

**A Case Study examining the Influence of the Road Drawing Directive
on CASAS Reading GOALS Scores**

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Abstract

Research on literacy describes reading and learning as a multidimensional process. It is also understood that reading difficulties do not disappear with age. In fact, students with learning difficulties can struggle with ongoing anxiety and feelings of low self-worth. This pretest/posttest pilot study identified how the Road Drawing directive can effect participant scores of the CASAS (Comprehensive Adult Student Assessment System) Reading GOALS (Greater Opportunities for Adult Learning Success) assessment. Young adulthood is a critical time for examining career motivation and an individual's plan. With nearly half of young adults in America reading below an 8th-grade level, finding alternative methods for boosting literacy levels for this population is long overdue. Research points towards incorporating aspects of the creative arts to improve literacy levels. The CASAS Reading GOALS assessment as a pretest and posttest measure was taken by the adult (over 18 years of age) study participant and resulted in a 9-point score improvement on the CASAS/GOALS assessment following the art therapy directive. This outcome indicated that an art intervention could potentially improve literacy and be considered an additional resource for adult literacy programs, however, the use of an art making activity between tests to improve literacy requires further study.

Keywords: Adults, literacy, reading difficulties, comprehension, art therapy

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CHAPTER 1

INTRODUCTION

Problem Statement

If educational programs in the United States do not teach literacy in terms of complex mental processes and instead focus on tactics over the complete understanding of reading material (Street, 2013, p. 53), literacy skills among adults may continue to decline. According to Mellard et al. (2015) “approximately 43% of American adults, age 18 and older, lack the necessary literacy skills for most jobs” (p. 310). The Comprehensive Adult Student Assessment System (CASAS) further explained that the National Assessment of Adult Literacy (NAAL) estimated that 30 million adults in the United States have only the most minimal ability to read and write in English (Product Overviews, 2021). CASAS tests are approved by the United States Department of Education and the United States Department of Labor. They are a valued and reliable method for assessing reading, math, listening, speaking, and writing skills and are utilized in this study (CASAS Assessment Research, n.d.).

Research Questions

RQ1: Do the pre- and post- CASAS Reading GOALS (Greater Opportunities for Adult Learning Success) test scores change based on the completion of the Road Drawing Art Therapy directive?

H02: There is no difference between the post-CASAS Reading GOALS and pre-CASAS Reading GOALS scores following the completion of the Road Drawing Art Therapy directive.

H12: There is a difference between the CASAS Reading GOALS pretest literacy scores and the CASAS Reading GOALS posttest scores following the completion of the Road Drawing

Art Therapy directive with the CASAS Reading GOALS posttest being higher than the pretest scores.

Basic Assumptions

Research confirms that art making has a positive impact on learning. For adult learners this could potentially mean that creative actions could also improve learning skills for adults, especially reading comprehension and literacy.

Statement of Purpose

Many studies confirm the collaborative aspects of how the mind and its mechanisms interconnect to influence literacy and comprehension. It is also not entirely clear which brain activity makes the greatest contribution to learning but it is understood that cognition, comprehension, and memory all play key roles in the acquisition of literacy skills. This study is important because it investigates ways in which art therapy may support literacy and reading comprehension for adult learners.

Definition of Terms

Art Therapy

A counseling approach that uses visual art techniques such as drawing and painting to improve cognitive and sensorimotor functions, foster self-esteem, and self-awareness. It can also cultivate emotional resilience, promote insight, enhance social skills, reduce, and resolve conflicts and distress through art making and other creative activities. (American Art Therapy Association (AATA), n.d.)

Literacy

This aspect of education is defined by an individual's ability to read with proficiency and understanding. Through the identification and interpretation of written materials, a reader can use their literacy skills to communicate the meaning of written materials as they correlate and apply to different situations with varying contexts (Montoya, 2018).

Cognition

The mental action or process of acquiring knowledge and understanding through thought, experience, and the senses (Lexico, 2021).

Comprehension

The action or capability of understanding something (Lexico, 2021).

Road Drawing

A drawing exercise utilized in art therapy and developed by Michael J. Hanes in 1985. The method offers a visual and narrative format that offers individuals a different approach for understanding their behavior and choices that can also help them visualize future possibilities (Hanes, 2020, p. 3). The road drawing exercise is useful with populations ranging from nursing homes, medical facilities, and schools (Hanes, 2020, p. 26).

