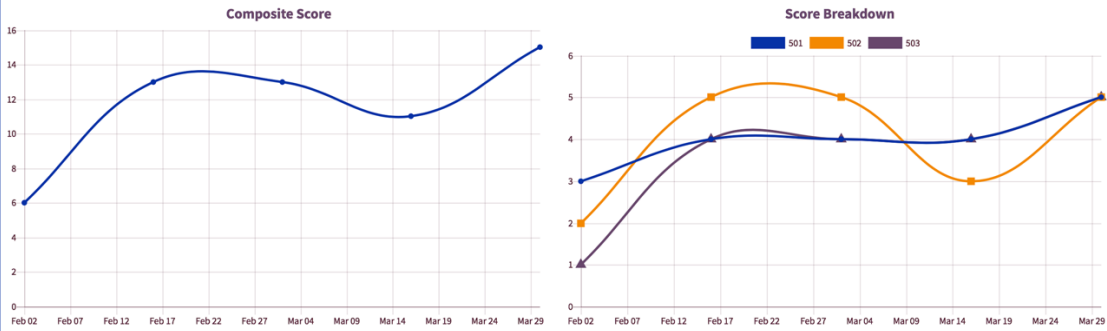
HFA Sample Chart of Outcomes



Appendix D (Continued)

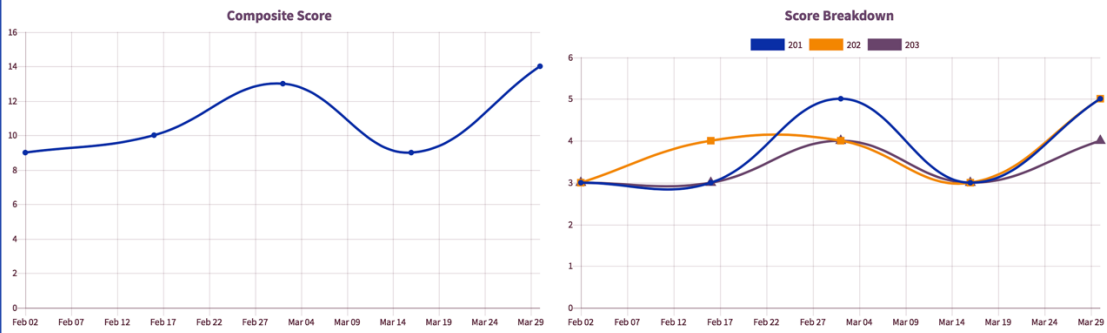
Social Skills

501: Captures the attention of the audience and sustains it throughout the trick
502: Initiates showing the trick to others
503: Identifies the audience perspective



Creativity/Adaptability

201: Is able to make adjustments while performing the trick
202: Is able to recognize alternate possibilities in the presentation
203: Includes unique elements (items) when performing the trick



Appendix E

Hocus Focus Magic Performance Evaluation Scale (HFMPES)

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Therapist: _____

Below are the 5 items used to rate the training fidelity of therapists to deliver magic and the rating scale used to rate each of the 5 items:

4=Exceed expectations; 3 = Meets but sometimes exceed expectations; 2 = Meets expectations; 1 = Sometimes meets expectations; 0=Never meets expectations.

| Items | Task | 0=Never meets expectations 1 = Sometimes meets expectations 2 = Meets expectations 3 = Meets but sometimes exceed expectations 4=Exceed expectations | Comments |
|-------|--|--|----------|
| 1 | The therapist recalls the steps sequentially without delay. <i>If the steps are not performed in the proper sequence, the trick will not work.</i> | | |
| 2 | The therapist performs each step correctly. <i>Not only is it important for each step to be performed in the proper sequence, it is equally important that each step is performed accurately.</i> | | |
| 3 | The therapist performs each step smoothly. <i>Each step must be performed in sequence and smoothly; however, each step must also be executed in such a way that no one step is more noticeable than the other - everything should appear "natural" or "normal."</i> | | |
| 4 | The therapist performs the magic trick without exposing the secret. <i>Each step must be done in the right order, well executed and naturally, and without either directly exposing the secret or bringing unnecessary attention to the secret.</i> | | |
| 5 | The therapist presents the trick with some flair and artistry. | | |

