PENNSYLVANIA COUNSELING ASSOCIATION
A Branch of the American Counseling Association

Journal of the Pennsylvania Counseling Association

Volume 27, Number 1 Article 1

Spring, 2025 DOI: https://doi.org/10.71463/ZGET2328

Graduate Counseling Students' Perceptions of a Maker Therapy Workshop: A Pilot Study

Deborah L. Duenyas[1]
Roseanne Perkins[2]
Jill Krahwinkel[3]

[1]Department of Counselor Education, St. Bonaventure University
[2]Department of Elementary, Middle-Level, Library & Technologies Education, Kutztown University of Pennsylvania
[3]Department of Counselor Education & Student Affairs, Kutztown University of Pennsylvania

Author Note

Correspondence concerning this article should be addressed to Deborah L. Duenyas, Department of Counselor Education, St. Bonaventure University, Email: dduenyas@sbu.edu.

PENNSYLVANIA COUNSELING ASSOCIATION
A Branch of the American Counseling Association

Journal of the Pennsylvania Counseling Association

Graduate Counseling Students' Perceptions of a Maker Therapy Workshop: A Pilot Study

Deborah L. Duenyas[1], Roseanne Perkins[2], and Jill Krahwinkel[3]
[1]Department of Counselor Education, St. Bonaventure University,[2]Department of Elementary, Middle-Level, Library & Technologies Education, Kutztown University of Pennsylvania, & [3]Department of Counselor Education & Student Affairs, Kutztown University of Pennsylvania

Abstract

Twenty-first century counselors must continue to adapt creatively in an increasingly changing global landscape. This pilot study aimed to investigate graduate counseling students' perceptions of a Maker Therapy (MT) workshop. Using content analysis methods, the authors analyzed workshop surveys of 18 participants. Data analysis revealed three overarching themes including *Vague Understanding, Over the Intimidation Hump*, and *Creative Self-Awareness.* Implications are provided to assist counselors and counselor educators seeking to integrate MT into curriculum or clinical practice.

***Keywords*:** Makerspace, Counseling, Maker Therapy, Counselor Education

Graduate Counseling Students' Perception of a Maker Therapy Workshop: A Pilot Study

The power of experiential and expressive arts has long been harnessed by professional counselors and therapists (Rogers, 1961). Gladding (2020) defines creative arts in counseling as, "art forms that range from those that are primarily auditory or written (e.g., music, drama, and literature) to those that are predominantly visual (e.g., painting, mime, dance, and movement)" (p. 2). Expressive art therapy is described by Rogers (1993) as, "any art form that comes from an emotional depth" (p. 2). Although the terms experiential, expressive, and creative arts have distinct implications as counseling approaches, all three support the use of creativity in clinical practice. Benefits of integrating creativity into the counseling process include increased creative thinking, problem-solving, self-esteem, self-awareness, improved motor coordination and body control, relaxation, teaching coping skills, decreasing "acting out" behaviors, giving voice to internal experiences, reducing stress and anxiety, achieving a flow state, improved brain function, and improving the physical, mental, emotional and social well-being of individuals of all ages (Csikszentmihalyi, 1996; Gladding, 2020; Lawrence et al., 2015; Rogers, 1993; Shepard & Brew, 2013; Smith, 2011).

To best support future generations, counselors today must continue to embrace creative approaches while evolving alongside the continuous shifts in both culture and technology. For instance, over the past two decades,

makerspaces have gained momentum across local, state, national, and global communities, serving as platforms for fostering creative expression through activities in science, technology, engineering, art, and math (STEAM). The use of cutting-edge makerspace activities like 3D printing, virtual reality, robotics, and coding to foster creativity in counseling has recently started to pick up traction as an area of interest for counselors (Duenyas & Perkins, 2020; Pordelan et al., 2022; Wray & Emery, 2022). However, there are few, if any, specifically designed professional workshops, continuing education, and/or counselor education curricula and programming opportunities available for counselors focused on the integration of makerspace activities in the counseling process. Without these essential educational opportunities, counselors may not feel comfortable using new technologies or interventions in practice, regardless of their potential to support large portions of the population.