Justification of the Study

Supplying new research on how art making can affect learning is a key justification for this study. Through specifically addressing adult literacy problems, this study explores how using the Road Drawing as an art therapy intervention employed by an art therapist can impact learning and comprehension for adults.

CHAPTER 2

REVIEW OF THE LITERATURE

Literacy Today

Many scientific research studies focused on education have examined the connection between cognition, comprehension, learning and creativity. The literature reviewed here establishes the role of visual art in improving cognitive performance in education settings. If adding a creative action to reading can enhance comprehension, as summarized below, it is an important topic for further exploration, especially in terms of improving reading comprehension for adults.

Despite decades of research on literacy and cognition, and how these mechanisms are used in reading, it is still not entirely clear how each component contributes to overall comprehension, memory and problem-solving. Forty-three percent of American adults continue to lack the necessary literacy skills for adequate income despite proof that greater fluency in reading would greatly contribute to skill development (Mellard & Woods, 2016). It is widely understood that cognition, the process of acquiring knowledge, and comprehension, the act of understanding something, work collectively to improve literacy. Further research on the action of notetaking showed that increased attention to reading materials could positively impact grades, achievement and had a positive impact on grade point averages and comprehension levels.

Literacy and the Brain

Literacy as a component of cognition is defined as the ability to use listening, speaking, reading, writing, and viewing to gain information within a specific discipline (Ming, 2012). Reading itself is a recent cultural acquisition in the span of human development. Brain research studies have explored important connections between the visual and verbal areas of the

human brain and how they collaborate to influence mental functioning (Dehaene, 2011). Most research points to the cognitive domain as making the largest contribution to reading comprehension (Li et al., 2020).

According to Martin et al. (2020), the full cognitive constructs that underlie literacy and reading are not fully understood. Many studies have connected enhanced cognition, greater comprehension, and stronger literacy skills with active engagement in creative work. These studies build on one another and further contribute to ongoing research on how individuals use information to increase learning and comprehension.

Literacy and the Creative Arts

Like notetaking, drama, dance, and oral retelling activities also use creative processes to better concentrate the mind on what is being seen, read, or heard (Greenfader & Brouillette, 2013). The idea of adding a creative action to learning is not new and more evidence has confirmed its effectiveness with children, refugees, and other populations (Lee, 2016). The impact of listening to music on cognition and comprehension is also a recurring theme among research studies on literacy and intellectual performance. Research with children has confirmed that engagement in creative movement fuels imagination and stimulates comprehension through performances that are related to the events, characters, and stories in question. In addition, drama, theater, and dance activities have also appeared to boost oral language skills while providing the visual, auditory, and kinesthetic input that signals the arrival of new information (Greenfader & Brouillette, 2013).

O'Neil (2011) explained that visual art methods, including interactions between pictures and text, have contributed to the understanding of literacy and broadened its definition to include knowledge of images, gestures, and music. As a result, more and more reading comprehension

strategies have shown to work well with the addition of pictures. Visual literacy as a comprehensive strategy, such as picture book illustrations and text, can support comprehension and strengthen understanding (O'Neil, 2011).

A subsequent study from Soundy, C. S. & Drucker, M. F. (2010) investigated the meaning-making process of children by examining social and cultural influences on their drawings after reading picture books and interacting with peers. The process allowed participants to explore meaning more deeply by combining peer interaction with drawing. In addition, Collaborative Strategic Reading (CSR), a technique that uses small groups, a range of reading activities and oral retelling, supports and teaches literacy to refugee students. These findings and other data gathered indicate that artmaking can be a powerful tool for connecting children and teachers, and points to the positive impact of visual arts on learning (Lee, 2016).

Although often overlooked or eliminated from the classroom, art has great potential for engaging students. Zindler (2018) explained that combining art with teaching can improve literacy, build world knowledge, and boost critical thinking, speaking, and listening skills. Adult learners can also benefit from differentiated instruction that incorporates art.

Literacy Challenges for Adult Learners

Years of learning challenges in connection to reading and literacy can evoke feelings of shame and inadequacy. Additionally, difficulties in reading do not disappear with age and some reading disabilities, such as dyslexia are lifelong issues with limited treatments. For these reasons, it is of critical importance for researchers to determine how to best assist these populations (Saletta, 2018).

