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Art therapy and technology in secondary education

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Abstract--This study focused on how professionals and students of art therapy perceived their level of readiness to comprehend and cope with technology as an art medium and a tool for the job. Students and teachers in secondary schools place a high value on technology. Teams in charge of managing the school make it a priority to guarantee that students in high school have access to computers. Surveys were issued to current art therapy students and working art therapists with a 40% response rate in order to assess the need for technological training. The Art Therapy Association (ATA) members who were either current students or working art therapists were the target audience for the study. Students and qualified professionals were chosen at random from the ATA membership database. The questions covered the present and prior training in technology use, the quality of that training, opinions about future training needs, and demographic information. Technology was defined as the use of computers, related equipment, the internet, and digital-based tools in art therapy practice. The results of the survey revealed that although people who replied had no formal training, they generally incorporated technology into their daily routines. With an emphasis on the roles that technology has played in high school education across time, the current study examines a variety of literature sources. The use of technology, teacher-student contact, the advantages of the technology, and any potential downsides are the key areas to concentrate on.

Keywords--art therapy, technology, secondary education.

Introduction

Students nowadays have undergone significant transformations in the last ten years (Foorester, 2017). The methods of instruction must adapt to the changing needs of students in today's modern world. The difficulties that today's pupils confront are greater than those that their forebears faced, and as a result, learning has become less of a priority. A kid's life can be changed by the pleasant environment a classroom can provide, especially if the student is given so many opportunities to thrive. "Art students learn the balance of organization and freedom to express themselves" (Foorester, 2007, p. 6). Students may be able to overcome these difficulties in a variety of ways with the aid of art.

The subject of this investigation is art therapy. Children can express themselves naturally and spontaneously via art, which aids in the growth of interpersonal and intrapersonal communication (Moriya, 2000). The evaluation of a child's inner sentiments and views through artistic expression allows for communication between that inner world and the outside world (French & Klein, 2012). According to studies, art therapy provided in a school setting aids students in resolving emotional issues and helps at-risk students and students with learning challenges adjust to the educational environment (Gersch & Goncalves, 2006). (Freilich & Shechtman, 2010; Spier, 2010). Art therapists are becoming a crucial part of the mental health team working in the educational system (Randick & Dermer, 2013).

In order to suit the demands of clients, the area of art therapy is continually incorporating new tools. One such weapon that has recently attracted more attention is technology. Looking at current trends for technology use in the general population and in general counseling practice justifies interest in the uses of technology within art therapy. Today's youngsters (especially teens and young adults) find it challenging to live without modern technology, some of which were not even accessible five years ago, like compact discs, graphic-based digital assistants, mobile phones, powerful laptops, MP3 players, and video games. School reforms have prioritized encouraging teacher-student engagement and raising the standard of instruction in the modern period. Modern devices like computers and cell phones, which improve communication and relationships, were created as a result of new inventions (Asterhan & Rosenberg, 2015). Innovation has benefited high schools as well, notably in the field of communication.

The integration of ICT into learning has become easier because of the use of technology in high schools. The discussion is much valued, especially for research on the effectiveness of ICT for teachers (Yilmaz, 2017). When new technology is introduced into high school classrooms, students get more from their education. Both teachers and students need technology because it makes learning easier and encourages better understanding. High schools have embraced the usage of smart boards, which may be used for a variety of things, including lesson planning.

Review of Literature

Huizenga, J. C., Ten Dam, G. T. M., Voogt, J. M., & Admiraal, W. F. (2017). Teacher perceptions of the value of game-based learning in secondary education. *Computers & Education*, 110, 105-115. The usage of modern technology like computers in classrooms mostly entails fundamental activities like exchanging maps and notes and using projectors for instruction (Huizenga et al., 2017). Lin, Y., Chang, R. Y. K., Britton, W. J., Morales, S., Kutter, E., & Chan, H. K. (2018). Synergy of nebulized phage PEV20 and ciprofloxacin combination against *Pseudomonas aeruginosa*. *International journal of pharmaceutics*, 551(1-2), 158-165. Videos can be utilized for homework and class assignments, enhancing classroom activities and fostering communication between students and teachers. The use of mobile devices among students has increased, and examining their advantages is crucial (Chang et al., 2018).