What is a Makerspace?

The contemporary makerspace movement traces its origins to the increasing availability of affordable digital fabrication tools such as 3D printers and laser cutters. Previously, the cost of these technologies made them virtually inaccessible outside technical programs at universities or private engineering companies. Over the past decade, however, 3D printing, laser cutting, electronics, and robotics have become increasingly affordable to individuals, educational settings, and community-based organizations. Individuals can make "almost anything" once they are empowered by these fabrication tools (Gershenfeld, 2012, p. 43).

Furthermore, any space can become a makerspace. Materials for making can be kept in a dedicated room or a small desk drawer. Common elements found in most dedicated makerspaces include a combination of high-tech tools (i.e., 3D printers, laser and paper cutters, virtual reality, sound and video editing equipment) and low-tech making equipment and materials (i.e., crafting and art supplies, building materials, paper circuits, hardware, and tools). Tools and materials vary based on the community being served but common categories include sewing tools, vinyl cutters, specialized printers, building materials such as LEGOs, basic coding and robotics tools such as Arduino kits, as well as hand tools and art supplies (Kroski, 2021).

Makerspaces and maker technologies are already being integrated into health and wellness programs for people of all ages. Krishnan (2021) is engaging chronically ill and hospitalized children in the act of making in pediatric hospital settings using Maker Therapy. Fasolino's (2019) study documented the use of makerspaces to address functional disability, depression and anxiety, and decreased quality of life in patients with chronic pulmonary disease. Fields et al. (2021) found positive results when they used social robotics as a platform for participatory arts interventions with older adults. Makerspaces that were not intentionally created with health in mind are also supporting wellness within their communities. A high school makerspace provided "an unexpected form of group therapy" after a member of the student body passed away suddenly and makerspace activities provided an outlet for the school community's grief (Seymour, 2016).

A makerspace can be utilized by counselors for maker therapy (MT) in the same way a stage may be the environment for drama therapy, a studio for dance therapy, or the outdoors for nature therapy (Duenyas & Perkins, 2025). Counselors can use MT to support clients who express themselves through making. The current study defined MT as, "the intentional use of makerspace ideology and interventions to

achieve therapeutic goals." By exploring graduate counseling students' perceptions of MT, counselors can better understand their perspectives on the relevance and usefulness of using MT in clinical practice, developing workshops, continuing education opportunities, and creating counselor education curricula and programming. The purpose of this pilot study was to investigate graduate counseling students' perceptions of a MT workshop.

Method

Content analysis is a widely used approach to research, its origin spanning decades (Hsieh & Shannon, 2014; Rosengren,1981). Often content analysis is differentiated by being either quantitative or qualitative in nature (Hsieh & Shannon, 2014). Hsieh and Shannon (2014) define qualitative content analysis as, "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (p.1278). These authors identify three approaches to qualitative content analysis: conventional, directed, and summative. They further describe that conventional content analysis is generally used for studies focused on describing a phenomenon. Thus, conventional content analysis was chosen as the method for data analysis as the pre and post-workshop surveys were textural (i.e., written open-response questions) and student perceptions of the workshop are the phenomenon under investigation.

Trustworthiness

Our research team was comprised of three members, all from the North Atlantic region of the United States: two female White counselor educators with extensive clinical and supervisory experience and one female White library and information science educator with expertise in makerspace instruction. The researchers used the following techniques to build trustworthiness and credibility: (a) bracketing, (b) researcher triangulation, and (c) peer review (Sheperis, et al., 2024; Stahl & King, 2020). In qualitative research, the researcher is the instrument of data analysis (Sheperis, et al., 2024). The first and second authors used bracketing to discuss potential beliefs, assumptions, and/or biases regarding the phenomenon to minimize the possibility of obscuring participant data due to personal viewpoints.

The second method to ensure trustworthiness, researcher triangulation, was completed by having the first and second authors independently analyze and code the data, and then compare their results to identify areas of agreement and/or disagreement. In addition to researcher triangulation, the third author provided a thorough peer review of the first two authors' systematic coding process. Peer review was used to help validate researcher findings and minimize personal biases (Hsieh & Shannon, 2014; Patton, 2002; Sheperis, et al., 2024).