Using visual stimulus combined with computer-driven instruction, O'Sullivan et al. (2017) taught reading skills to adult offenders with intellectual disabilities. The study replaced a traditional classroom format with self-directed computer-based instruction based on the Headsprout Early Reading (HER) program, a computer-based reading method designed for children. Being able to read letters from family members, magazines and books was especially empowering for individuals with learning disorders. Sitting in a classroom with peers or having one-to-one tutoring can be daunting and embarrassing for many adults, especially if they had aversive classroom experiences. HER offered an effective alternative for literacy instruction that combined computer-assisted reading instruction with visual cues for adult offenders with intellectual disabilities (O'Sullivan et al., 2017, p. 123).

According to Miller et al. (2017) adults challenged by literacy often do not pursue reading as pleasurable activity and most struggling adult readers suffer adverse school experiences and may not perceive reading as positive or rewarding (p. 22). Studying adults offered insight into what occurs after growth periods had stabilized and skill development had leveled. Older students may also struggle with more than poor reading skills. They can become frustrated with lengthy programs and continued failures while trying to avoid embarrassment around peers. All these factors add to students' feeling demoralized and hopeless (Saletta, 2018).

Although research is growing on literacy and the creative arts, concepts related to reading with fluency and retention remain narrowly defined and current high school reading programs do not reflect the complexity of the reading process. These findings along with a growing movement towards growing learning practices that involve art could lead to the development of more meaningful literacy strategies for educators working with young adults.

Promising Solutions for Adult Literacy and Comprehension

Comprehensive Adult Student Assessment System

Since 1980, the CASAS (Comprehensive Adult Student Assessment System) organization has worked to develop assessments intended to improve basic education skills for adults in communities and the workplace (About CASAS, 2020). They have developed numerous math and reading tests for adults that function at or below high school levels. The CASAS Reading GOALS assessment used in this study was developed by CASAS as a test for measuring reading comprehension in adults and is a 75-minute web-based test. It is divided into three sections that use text passages and multiple-choice questions to ascertain vocabulary, reading comprehension skills and higher order reading skills. The first section is vocabulary, and it prompts the test taker to interpret words and phrases as they are used in text. The second portion focuses on reading comprehension and prompts the taker to determine explicitly what the text says and to make a logical inference from it. The last section covers higher order reading skills. It emphasizes text structure, including how specific sentences, paragraphs, and larger portions of the text relate to each other and the whole (CASAS, 2021).

Road Drawings

Road drawings are an art therapy method that can help people reflect on the metaphoric “roads” in their life, or along a journey. Hanes (1995) explained that roads are familiar to all of us, even for people anxious about artmaking. The technique is used by art therapists working in psychiatric hospitals, residential substance use treatment facilities, and correction settings. It has also proven beneficial in nursing homes, medical facilities, and schools.

Hanes (2020) stated that the narrative quality of the road drawing technique provides a format for integrating memories with goals and envisioning alternate outcomes. The story-like

nature of the road allows individuals to understand who they have become and their intentions for the future (p. 2). Like a life map, the road drawing could be used to offer clues about how education programs have impacted personal choices and decisions.

The Road Drawing and the CASAS Reading GOALS assessment are used in different settings and for different reasons, however, both methods demonstrate value for adults seeking improvement in the areas of education and self-understanding. If connecting an art activity with teaching literacy can improve comprehension, then administering the CASAS Reading Goals Assessment in conjunction with the Road Drawing technique may offer new evidence for how adults can use art to gain greater reading comprehension skills.

CHAPTER 3

METHODOLOGY

Participant

For this case study, one adult (over 18 years of age) with English as their primary language was recruited to participate. The adult had normal hearing, normal vision, and normal sight corrected with glasses. The participant was free from any serious physical, mental disorders or learning disabilities and was referred to the research study coordinator through the READ/San Diego Literacy Program, a division of the San Diego public library.

Research Design

The participant completed a Survey Monkey pre-screening questionnaire to determine age, occupation and education level and then completed the CASAS Reading GOALS pre-test locator. Next, the participant completed a first attempt of the CASAS Reading GOALS assessment. Then the participant completed the Road Drawing art therapy directive as led by the primary researcher, an art therapy graduate student. Lastly, the participant proceeded to take the CASAS Reading GOALS assessment a second time. Test scores from prior to the art directive and after were then compared.

Research Instruments

Pre-screening Survey

The participant completed an online Survey Monkey questionnaire to determine eligibility for the study. This pre-screening questionnaire determined that the participant was an English-speaking adult with a high school diploma.