| | | | |
|--|--|--|--|
| | <i>Finally, the presentation of the trick must be done in a such a way that it is interesting and captures the attention of their client. More than simply a series of moves, it must be presented in a way that taps their curiosity.</i> | | |
|--|--|--|--|

| HOCUS FOCUS MAGIC PERFORMANCE EVALUATION SCALE | |
|--|--|
| Rating Description/Definition | |
| 0 | Never meets expectations |
| 1 | Sometimes meets expectations |
| | · Executes the moves sequentially but inconsistently |
| | · Executes the moves correctly but occasionally pauses or delays |
| 2 | Meets expectations |
| | · Executes the moves sequentially |
| | · Executes the moves correctly |
| | · Executes the moves confidently |
| | · Executes the moves skillfully (without pause or delay) |
| 3 | Meets but sometimes exceeds expectations |
| | · Executes the moves sequentially |
| | · Executes the moves correctly |
| | · Executes the moves confidently |
| | · Executes the moves skillfully (without pause or delay) |
| | · Occasionally incorporates a story or patter in the presentation |
| | · Occasionally incorporates appropriate gestures in performance |
| | · Occasionally engages audience with eye contact and social interaction |
| 4 | Exceeds expectations |
| | · Executes the moves sequentially |
| | · Executes the moves confidently |
| | · Executes the moves skillfully (without pause or delay) |
| | · Consistently incorporates a story or patter in the presentation when appropriate |
| | · Consistently incorporates appropriate gestures in performance |
| | · Consistently engages audience with eye contact and social interaction |

Spencer, K., Yuen, H., Darwin, M., Jenkins, G. and Kirklin, K. (2019). Development and validation of the Hocus Focus Magic Performance Scale for health professions personnel. *Journal of Educational Evaluation for Health Professions*, 16(8). <https://doi.org/10.3352/jeehp.2019.16.8>

Appendix F

IRB Approval

This study was approved under Liberty University IRB-FY21-22-162.

Appendix G

Site Permissions



Kevin Spencer, M.Ed.
PhD Candidate,
Educator | Artist | Consultant | Researcher
Liberty University

Dear Kevin,

Thank you for inviting us to be a part of your doctoral research.

For the past six years, you have worked with our graduate occupational therapy students, sharing the work you do and also supporting them with the delivery of an International Magic Camp each summer, that has allowed over 150 children to benefit from your Therapeutic Magic Protocols.

Our students have benefited from your knowledge and it would indeed be valuable if we could now explore how many of them have taken the skills and interventions that you taught them and are now applying them in their clinical practice, as licensed occupational therapists, in different settings across the country.

I am therefore pleased to be able to offer our assistance in providing access to our students and alumni for the purpose of seeking participation in your research studies leading to the award of your PhD.

Please do not hesitate to contact me if you need anything further for your IRB submission for this important study.

Sincerely,

Gavin Jenkins, PhD
Chair and Associate Professor

SCHOOL OF HEALTH PROFESSIONS
Department of Occupation Therapy

352 School of Health Professions Building | 1715 9th Avenue South
Mailing Address:
SHPB 352 | 1720 2ND AVE SOUTH | BIRMINGHAM AL 35294-1212
phone: 205.934.3568
www.usb.edu

Appendix H

Recruitment: Verbal Script

Hello [Potential Participant],

As a graduate student in the School of Education at Liberty University, I am conducting research to better understand the factors that influence the decision of occupational therapists to incorporate an arts-based technique in their practice.

The purpose of my research is to examine your experiences with a magic-themed program you have either delivered or will be delivering to adolescents with disabilities in your fieldwork as a member of this Fieldwork Experience or Non-thesis Research course.

If you and are interested in participating, I would like to invite you to join my study.