Procedures

After receiving institutional review board approval, the first author introduced the workshop topic, *Maker Therapy*, to two sections of students enrolled in their final semester of Field Experience (a.k.a., Internship). At the start of the semester, the first author described the current research and invited students to participate. Participation included completing a pre-workshop survey, participant data sheet, informed consent document, and a post-workshop survey. Participation in the study was voluntary. Of the 18 students enrolled in the two sections, 18 volunteered to participate and completed the initial paperwork.

The pre-workshop survey included three questions to assess students' initial perceptions of

prior knowledge of makerspace (see Table 1). The workshop was 170 minutes in length, designed to be the length of a typical in-person graduate-level class meeting.

Table 1

Initial Survey Questions for Perspectives of Maker Therapy Workshop

Pre Workshop Questions
Describe your previous experience with Makerspaces (this might be a direct experience in a Makerspace or it may be indirect like reading an article about makerspace, seeing a book on Makerspace activities, hearing others talking about it, etc.).
What are your expectations for the Maker therapy workshop (i.e., Are you hoping to learn about the history of Makerspace, activities to use with clients, to have hands-on experience in a Makerspace, etc.)?
What are your perceptions regarding the use of Maker therapy in your clinical setting (i.e., agency, private practice, school)?

Note. These questions were designed to gain an understanding of student's experiences, expectations, and perceptions of Makerspace and Maker therapy prior to the workshop.

The first hour of the workshop consisted of the history of the makerspace movement and a review of the materials, tools, and technology often associated with a makerspace. In the second hour of training, students received an overview of techniques they could use in various counseling settings (i.e., clinical or school). The final hour of training included four experiential makerspace activities, offering students an opportunity to create and experience (see Table 2). Immediately following the workshop, students received a post-workshop survey to evaluate their perceptions of using makerspace in their own counseling work (see Table 3). Each qualitative survey (pre and post) included three open-ended questions and was estimated to take 5 – 10 minutes in length to complete. The first and second authors created the survey questions to help participants critically think about their perceptions.

Participants

A convenience sample consists of individuals from the larger population that are accessible to the researcher/s (Sheperis et al., 2024). Participants included a convenience sample of 18 masters-level counseling graduate students (ages 24 – 46) enrolled in a midsized public university in the North Atlantic region of the United States. Of the 18 participants, 15 identified as cisgender female and 3 identified as cisgender male. When asked to identify culturally (which may include nationality, race, ethnicity), 11 self-identified as White, 2 as Hispanic/Latina, 1 as Syrian, 1 as Guyanese, and 3 participants opted not to answer the question.

All 18 participants were enrolled in a master's level Council for Accreditation of Counseling and Related Educational Programs (CACREP) accredited Counselor Education program. Nine of the participants enrolled were students in *Field Experience in School Counseling*, and nine were enrolled in *Field Experience in Clinical Mental Health Counseling*. All the participants were enrolled in the second semester of their clinical field experience (i.e., Internship). This ensured the participants had experience working in the field and could provide rich and distinct

Table 2

Maker Therapy Workshop Activities

Activity name	Activity overview
Paper Circuit Images	Creation of a simple paper circuit activity with a drawing prompt (i.e., draw a place that feels safe, draw a picture for someone you are grateful to). The lights from the circuit could be stars, fireflies, eyes, sunshine, accents, etc.
Exploring My Mood	Make a representation of your mood. This could be 3D, a solid color, a mix of colors. Materials included Crayola Model Magic clay, watercolor paints, markers, and paper were provided to participants.
Power Word	Select a word that you strongly identify with/or words that you feel empowered by. Create your word/s and keep it/them with you. Materials included scrabble letters, hot glue, card stock, letter beads, string.
Build It!	Participants were provided with Legos to build something of their own design (i.e., a bridge, a robot, an animal, something funny, a house, a tower). Participants were also provided with snap circuit boards to build electrical connections.

Note. These four activities were incorporated into the Makerspace Workshop to expose counseling interns to the variety of creative mediums available in Makerspaces.