CASAS Reading GOALS test

CASAS Reading GOALS is a 75-minute web-based test used with youths and adults to measure reading and comprehension skills. It was used as the pre-and post-measure for this study. The test is organized in three parts that evaluates vocabulary, reading comprehension and higher order reading skills. Participants read a passage of text before answering a series of multiple-choice questions based on the text passage (CASAS, 2021).

Federal and state government agencies, business and industry, colleges, education and training providers, correctional facilities, and technical programs use CASAS tests which have been found valid and reliable for native and non-native speakers of English. CASAS also assess reading, math, listening, speaking, and writing from the lowest literacy skills to high school exit and transition to postsecondary education and training (About CASAS, 2020).

To ensure assessment accuracy and consistency, the California Department of Education (CDE) prescribes that Adult Education and Family Literacy Act (AEFLA) funded adult literacy providers use CASAS assessments with proven validity and reliability that correlate to the National Reporting System (NRS) for adult education. The test administrator received the CASAS proctor certification prior to administration of the CASAS Reading GOALS assessments and followed all required testing and security protocols as outlined in the CASAS Test administration manual.

Road Drawing

Intended as a therapeutic metaphor in art therapy, Hanes (1995) examined how Road Drawings could be used to develop spontaneous imagery that represented a clients' life history and their potential for change while drawing attention to areas of conflict or importance over the course of their life. The participant is asked to “Visualize and then to begin to draw the road that comes to their mind.”

Validity and Reliability

Each CASAS assessment instrument has undergone rigorous statistical procedures to ensure reliable and valid results. In addition to traditional methods to determine reliability and validity, CASAS also employ item response theory (IRT) in the construction of both its item bank and associated tests (About CASAS, 2020).

All CASAS assessment instruments undergo rigorous test development and validation procedures and meet the standards of the American Education Research Association (AERA), the National Council for Measurement in Education (NCME), and the American Psychological Association (APA; California Department of Education, 2015, p. 1).

The Road Drawing technique has shown to be effective in numerous settings from psychiatric hospitals and residential substance use facilities to nursing homes and schools. Although an established art therapy technique, there is no concrete evidence of its validity and reliability for literacy. It is being explored through this study for its potential to support adult learners with comprehension.

Data Collection

Participant was recruited from the San Diego area through posting electronic and printed flyers on community bulletin boards at local libraries, cafes, grocery stores and online sites that offer free local information to residents. An online Survey Monkey form was used to screen the participant. Participant survey information, informed consent form, and data was stored and will be kept a minimum of three years after study completion in a locked and secured filing cabinet.

The participant then met with the researcher for a total of 90 minutes on July 15, 2021. At that time, the researcher, a CASAS certified test proctor, administered the CASAS Reading GOALS assessment and a preliminary score was automatically recorded by the web-based

CASAS testing software. During a second 90-minute meeting on July 22, 2021, the participant completed the Road Drawing art intervention. After finishing the Road Drawing, the CASAS Reading GOALS assessment was administered a second time on August 2, 2021. The 17-day time frame between the first and last CASAS Reading GOALS allowed for an adequate time frame between the first and second test. CASAS instructions mandate a 100-hour time period between pre- and post-tests. CASAS also states that the participant should not take the same test twice. For this reason, the study participant completed an alternate version of the same test for the second attempt. The CASAS software program provided results for both tests to the researcher for evaluation.

During the 90-minute time allotted for the art intervention, the researcher asked the participant to “first visualize and then to begin to draw the road that comes to their mind ” After the first prompt stated above, the researcher offered the participant the following guidelines: “Think about all the different types of roads. Fast roads, slow roads, curved and straight roads and the surface of those roads. What are the roads made of and what conditions are the roads in? Does the road have lanes, intersections, signs and any other scenery?” As the participant drew, the researcher assured the participant that these were only suggestions and that there was no right or wrong way to draw the road.

Data Analysis

The participant completed a pre-test, followed by the road drawing and then completed a post-test. The participant proceeded to complete their road drawing before taking the post-test CASAS Reading GOALS assessment. The pre- and post- test scores were compared to each other in addition to the researcher having a conversation with the participant about the drawing. Through the application of the researcher’s art therapy knowledge and the recommendations

from Hanes (2020) on road drawing analysis, the researcher employed an interpretive approach to analyzing the data and recording evidence of any significant themes within the participants road drawing. Based on a conversation with the participant, the researcher also recognized that the road drawing held personal significance for the participant. The researcher then proceeded to further analyze the data in relationship to statements gathered from the participant and scores obtained from both literacy tests.