Schaverien, J. (2000). The triangular relationship and the aesthetic countertransference in analytical art psychotherapy. *The changing shape of art therapy: New developments in theory and practice*, 55-83. Gussak, D. E., & Rosal, M. L. (Eds.). (2015). *The Wiley handbook of art therapy*. John Wiley & Sons. Art therapy practice is arguably more challenging to translate to online settings because it includes art making as part of the therapeutic process and emphasizes the importance of a triangle therapeutic partnership including the therapist, the patient, and the piece of art (Schaverien, 2000; Gussak and Rosal, 2016). Carlton, N. R. (2014). *Digital media use in art therapy*. Lesley University. However, it has been argued that the adoption of digital media in art therapy is a slow process (Carlton, 2014; Choe, 2014), and the literature has documented both resistance to digital technology as well as concerns about the use of digital tools for art creation in therapy (Kuleba, 2008; Klorer, 2009; Potash, 2009).

Zubala, A., Kennell, N., & Hackett, S. (2021). Art therapy in the digital world: An integrative review of current practice and future directions. *Frontiers in psychology*, 12, 595536. Only a few attempts have been made to create electronic devices specifically for art therapy; as a result, existing art therapy methods have not been properly integrated with technology (e.g., Mihailidis et al., 2010; Mattson, 2015). Toll, H. (2022). *Art Therapy Education: Embracing a Perpetually Changing World (Éducation en art-thérapie: s'adapter à un monde en perpétuel changement)*. *Canadian Journal of Art Therapy*, 35(1), 1-5. Art therapy educators agree that our field must continuously reexamine educational and pedagogical practices and standards in light of new knowledge, emerging technologies, calls for increased diversity and reflection, standardization, and the needs of contemporary contexts. This consensus is shared by a wide range of historical and contemporary publications (Feen-Calligan, 1996; Kapitan, 2012; Lay, 2021; Malchiodi, 1996; Potash, 2021).

O'Banion, T. (1997). *A learning college for the 21st century*. Greenwood Publishing Group. The prevalent standardized machine bureaucracy model of education has become more and more out of date, thus educational institutions and educators must consider how to prepare students for the 21st century (Kelly, 2020). Kim, S. A. (2021). Historical and contemporary perspectives on the development of analytical music therapy training. *Nordic Journal of Music*

Therapy, 30(3), 219-237. Because training lays the "basis for securing a profession," the academic journal *Art Therapy* issued a special issue on education in 2021 that explores, examines, and critiques art therapy training from contemporary viewpoints (Potash, 2021, p. 4).

Zazzi, H., & Faragher, R. (2018). 'Visual clutter' in the classroom: voices of students with Autism Spectrum Disorder. *International Journal of Developmental Disabilities*, 64(3), 212-224. The article examined important subjects such as signature pedagogies of art therapy (Leigh, 2021), the development of students' professional identities (Jue & Ha, 2021), assessments (Franklin, 2021), and elevating the voices of students of color in classroom settings (Johnson et al., 2021). Fenwick, T. (2008). Understanding relations of individual—collective learning in work: A review of research. *Management Learning*, 39(3), 227-243. The centralization of experiential, tacit, dialectic, collaborative, and reflective learning techniques inside shared studio spaces makes art therapy education distinct (Gerber, 2016; Leigh, 2021).

Whitaker, P., & McHugh, C. (2022). Making Arrangements: The Curation of Grief in the Home Studio (Faire les arrangements: la conservation du deuil dans le studio à domicile). *Canadian Journal of Art Therapy*, 35(1), 32-42. The nature of education in art therapy was altered by the adoption of virtual learning platforms to incorporate more home art studio settings, where the liminal space of an art studio is transferred to the home (Whitaker & McHugh, 2021). Lay, R. P. (2022). Strategic Scaffolding: Constructing Context-Specific and Sustainable Art Therapy Training in Southeast Asia (Échafaudage stratégique: construire une formation en art-thérapie durable et adaptée au contexte en Asie du Sud-Est). *Canadian Journal of Art Therapy*, 35(1), 6-11. In order for art therapy methods to be sustainable and applicable across contexts, strategic scaffolding ensures that professional training incorporates contemporary technological advancements and collaborative cultural practices.

Methodology

Method

250 members of the Indian Art Therapy Association who were either active art therapists or current students were the intended audience for the study. From the membership list of the Art Therapy Association, the email addresses of certified professionals (50 percent of the sample) and students (50 percent of the sample) were randomly chosen. When attempts were made to send requests to participate, 128 of those email addresses turned out to be inactive. 73 of the extra 128 email addresses that were retrieved later turned out to be invalid. There were 177 requests that were successfully transmitted in total. Of those, 45 surveys were successfully completed and returned, while 12 surveys were returned but could not be read owing to technical issues. The response rate was 40% as a result. Nine multiple-choice or single-answer questions and seven open-ended questions made up the 16 items in the survey. Demographic information, current and previous training in technology for art therapy, the quality of that training, ideas about the kind of future technology training that art therapists might need, and

current and past use of technology in art therapy practise were all topics covered in the survey questions.