Table 3

Second Survey Questions for Perspectives of Maker Therapy Workshop

Post Workshop Questions
What was your <u>experience</u> with the Maker therapy workshop (please be specific, what emotions were you feeling in the beginning? During? In the end? What did you think about the activities?).
What insights did you gain from participation in the Maker therapy Workshop?
What are your perceptions regarding the use of Maker therapy in your counseling setting (i.e., clinical or school)?

Note. These questions were designed to gain an understanding of student's experiences, expectations, and perceptions of Maker therapy after the workshop.

perspectives. Nine of the participants reported working in a school counseling setting, six in outpatient community counseling, two in private practice, and one in a university counseling center.

Data Analysis

Using the conventional analysis approach outlined by Hsieh and Shannon (2014), the first and second authors individually read each participant's survey responses, underlining text that appeared to describe the phenomenon under investigation, graduate students' perceptions of the MT workshop. It is important to note that the pre-workshop survey (N=18) was completed in class on a date before the workshop when all students were in attendance. On the day of the workshop, a lower attendance number was recorded (N=12) and thus there was a smaller sample size for the post-workshop survey. Although a discrepancy in numbers can impact the study findings, the pre- and post-workshop surveys were collected anonymously from participants and could not be paired together. In qualitative research, participant numbers can range depending on the research question and data saturation, typically between 10-20 participants (Sheperis, 2024). As a qualitative pilot study, the number of survey responses was deemed significant for analysis. Thus, all data collected was analyzed.

While underlining data, the first and second authors noted keywords or phrases in the margins to capture developing codes. After completing the initial analysis, the first and second authors met to review the data and arrive at an agreement on preliminary codes. The coding and resulting themes were not considered complete until both researchers agreed. Using the agreed-upon codes, the authors recoded the surveys, noting if any additional codes emerged or could be combined. This process followed the current best practices of coding and theming in qualitative research (Sheperis, et al., 2024). Three distinct themes emerged from the data regarding students' perceptions of the MT workshop.

Results

Across the 18 participants, three overarching themes emerged. The themes of *Vague Understanding, Over the Intimidation Hump*, and *Creative Self-Awareness* capture the counseling graduate students' perceptions of the MT workshop

Theme 1: Vague Understanding

The majority of participants reported having little to no experience with makerspace as a concept or physical space. Of the 18 participants who completed the pre-workshop survey, 15 stated that they had either "never heard of it" or had a "vague understanding" of what a makerspace comprised. Of the three participants who stated that they knew about makerspaces, only one had used a makerspace in a professional setting as a therapeutic intervention.

With very little collective experience regarding makerspaces, participants reported in the post-workshop survey feeling "nervous," "unsure," "excited," "eager," and "overwhelmed" at the beginning of the workshop. Participants' expectations for the workshop included wanting to learn, "what is it [makerspace]?" and "how is it used with clients?" Participants also identified wanting to gain knowledge of experiential activities to use with clients (e.g., 3D printing). One participant stated, "I want to learn the mind-body connection between making something and the therapeutic connection to feelings." Several participants reported concerns regarding their own artistic ability as an indicator of their capability to use makerspace. One participant expressed concern regarding their supervisor's understanding of makerspace, "I think that it would go over well

with some of my clients, but I don't know if the supervisors will have enough knowledge to fully encourage me to do it."

Theme 2: Over the Intimidation Hump

In the post-workshop survey, participants discussed the potential for hands-on and creative activities but also identified some hesitancies over creative activities being intimidating. Participants also reported, in the post-workshop survey, that they felt less intimidated once they gained knowledge about makerspace during the informational section of the workshop. The words they used to describe their experience with makerspace activities after the workshop included "engaged," "intrigued," "challenged," and "focused." One participant stated, "[w]hen I came in the makerspace room, I felt like a kid at a candy store." Another participant compared their experience-making to "how clients may feel when asked to engage in an activity." Participants identified their desire to be challenged by a project, "I became more aware of my desire to challenge myself and how interesting and energizing it can be to do so."