Ethical Considerations for the Research

The road drawing directive and CASAS Reading GOALS research study results were used in conjunction with the goals of the study. Informed consent to use artwork and test scores only for purposes of research pertaining to this study were obtained from the participant. Participant assessment records and artwork were used as described for the purpose of this study. Confidentiality of artwork will be maintained in both data storage and when presented in reports, presentations, and publications.

All documentation, participant records, and artwork will be retained for a period of three-years consistent with institutional regulations related to sound research practice. In addition, written permission to use photographs or copies of the artwork for educational presentations and publications associated with results from the Road Drawing directive and CASAS Reading GOALS were obtained from the participant.

Researcher Bias

The researcher's interest in this topic began when her own children became students at the same elementary school she attended. The researcher noticed that present classrooms and curriculums offered fewer art-based activities as compared to when the researcher attended the school. When the child of the researcher faced literacy challenges and other parents

shared similar difficulties, the researcher became curious about a link between artmaking and literacy. Growing curiosity led to the development of this research study and its design for improving low literacy levels among adults in America today. The above scenario may contribute to researcher bias in terms of anticipating a certain outcome that supports observations linking artmaking with literacy. Objective data collection and analysis will be employed to counteract this bias and separate results from the personal interest of the researcher in the subject area.

CHAPTER 4

RESULTS

The primary aim of this case study was to evaluate the feasibility of using the Road Drawing directive in conjunction with the CASAS Reading GOALS assessment to elevate literacy scores among adults. A secondary aim was to investigate how completing the road drawing in conjunction with the CASAS Reading GOALS could improve the self-perceptions of participants in relation to enhancing their literacy levels. Results from this pilot study intended to demonstrate the usefulness of combining the road drawing with the CASAS Reading GOALS assessment to improve adult literacy. Results illustrated that pre- and post-CASAS Reading GOALS test scores positively changed following the completion of the Road Drawing Art Therapy directive. The posttest result was higher than the pretest score (Table 1).

Table 1. Times and scores of measures and results

DATE	CASAS Reading GOALS Score Results	Road Drawing Art Intervention	CASAS Reading GOALS Score Difference
July 15, 2021	224		
July 22, 2021		X	
August 2, 2021	233		9 points

The score increase indicated a difference between post and pre-CASAS Reading GOALS scores following the completion of the Road Drawing Art Therapy directive.

Understanding the Road Drawing

The participant drew the road and view to the street from her home on paper aligned horizontally. The two-lane road also moved horizontally in a narrative fashion from west to east, with lanes divided by a broken line (see Figure 1). Hanes (2020) stated that roads drawn from west to east may be associated with a story that can be read from left to right (p. 12). The participant's road ended with a stop sign, which may indicate a wish to discontinue, prevent or halt something (p.20). It is possible for signs to have several different meanings and the participant explained that she drew the street and the sign as it appeared outside of her window. At first the participant paused upon completing only the road segment and cited artistic insecurities. She stated that "she didn't know how to draw cars and buses" and added that "the road was the busy street outside the window of my home". After pausing for a minute and setting down the marker, the participant began describing other characteristics of the road and began drawing again. The researcher asked the participant if the participant could add those details. The participant further engaged in the task and used more marker colors to add greater detail to the drawing. The participant remarked that "the lines and dashes drawn across the sky were either sunlight or rain depending on the weather that day". The participant explained that "the road was busy but that it was okay because there was always something different to see". After completing the drawing and titling it, *The Front of Where I Live*, the researcher and participant discussed how life today was calmer for the participant and that making the effort to learn to read as an adult made a difference in how the participant lived. The participant added that "being able to read made the world less stressful".

Figure 1

Participants Road Drawing



CHAPTER 5

DISCUSSION

The research conducted for this case study utilized a basic pre-posttest research design intended to gather information for establishing a link between an art therapy activity and improved literacy for adult learners. As reported by Li et al., (2020) most research points to the cognitive domain as making the largest contribution to reading comprehension and although the cognitive structures that underlie literacy and reading are not fully understood, brain research thus far connected enhanced cognition, greater comprehension, and stronger literacy skills with active engagement in creative work. According to O'Neil (2011), visual art methods, including interactions between pictures and text, have contributed to the broader understanding of literacy to include knowledge of images, gestures, and music.