Participants

45 art therapists or students employed by the Ministry of Education and working at various schools across India were interviewed for this study. All of the participants were art therapists who had worked for the Ministry of Education for two to twenty-five years or were currently enrolled in school. Semi-structured interviews were employed in this study, which was based on the Consensual Qualitative Research methodology (Hill et al., 2005). The CQR technique calls for a thorough, semi-structured interview protocol that includes a number of scripted questions and a list of suggested probes to encourage the interviewees to go further into their experiences. The three-part interview was formatted according to an interview guide. The participants introduce themselves and discuss things like their schooling, the number of hours they work each week, their working conditions, and other things in the first section. The participants are questioned about their personal interactions with the school personnel at work, the physical working environment, and the nature of their relationships with clients' parents during the second portion of the interview. They are also questioned about their opinions of the benefits and challenges of art therapy in the educational system.

Objectives

- to research the connection between secondary education and technology.
- to evaluate the value of art therapy in higher education.

Sample

A sample of 45 people who meet the criteria was included in the study.

Inclusion Criteria

- Concerned with the Use of Contemporary Digital Technology (DT) in Within-Session Art Therapy Practice with Clients.
- Reported Results Observed Through Empirical Study, Regardless of These Were Investigated Using Quantitative, Qualitative, Mixed, or Arts-Based Methods.
- Available Online and in English.

Exclusion Criteria

- focused only on using digital technology for administrative tasks, evaluation, supervision, training, or research;
- were theoretical or opinion pieces without any published empirical data.
- were Ph.D. theses, dissertations, books, or book chapters.

Procedure

Email invitations, mailing lists for various forms of art therapy, and relationships with directors and principals who work in the educational system were all used to recruit participants for the study. A date was scheduled for the interview with the art therapists who consented to take part in the study after a phone call outlining the details of the study. Each therapist underwent a semi-structured, one- to a two-hour long interview that included a questionnaire. The therapists all completed a consent form and agreed that the information from the interviews might be used for the study. The researchers promised confidentiality. The interviews were taped and written down. Nine multiple-choice or single-answer questions and seven open-ended questions made up the 16 items in the survey. Demographic information, the current and past training in technology for art therapy, the quality of that training, ideas about the future technology training needed by art therapists, and the current use of technology (defined as computers and accessories, the internet, and digital-based tools) within the practice were all covered in the questions.

Discussion

The survey's open-ended questions, which were divided into three groups, made up half of the questions. These three groups were picked in order to find out what kind of technology training was offered, how it was being utilized at the time, and how art therapists saw it being used in the future. Regarding the sorts of training offered in art therapy education programs and job sites, the first group inquired. All of the therapists stated that it is advantageous in many ways to be able to collaborate with other key figures in a child's life, such as the school staff and family. In order to meet the child's needs and therapeutic goals, the therapist can get a comprehensive understanding of the youngster. The majority of therapists claimed that working in the educational system gave them the opportunity to assist students in overcoming challenges they faced on a daily basis, such as social and adjustment issues, conflicts with teachers, etc. Therapists might get to know their patients better by working in the educational system. Some therapists claimed that by being there in the child's natural setting, such as during recess or during observations, they might learn more about the client.

Therapy is made more accessible for groups in society who otherwise wouldn't be able to pay for it by offering it in schools. Additionally, treatment is made available to kids whose parents are unable to participate actively in therapy: "The parents are typically the ones who are unaware that the child requires therapy. The parent must have a babysitter for the other children during those hours because they are prohibited from working ". Many families find it easier because counseling is covered by the school system, according to some therapists. The stigma associated with seeking treatment is also diminished by its accessibility. Despite the fact that some art therapists were ingeniously enhancing their sessions with technology, a significant number of respondents claimed they did not utilize any technology at all in their practice. Their reasons for not using technology included the exorbitant cost of the necessary tools, the agency's lack of value for technology and artmaking, the lack of time available for use and

training, their discomfort with the media, and the conviction that it does not satisfy customers' sensory needs.