To participate, you must be (1) enrolled in the occupational therapy program at the University of Alabama at Birmingham, (2) enrolled in Fieldwork Experience 1 (OT631) or Non-thesis Research (OT 698) at the University of Alabama, (3) be present for the initial introduction and training in the magic-themed program, (4) present for the follow up training in the magic-themed program, and (5) engaged as a “magic coach” in the therapeutic magic camp.

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

1. Participate in an audio-recorded, pre-fieldwork interview (approximately 20 minutes) to gain an understanding of your thoughts and assumptions about occupational therapy; the value of research in selecting treatment techniques; and personal opinions about new, research-based practices and their connection to real-world practice in occupational therapy.
2. Participate in an audio-recorded, post-fieldwork interview (approximately 30 minutes) to gain an understanding of any changes in attitudes or assumptions about this technique from your pre-fieldwork thoughts; what changes in attitudes or assumptions you might have gained about your client’s abilities using this new approach; any changes in your attitude about your role in occupational therapy in the future; and any special challenges you might have managed (and how you managed them) during your fieldwork experience.
3. Keep and submit for our review a written journal of your personal weekly experiences with this magic-themed program. Written prompts will be given to you to assist in this.
4. You may be randomly selected to participate in a focus group to discuss themes that are identified in the analysis of the interview and journal data. The focus group will last approximately 60 to 75 minutes.

Your name and other identifying information will be requested as part of this study, but the information will remain confidential.

Would you like to participate? [Yes] Great, can we set up a time for an interview? [No] I

Appendix H (Continued)

understand. Thank you for your time. [Conclude the conversation.]

Here is a consent document for you to read. The consent document contains additional information about my research. If you choose to participate, you will need to sign the consent document and return it to me within 7 days of this presentation and before the pre-fieldwork interview.

Thank you for your time. Do you have any questions?

Appendix I

Research Participant Consent Form

Title of the Project: A phenomenological study to examine and interpret the experiences of graduate occupational therapy students who participated in the delivery of a research-based, magic-themed program for children with disabilities.

Principal Investigator: Kevin Spencer, PhD Candidate, Liberty University; Faculty, Carlow University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be (1) enrolled in the occupational therapy program at the University of Alabama at Birmingham, (2) enrolled in Fieldwork Experience 1 (OT631) or Non-thesis Research (OT 698) at the University of Alabama, (3) be present for the initial introduction and training in the magic-themed program, (4) present for the follow up training in the magic-themed program, and (5) engaged as a “magic coach” in the therapeutic magic camp.

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

What is the study about and why is it being done?

The purpose of this hermeneutic phenomenological study is to examine and interpret the experiences of graduate occupational therapy students who participated in the delivery of a research-based, magic-themed intervention for children with disabilities.

What will happen if you take part in this study?

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

5. Participate in an audio-recorded, pre-fieldwork interview (approximately 30 minutes) to gain an understanding of your thoughts and assumptions about occupational therapy; the value of research in selecting treatment techniques; and personal opinions about new, research-based practices and their connection to real-world practice in occupational therapy.
6. Participate in an audio-recorded, post-fieldwork interview (approximately 30 minutes) to gain an understanding of any changes in attitudes or assumptions about this technique from your pre-fieldwork thoughts; what changes in attitudes or assumptions you might have gained about your client’s abilities using this new approach; any changes in your attitude about your role in occupational therapy in the future; and any special challenges you might have managed (and how you managed them) during your fieldwork experience.
7. Keep a written journal of your personal weekly experiences with this magic-themed program.

Appendix I (Continued)

8. You may be randomly selected to participate in a focus group to discuss themes that are identified in the analysis of the interview and journal data.

How could you or others benefit from this study?

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

Benefits to society include practical significance for researchers, higher education professors and instructors, professional development providers for educators, continuing education trainers for occupational therapy practitioners, special educators, and school-based occupational therapists. For researchers, this study may reveal more effective ways to disseminate research findings to make them more accessible and respectful for practitioners. For providers of continuing education and professional development, this study may reveal better methods of delivering research findings that encourage collaboration between special educators and related services providers. It may also initiate more creative approaches for interactive learning experiences for practitioners. This may motivate them to explore the advantages of newly discovered evidence-based practices, demonstrate the ease with which they can be implemented, and extrapolate potential positive outcomes for their students.