Participants also reported having a better understanding of how to use makerspace in their clinical practice. For instance, one participant noted, "I have a better understanding of how to use [makerspaces] and what a makerspace is and the way it's used in counseling services" and "…part of the activity can be including my clients in choosing what activities they may be interested in." Similarly, "[i]t was great in adding perspective to creating makerspace for clients."

After the workshop was completed, participants reported feeling, "relaxed," "open," "calm," energized," "accomplished," "confident," "free," "more comfortable," and "happy." One participant stated, "This was a lot of fun to learn the importance of creativity. I had no idea the potential behind this type of therapy because it's a great way for people to find unique ways to solve problems" and "I like that the activities were each different and allowed us to be creative in our own way."

Participants reported, in the post-workshop survey, that the makerspace workshop experience helped them to build creative self-awareness by providing "permission" for them to be creative with clients. One participant reported, "[i]t's okay to try different things with clients and tap into my more artistic abilities." Another stated, "I learned that this type of counseling can help people understand the importance of creative answers, not being perfect, and that its okay to make mistakes." Along the same lines, a participant stated, "[the makerspace workshop] also reaffirmed my own interest in bringing the creative process into therapy in the future." Similarly, "It opened the doors to viewing a lot of different things as art/creative work" and "I actually thought of great ideas to use with the elementary school students I work with and things that I can do in the future."

In addition to supporting their work with clients, participants strengthened creative self-awareness in their personal life. One participant stated, "I felt like I was able to get in touch with my emotions via the paint" and "I learned where I felt more confident and more hesitant." A participant also shared, "[d]uring the hands-on experience it reminded me of how important creativity is again. It allows us to express ourselves without having to verbally express ourselves at times." Other take-aways included a participant noting that, "[s]ometimes I feel it's easier to talk to others while I'm engaging in an activity."

Discussion

The benefits of integrating creativity into counseling work with clients are numerous

(Gladding, 2011; Gladding, 2020; Murray & Rotter, 2002; Rogers, 1961). 21st Century counselors must acknowledge cultural and technological shifts such as the makerspace movement to remain effective in working with future generations. The purpose of this content analysis was to investigate the perceptions of a maker therapy workshop among counseling graduate students in clinical and school counseling internships.

According to the American Counseling Association Code of Ethics (2014, Section C.2.b), "Counselors are ethically responsible to, "practice only within the boundaries of their competence, based on their education, training, supervised experience, state and national professional credentials, and appropriate professional experience" (p. 8). Furthermore, the ACA Code of Ethics (2014, Section C.7.b) informs that "when counselors use developing or innovative techniques/procedures/ modalities, they explain the potential risks, benefits, and ethical considerations of using such techniques/procedures/modalities (p.10). Developing and piloting workshops are not only essential to helping counselors remain current with the changing landscape of the 21st century but also an ethical imperative.

The MT workshop introduced makerspace as an environment for counselors to strengthen both their own creativity and that of their clients through "making." Gladding (2011) acknowledges that creativity is not an instantaneous process. He identifies three-steps to help implement creativity into the counseling process: stop self-defeating behavior, shifting, and starting something new/adapting. The findings of this current study support Gladding's (2011) phases, as students came into the workshop with a vague understanding of what a makerspace is and how it could be used in their clinical work. Initially, participants were challenged by *self-defeating* thoughts and emotions (i.e., concerns about a lack of artistic ability and/or lack of creativity). During the workshop, participants engaged with the content and hands-on activities. Their initial perception of the space as intimidating, *shifted* to a sense of exploration and engagement with the content and materials. After experiencing the MT workshop, participants appeared to *adapt* to the new environment and clinical approach.

On a larger scale, introducing new and innovative approaches to the counseling profession (i.e., makerspace) via scholarly research, workshops, continuing education, and so forth can take time. As many of the participants in the current study initially felt intimidated by the makerspace environment, so too might professional counselors who engage with MT for the first time. There is growing empirical evidence for the use of makerspace as a tool to improve health and wellness (Duenyas & Perkins, 2025). Professional counselors are in a unique position to advance the counseling profession in the 21st century through the use of MT.