The need for training in the use of technology as an adaptable and accessible tool for clients with impairments was raised by a number of art therapists. One commenter brought up the potential attractiveness of technology-based art to "customers who may be concerned because they may not be confident in their artmaking talents." As examples of resources that could be taught in educational programs tailored specifically to art therapists, some respondents cited interactive websites already in existence and specific programs like "Star," created by Steven Spielberg for use with cancer patients. Three elements that boost students' motivation in a technologically advanced environment were the subject of a 2018 study by Goldin and Katz. As students recognized the value of their ability to communicate with others in real-time by using technologies like computers, the factors included communication, learning, and empowerment. Real-time communication over the internet makes connecting with others possible. As they were isolated from teachers and less afraid to interact with others in a technological environment, the students felt more in control. Students said that using computers encouraged independence and gave them more control over their education (Goldin & Katz, 2018).

Significant changes in education have resulted from technological improvements, particularly in the way the internet is used. Sharma and colleagues conducted research on the impact of web-based learning on students' online motivation. Documentaries and videos are used to assist students in better understanding the material being taught in class. In a classroom setting, flexibility facilitates collaborative learning. The study's findings inspire scholars who want to make the idea of technology use in the classroom a reality. Portable technology, wireless technology, and network inventions have all advanced significantly in recent years. The integration is anticipated to use technologies in a high school setting for teachers and students to use contemporary advancements (Singh, 2018). Mobile devices make it possible for teachers and students to collaborate while using computing resources anywhere. The interconnection of mobile devices with other computing devices, such as laptops, tablets, and other products, is facilitated by the internet and wireless technologies (Hinostroza et al., 2016). Utilizing wireless technology and portable devices in high school classrooms can improve accessibility and convenience of information linkage, according to recent empirical research (Shernoff et al., 2017). It is crucial to assist students in participating in educational activities regardless of where they are, to provide support to groups in developing a plan, and to enhance communication and cooperative learning in the classroom.

The 1970s saw the emergence of alternative learning school environments in the US. The alternative school is a learning environment created to meet the educational, behavioral, and/or medical needs of kids and teenagers who can't be satisfactorily met in a typical learning context (Sisk, 2017). Recognized as an alternative approach to addressing the needs of kids and teenagers who, because of learning disabilities, specific medical conditions, psychological and behavioral problems, or advanced skills, cannot learn effectively in a traditional school setting (i.e., traditional public or parochial schools). Alternative learning

environments assist students to develop on an individual basis, improve social skills, and offer greater freedom in organization and administration as they include self-confidence building into their curricula (Sisk, 2017).

Any youngster who is having issues with their learning, conduct, or emotions may benefit from art therapy. It is emphasized that kids who struggle to express their thoughts and feelings in words may find that art can help them find a nonverbal way of communication. Students who receive this type of art therapy may be better able to understand their emotions, understand who they are, and deal with challenges both at home and at school. According to studies, kids who are encouraged to draw while they talk reveal more details than kids who are only asked to talk. These results demonstrate that using art to facilitate conversation decreases children's anxiety, rage, and fear and fosters a closer relationship with the interviewer.

Conclusion

Students who are exposed to art are better able to recognize and appreciate their surroundings and engage in critical thinking (Freedman, 2003). Expressive arts therapy, Gestalt therapy, person-centered therapy, and creative connections are the four main approaches to art therapy. All forms of art therapy can be utilized to support and safely help people deal with emotional trauma and/or social pressures. These art therapy techniques can encourage creativity, spark it, and reconnect us to our true selves (Rogers, 2016). Art-based examinations are used in a variety of ways by art therapists. They can make use of each one to gauge their progress in therapy, appraise their personalities, and demonstrate change (Malchiodi, 2014). According to the study, both teachers and students can profit from the use of technology in the classroom. In many schools, computers are an essential tool that has helped to improve student learning and instruction. In addition to word processing, the internet is one of the best tools in contemporary technology that instructors and students employ. In recent years, high schools and other organizations have increasingly adopted the World Wide Web as a tool for computer technology.

The area of art education has been debating these concerns and appears to have come to the conclusion that technology-based artmaking is simply a new tool—like a new kind of clay—with which to produce art; artists must master the special features it has to offer. According to Dilger and Roland (1993), artists have always made use of the technology available to them. Many of the same opposing arguments that were used to criticize photography when it was initially introduced to the art world are now leveled at technology-based artmaking tools (Betrus & Molenda, 2002). Instead of replacing conventional art forms, the use of computers, scanners, digital cameras, and other digital media expands the range of media that can be used to create art. O'Neil (1995) has discovered that by providing instructors with access to more resources, technology has increased their repertory of effective teaching methods rather than displacing the resources they already use.

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