What risks might you experience from being in this study?

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

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records. Data collected from you may be shared for use in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed before the data is shared.

- Participant responses will be kept confidential through the use of pseudonyms. Interviews will be conducted in a location where others will not easily overhear the conversation.
- Data will be stored on a password-locked computer. After three years, all electronic records will be deleted.
- All personal interviews, diary/journal entries, and focus group discussions will be recorded and stored on a password-protected computer. All interviews will be transcribed, and written documents will be stored on a password-protected computer. Access will be limited to the researcher. All interview recordings and written documents will be retained for three years upon completion of the study.

Appendix I (Continued)

- The researcher cannot guarantee that all information shared during focus groups will be held in confidence. All members of the focus group will be discouraged in sharing what was discussed with persons outside of the group, but compliance cannot be guaranteed.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study as this will take place with the authorization of your fieldwork coordinator.

What are the costs to you to be part of the study?

No personal additional expenses are anticipated as a part of this study.

Is study participation voluntary?

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

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please inform the researcher that you wish to discontinue your participation by contacting him at the email address and/or phone number included in the next paragraph. Should you choose to withdraw, data personal collected from you will be destroyed immediately and will not be included in this study. Focus group data will not be destroyed, but your contributions to the focus group will not be included in the study if you choose to withdraw.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Kevin Spencer. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him by phone or by email. You may also contact the researcher's faculty sponsor, Dr. Nathan Street.

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Appendix I (Continued)

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

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

☐ The researcher has my permission to audio record me as part of my participation in this study.

Printed Subject Name

Signature & Date

Appendix J

A Simple Method to Assess and Report Thematic Saturation in Qualitative Research

Guest et al. (2020) illustrate the seven-step process using a hypothetical dataset in their research article, *A Simple Method to Assess and Report Thematic Saturation in Qualitative Research*.

Step 1, find the number of unique themes for base size by summing the unique themes identified in the first four interviews. Using the hypothetical dataset, 37 unique themes were identified in the first four interviews.

Step 1: Thematic Saturation in Qualitative Research (Guest et al., 2020),

| Interview number | 1 | 2 | 3 | 4 |
|--------------------------|----|---|---|----|
| New themes per interview | 17 | 8 | 5 | 7 |
| # Base themes | | | | 37 |

<https://doi.org/10.1371/journal.pone.0232076.t002>

Step 2, find the number of unique themes for the first run. In this example, a run length of two would include data for the subsequent two interviews after base set (interviews five and six). Four new themes were identified in interview five and three in interview six, making the number of new themes seven in this first run.

Step 2: Thematic Saturation in Qualitative Research (Guest et al., 2020).

| Interview number | 5 | 6 |
|--------------------------|---|---|
| New themes per interview | 4 | 3 |
| New themes in run | | 7 |

<https://doi.org/10.1371/journal.pone.0232076.t003>

Step 3, calculate the saturation ratio by dividing the number of new themes (seven) by the number of unique themes in the base set (thirty seven), yielding a quotient of 19% new information. This is not below the $\leq 5\%$ threshold; analysis continues.

Appendix J (Continued)

Step 3: Thematic Saturation in Qualitative Research (Guest et al., 2020).

| | | | | |
|------------------|---|----|---|-----|
| # New themes/run | = | 7 | = | 19% |
| # Base themes | | 37 | | |

<https://doi.org/10.1371/journal.pone.0232076.t004>

Step 4, find the number of new unique themes for the next run (interviews six and seven), generating a sum of four new themes.

Step 4: Thematic Saturation in Qualitative Research (Guest et al., 2020).

| Interview number | 6 | 7 |
|--------------------------|---|---|
| New themes per interview | 3 | 1 |
| New themes in run | | 4 |

<https://doi.org/10.1371/journal.pone.0232076.t005>

Step 5, update the saturation ratio by dividing the number of new themes in the last run (four) by the number of themes in the base set (thirty seven), yielding a quotient of 11%. This is not below the $\leq 5\%$ threshold; therefore, analysis continues.