Implications for Clinical Practice

MT, similar to other expressive and experiential therapies, provides an outlet for clients to express feelings without words, providing an alternative or supplement to traditional talk-based therapy. Similarly, a shared-making activity can provide a new avenue to explore thoughts and feelings, tapping into ideas that might have remained out of the counselor's and client's awareness. Engaging in hands-on activities can relieve a client's anxiety around a more traditional talk-based therapeutic approach. It could also help to establish therapeutic rapport between the counselor and the client as they share the experience.

Beyond changing the dynamics of the counseling environment, MT activities can be selected for specific therapeutic benefits. For example, an activity that encourages a client to solve a simple problem either independently or collaboratively could help to bolster confidence and esteem. In a similar fashion, maker activities can be affirming (i.e., 3D design printing group for women). Integrating makerspace technology into the therapeutic environment can also increase clients' engagement in the therapeutic process and stimulate out-of-the-box thinking. For example, creating a short stop-motion film to express one's emotion can naturally stimulate different structures of the brain associated with empathy and critical thinking.

MT can happen in a dedicated makerspace, but counselors can also house maker materials and equipment in a closet or on a small cart. The participants noted this versatility as well; one participant wrote "I think it's doable in almost any setting," and another expressed "I would like to incorporate makerspace counseling into my work at a private practice. It seems as though it would not be difficult to do so because almost any craft is an option, and I can choose ones that fit within my own budget and work within my allotted space."

Implications for Counselor Education Curriculum

As makerspace already exists on many higher education campuses, there may be the opportunity for counselor education programs or professional development providers to use these spaces. For example, a counselor education program could use a campus makerspace to provide introductory workshops to counselors or individuals studying counseling. Counselor education programs could also embed makerspace activities into preexisting courses using the campus makerspace. Offering a makerspace counseling workshop as part of the counselor education curriculum gave students "permission" to be creative. It provided them an opportunity to explore their own emotions surrounding being creative (e.g., intimidation, stress) and process them in a safe, empathic, non-judgmental environment.

MT provides an opportunity for the introduction of 21st-century technology applications into counseling settings. Virtual reality (VR), 3D printing, video editing, digital art, etc. are increasingly affordable technologies that are accessible to novice users and are small enough to be stored in a closet or small cart. Makerspaces have been adopted into many higher education settings and can be found situated in academic libraries as well as associated with specific academic disciplines (science and technology, art and design, education). These are potential sites for symbiotic collaboration between counselor education programs and other campus entities. Counselor education curriculum could also provide solutions for future counselors who will be working in telehealth or other emerging counseling settings that may not lend themselves to hands-on activities the way traditional counseling settings might.

Limits and Future Research

Limitations of the current pilot study included the use of a small regionally specific convenience sample, the timing of the survey questionnaires, and the authors' personal biases. Furthermore, the use of a convenience sample, as opposed to a random sample, is that the results may not be representative of the general population (Sheperis, et al., 2024). Future research could include a larger random sample of students from different geographic regions who more accurately reflect the population at large.

The current study collected participant responses to the workshop questionnaire before

and immediately after the workshop. Following the workshop participants may not have had enough time to reflect on their experience as a participant and/or may have felt tired from the workshop experience. Future studies could include a one-month follow-up to the workshop to measure changes in their perspectives over time. Lastly, although, bracketing was used to enhance trustworthiness, the first and second authors have conducted prior research on the use of makerspace in counseling and could have inadvertently imposed biases during data collection.

Conclusion

Carl Rogers (1961) stated, "… that there is a desperate social need for the creative behavior of creative individuals" (p. 347). It is the opinion of the authors, that this statement is as true today as it was over 50 years ago. Creativity should be central to any contemporary counselor's practice, and MT allows counselors to activate and celebrate creative impulses in themselves and their clients. The use of makerspace activities in counseling is not yet a common practice. A better understanding of how to effectively introduce the idea of makerspace to future counselors is key to promoting the use of MT in future practice.

References

American Counseling Association. (2014). ACA code of ethics. https://www.counseling.org/knowledge-center

Csikszentmihalyi, M. (1996). *Creativity: Flow and the psychology of discovery and intervention*. Harper Collins.