Hanes (2020) recommended first viewing the road in its totality and then examining specific elements with the understanding that there is not an absolute meaning for any sign or element that may appear in the road drawing (p.8). The participant reported that they drew "the road that exists outside my home". The researcher observed that the paper was used horizontally and drawn from west to east, a decision that may indicate that road represents a story that can be read from left to right (p.12). The participant described the road as a normal street that was busy at times but not dangerous because of a light and the designated crosswalk painted on the asphalt. The participant then drew a stop sign at the end of their road. Taking the smooth condition of the road and the placement of the sign into consideration, the participant's need to include the stop sign may be associated with an attempt at impulse control or a need to establish uniformity and a sense of security as the sign informs the passing trucks, cars, and buses that they are approaching a crosswalk, a symbol representing safety. The participant

further explained that the street was well maintained, and the same people could be seen crossing the road and parking their cars throughout the day.

The researcher interpreted the drawing combined with statements from the participant as indicating the road represented welcomed consistency. The participant had emphasized this idea when discussing an overall sense of fulfillment with life that was evident in the participant's decision to depict an existing road that was familiar. The decision may reflect what the participant described as feeling comfortable with life today, especially now that she could read with more confidence.

The participant drew a reliable and predictable road. Two ideas the participant emphasized in a discussion with the researcher following completion of the drawing. The participant also confirmed a strong need for seeking certainty in life following the post-test reading assessment. At that time the participant expressed feelings of gratitude for the local library reading program that assisted the participant with learning to read. The participant explained that learning to read allowed for a more fulfilling life. The researcher linked these post-test observations from the participant to the completion of the road drawing. The road drawing activity led to reflections from the participant a more rewarding and less anxious life since learning to read. Reading allowed the participant to more fully engage in life and the participant drew a road that was active, safe and understood. Upon completing the posttest reading assessment the participant was able to describe their road from the perspective of being in the picture. The researcher further understood this observation to signify that the road belonged to the participant and the picture provided assurance and comfort.

This research examines how the act of making art could potentially enhance comprehension through the use of the Road Drawing exercise. The participant had expressed a

greater sense of satisfaction from life upon learning to read and the participants road drawing included details and symbols that formed a complete picture. Similar to learning to read and gaining greater comprehension, the participant was able to draw specific aspects of the road. Another possible outcome from this research is that the road drawing exercise may have briefly shifted the participant's focus towards their road drawing and away from feelings of anxiety associated with negative reading and learning experiences. Although small, the study offers additional information on how making art could lead to greater comprehension for adult learners.

Limitations

Having only one participant does impact the validity of the research conducted and therefore the generalizability of this study is limited and speculative. A repetitive effect also existed as the participant had previously completed the CASAS Reading GOALS assessment and was more familiar with the process during the post test. This confounding variable could also have had an impact the outcome. If a future participant had low interest in drawing a road or did not complete the road drawing activity this too could adversely affect study results. Since it may not be entirely clear which specific component of the study is directly responsible for fluctuation in scores, a more literacy specific prompt could be employed in future research. For example, the researcher could ask the participant to draw a road representing their literacy and comprehension journey. This adjustment could lead to a greater connection between literacy score fluctuation and the road drawing.

Recommendations

Results from this case study indicated there could be a link between higher literacy scores following the road drawing art therapy directive. More research is needed to determine which specific components of the intervention are directly responsible for the change in literacy

scores. Ideally, these and future findings can expand the range of methods used for teaching adult literacy to include creative drawing, or art therapy as an effective method.

CONCLUSION

It is important to investigate new ways for assisting adult learners with reading and comprehension. The idea of adding a creative action to learning is not new and more evidence has confirmed its effectiveness with children, refugees, and other populations (Lee, 2016). Studies published in scholarly journals explain how creative activities can contribute to better comprehension. Although this case study was small, with one participant, it did employ a formal testing device alongside an art therapy technique to contribute further insight into the role that art making can play in increasing comprehension for adult learners. Outcomes from the pre- and post-test study support the potential value of drawing in strengthening comprehension. An ongoing need exists for finding new approaches for improving literacy and comprehension for adults and this study contributes research on one approach for boosting comprehension through art. Repeating this study with a greater number of participants could offer additional data supporting the value of art for improving adult literacy scores. This study aimed to expand the connection between art and learning and to investigate the potential of one specific art making task. Moving forward, similar research using other art interventions and reading comprehension tests may also prove useful in expanding future teaching approaches for adult literacy and reading comprehension programs.

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