Step 5: Thematic Saturation in Qualitative Research (Guest et al., 2020).

| | | | | |
|------------------|---|----|---|-----|
| # New themes/run | = | 4 | = | 11% |
| # Base themes | | 37 | | |

<https://doi.org/10.1371/journal.pone.0232076.t006>

Step 6, find the number of new unique themes for the next run (interviews eight and nine), generating a sum of one new theme.

Step 6: Thematic Saturation in Qualitative Research (Guest et al., 2020).

| Interview number | 7 | 8 |
|--------------------------|---|---|
| New themes per interview | 1 | 0 |
| New themes in run | | 1 |

<https://doi.org/10.1371/journal.pone.0232076.t007>

Step 7, update the saturation ratio by dividing the number of themes in the last run (one) by the number of themes in the base set (thirty seven), yielding a quotient of 3%. This is below the $\leq 5\%$ threshold of new information indicating a point of saturation. Therefore, analysis stops after the eighth interview.

Step 7: Thematic Saturation in Qualitative Research (Guest et al., 2020).

| | | | | |
|------------------|---|----|---|----|
| # New themes/run | = | 1 | = | 3% |
| # Base themes | | 37 | | |

<https://doi.org/10.1371/journal.pone.0232076.t008>

The saturation assessment in this example would be reported by writing: using a base size of four, a $\leq 5\%$ new information threshold was reached at 6⁺² interviews.

Appendix K

Interview Questions

Post-program interviews with participants:

Relative Advantage

1. Based on your experience so far, what is the probability that you would use this approach again in your future practice?
2. Based on your experience so far, describe any advantages you think this approach might have over other interventions.

Compatibility

1. Now that you have been studying OT for a while, you have developed a sense of your values as a future occupational therapist. How does this method align (or not) with those values?
2. What are your thoughts about using this approach as a school-based program?

Complexity

1. How easy was it to use this technique?
2. If you used this in a virtual environment, how would it have been easier in a live session?
3. What challenges did you have? And how did you manage them?

Trialability

1. How important was it for you to try this approach first to decide if you will use it in your future practice?
2. How important was it for you to have a partner working with you on your first experience utilizing this approach?
3. Did having a partner help build your confidence to use this program on your own?
4. Based on your camp experience, in what ways might you consider using this method in the future beyond pediatrics?

Observability

1. Describe any positive outcomes you experienced with your client.
2. What did you learn about yourself through this experience that will make you a better OT in the future?

Appendix L

Follow-Up Interview Prompts

1. Describe your *initial impressions* of magic as an intervention when you first heard about it in your coursework.
2. Describe your initial *concerns or apprehensions* when you heard that you were going to be using the magic-themed intervention with a client.
3. Describe your *feelings and your perception of the role* you played when you heard that your client was successfully performing tricks for other people.
4. Describe your *feelings and your perception of the role* you played when you saw your client get frustrated with learning the magic.
5. Describe if there were occasions when you *felt uneasy or inadequate* about your ability to teach magic or connect with your client.
6. Describe one *big idea that you discovered* through your experience using the magic-themed intervention.
7. Describe any events that *surprised you or were unexpected* resulting from your experience using the magic-themed intervention.
8. Describe any *positive experiences* you had with the magic-themed intervention and how they made you feel about your engagement with the protocol.
9. Describe any *characteristics about yourself* and any *concepts about the magic-themed intervention*, or you may have learned about yourself while using magic-themed intervention with your client.
10. Describe your *final impressions* of your experience using this magic-themed intervention.

Appendix M

Journal Prompts

As a part of the study, participants will be asked to keep a weekly journal of their experiences with the magic-themed program. Four journal prompts will be provided to help guide their thoughts and assist in writing their entries. These prompts will be:

1. Today, I found myself thinking about how magic can...
2. One of the things that I've noticed about using this technique is....
3. I never thought my client could do this until...
4. In this experience, I'm struggling to figure out how to....