Duenyas, D. L., & Perkins, R. (2020). Making Space for a Makerspace in Counselor Education: The Creative Experiences of Counseling Graduate Students. Journal of Creativity in Mental Health, 16(4), 537-547. https://doi.org/10.1080/15401383.2020.1790456

Duenyas, D.L., & Perkins, R. (2025). *Creative counseling: Empowering health through makerspace innovation*. Cognella.

Fasolino, T. (2019). Addressing challenges of patients with chronic pulmonary disease using makerspace environments. *Creative Nursing*, *25*(1), 46–52. https://doi.org/10.1891/1078-4535.25.1.46

Fields, N., Xu, L., Greer, J., & Murphy, E. (2021). Shall I compare thee...to a robot? An exploratory pilot study using participatory arts and social robotics to improve psychological well-being in later life. *Aging & Mental Health*, *25*(3), 575–584. https://doi.org/10.1080/13607863.2019.1699016

Gershenfeld, N. (2012). How to make almost anything: The digital fabrication revolution. *Foreign Affairs, 91*(6),43–57. http://www.jstor.org/stable/41720933

Gladding, S. T. (2011). Using creativity and the creative arts in counseling: An international approach. *Turkish Psychological Counseling and Guidance Journal*, *4*(35), 1–7. https://dergipark.org.tr/tr/download/article-file/200140

Gladding, S. T. (2020). *The creative arts in counseling (6th ed.)*. American Counseling Association.

Hsieh, H. F. & Shannon, S. E. (2005). Three approaches to qualitative content analysis.

Qualitative Health Records, 15(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Krishnan, G. (2021). Mission. *Maker Therapy*. http://www.makertherapy.com/.

Kroski, E. (2021). *Makerspace in practice: Successful models for implementation*. ALA Editions.

Lawrence, C., Foster, V. A., & Tieso, C. L. (2015). Creating creative clinicians: Incorporating creativity into counselor education. *Journal of Creativity in Mental Health*, *10*(2), 166–180.https://doi.org/10.1080/15401383.2014.963188

Murray, P. E., & Rotter, J. C. (2002). Creative counseling techniques for family therapists. *The Family Journal: Counseling and Therapy for Couples and Families*, *10*(2), 203–206. https://doi.org/10.1177/10664807021020

Patton, M. (2002). *Qualitative research evaluation methods (3rd ed.).* Sage.

Pordelan, N., Hosseinian, S., Heydari, H., Khalijian, S., & Khorrami, M. (2022). Using digital storytelling in rational emotive behavior therapy: Comparison of two online interventions. *Behavior & Information Technology*, *42*(9), 1410–1421. https://doi.org/10.1080/0144929X.2022.2077233

Rogers, C. R. (1961). *On becoming a person*. Houghton Mifflin.

Rogers, N. (1993). *The creative connection: Expressive arts as healing*. Science and Behavior Books, Inc.

Seymour, G. (2016). The compassionate makerspace grief and healing in a high school library makerspace. *Teacher Librarian*, *43*(5), 28–31. https://link.gale.com/apps/doc/A457693542/AONE?u=anon~4830a61&sid=googleScholar&xid=5b96d4ed

Shepard, D. S., & Brew, L. (2013). Using creativity to make practicum a transformative experience. *Journal of Creativity in Mental Health*, *8*(4), 444–455. https://doi.org/10.1080/15401383.2013.849579

Sheperis, Young, & Daniels (2024). *Counseling research, quantitative, qualitative, and mixed methods* (3rd ed.). Pearson.

Smith, A. (2011). Teaching a course on creativity in counseling: Ideas for counselor educators. *Journal of Creativity in Mental Health*, *6*(2), 149–165. https://doi.org/10.1080/15401383.2011.579875

Stahl, N. A., & King, J. R. (2020). Expanding approaches for research: Understanding and using trustworthiness in qualitative research. *Journal of Developmental Education*, *44*(1), 26–28. http://www.jstor.org/stable/45381095

Wray, T. B. & Emery, N. N. (2022). Feasibility, appropriateness, and willingness to use-virtual reality as an adjunct to counseling among addictions counselors. *Substance Use and Misuse, 57*(9), 1470–1477. https://doi.org/10.1080/10826084.2022.2092148