Abstract
Clinical research in expressive therapies, psychodrama in particular, offer education researchers and software designers descriptive analyses and evidenced-based impact studies on attitudinal shifts and enhanced problem solving abilities for patients and students who participate in psychodrama role-play. Gaming environments and virtual worlds that use purposeful role-play as a central activity of their milieu are in need of additional evaluative frameworks to assess their efficacy as an educational medium. The dynamic quality and complexity of these interactive informal learning environments defy measurement and analysis using single research paradigms. Clinical research on psychodrama practice as a therapeutic activity that considers both cognitive and emotional outcomes of role-play as change agent and a process that contributes to personal growth is discussed. The article summarizes psychodrama research, includes a discussion of its application to the evaluation of role play in gaming and virtual worlds, and offers a bibliography for exploring this subject in more depth.

Article

Introduction
We are, undisputedly, intensely social beings who are embedded in our families, extended families, and work relationships in life long commitments. In our highly mobile western society in which career change is soaring, increasing social and economic instability for individuals and families, virtual worlds appear to have filled the void to solidify our sense of connectedness and serve as a forum for social networking and entertainment. Gaming environments and virtual worlds have proven to be attractive to an increasingly wider range of age groups. Not long ago it might have sufficed to say that the difference between children’s play and adult play is that children are investigating reality through play and adults are escaping reality, from an educator’s perspective. Today, on the contrary, the complexity and sophistication of dynamic games and virtual worlds seems to have extended the life of investigative and purposeful play for adolescents and adults.

Before the phenomenon of ActiveWorlds and Second Life took flight in popular culture, Sherry Turkle (1986, 1994) concisely and comprehensively documented the psychological draw that the Internet and virtual spheres offer in experimenting with alter egos, adopted personas, anonymity, sexual identity and more. In tandem, we understand that in a culture that overvalues individualism at the expense of collective interdependency, games and virtual worlds provide a creative outlet for exploring ambitions and fantasies that are denied expression in the context of...
our focused and restrictive work lives. Saul Bellow once said that ‘most people have occupations too small for their spirits’ and in this vein new media learning environments are, at best, a testament to the extraordinary creativity of the human mind and the drive to expand and explore our social world more fully.

Software developers who create computer games and electronic media curriculum designers who build educational materials for informal learning contexts have long recognized the opportunity for role play as a compelling force pulling participants into virtual worlds, and for students, as a draw to exploring new subject matter. The attractiveness of these relatively new ‘virtual living rooms’ have educators and those charged with making programmatic decisions about their impact and use asking ‘what does it all mean’ and ‘how can we assess their contribution to the educational landscape?’

Cross media and comparative media studies that chronicle how different materials and media influence and mediate the learning process continue to grow in number. From pencils to puppets, video and malleable digital media, there are a wealth of studies that have documented how each of these materials facilitate or increase the ‘cognitive load’ on our ability to process and make sense of information or solve problems (Jenkins et al 2006). Even so, gaming and virtual worlds present new challenges for evaluating how role-play effects or impacts real life interactions and competencies.

Online, education researchers have recently acquired more precise sociometric statistics for their arsenal of tools. The Internet is the perfect medium for gathering sociometric data, defined as tracking the relational vectors between individuals in a group. Observing behavior discretely through web logs (i.e., where people go, page views, time on task, who communicates with whom) has allowed for enhanced precision and reliability (vs. verbal report) in regard to researching the digital realm. Time-sampled transactional analysis of web activity and video is another example of how visual media can be scrutinized, enriching data streams for researchers. What’s lacking from this cache of tools are measures characterizing the attitudinal shifts and enhanced problem solving abilities that result from participation in virtual or simulated role-playing activities. There are existing studies in the social sciences that researchers and designers may find illuminating on the practice of psychodrama that consider both cognitive and emotional outcomes of role-play in changing behavior. The following summary of these studies will offer a glimpse of what this body of literature has to offer.
The world of role play games (RPGs), multiple user virtual worlds (MUVs), and massively multiplayer online role-playing games (MMORPGs) is very broad. For the purposes of this article, I am artificially segmenting the field into three goal-oriented categories; (a) role play for entertainment purposes found in social networking settings in which users are seeking open-ended adventures with no specific goal; (b) role play that has some structure, with the goal of purposeful exploration of a new identity, career path, or skill set which could be social, emotional, or intellectual; (c) role play that is highly structured for the purpose of fulfilling monetary, work related, or professional development goals and requirements. Mining the clinical literature on psychodrama will be most helpful to those interested in (a) or (b).

The Origins of Psychodrama as a Therapeutic Practice

Psychodrama is an 80+ year old psychotherapeutic practice that employs role play as an instrument for exploring social relationships, and, to promote intra-psychic self reflection. It has an extensive history of use as an adjunctive psychotherapy in clinics, psychiatric hospitals, and as an educational process in schools. Dr. Jacob L. Moreno is credited for defining the discipline of psychodrama and sociometry. A psychiatrist by training, he was born in 1889, and studied medicine, mathematics, and philosophy at the University of Vienna in Austria. As a young man he met Freud (a generation older), but was much more influenced by Wilhelm Reich and his ideas about psychoanalysis and the origins of psychopathology. Moreno came to New York in 1925, where he lived and worked until his death in 1974. During that time he lectured at the New School for Social Research and at Columbia University, conducted workshops at many medical training institutions, and founded the Beacon Hill Sanitarium in Beacon, New York, where he trained people in clinical psychodrama technique and treated patients.

Above all, Moreno championed the power of creativity manifest in imagination and spontaneity as therapeutic energies that could conquer all of life’s challenges if properly channeled. Moreno’s methods have been faithfully adhered to over the years, with some modification, and are taught in many clinical psychology and expressive therapy programs today.

Role Theory and Sociometry

At the turn of the previous century, there were many social psychologists and personality theorists who wrote about the relevance of role identification in human development and social adjustment (e.g., Alder, Allport, Freud, Jung, Lewin). Moreno took these concepts from the drawing board and theoretical realm into practice. In short, he ‘operational zed’ the study of how
people modulate the multiplicity of roles, ego states, and personas of daily life by creating
dramatic exercises and situations that examined and gave language to the intricacies of role
identification and the meta-analysis of intra-psychic functioning. This linguistic and dialectic
scaffold, which was missing from the field of clinical psychology in the early and mid 20th
century, contributed to the growth of behavioral-action therapies (i.e., encounter groups,
transactional analysis, gestalt therapies).

Moreno was an early proponent of group psychotherapy, and used sociometry as a diagnostic tool
to inform him about the social and psychological issues present in a therapy group. Before
sociometric data was gathered surreptitiously through the Internet, it was gathered by
questionnaires, or through interviews. Additionally, Moreno used spontaneous sociometric
polling to help him guide psychodrama session groups (i.e., asking group members to determine
who gets to be the protagonist, and identify issues in need of work).

**The Psychodramatic Stage**

Key to Moreno’s methods and clinical practice was the way in which he valued and used human
imagination. Moreno celebrated our ability to generate ‘surplus realities’ and believed harnessing
imagination in the service of the ego was a potent therapeutic marriage. The five elements of a
psychodrama defined by Moreno are; the *stage*, the *director* or psychotherapist, the *protagonist*
(the person who defines the dramatic agenda and narrative), an auxiliary or double (one or many
who represents the protagonist’s alter ego or selves), and the audience (Moreno, 1953). The
director of a psychodrama often has an ongoing commitment as a clinician and group therapist to
the group of people with whom s/he is working. Among group members, personal and collective
issues may be talked about and analyzed before moving onto the psychodramatic stage.

The audience, as witness, plays a very important role in supporting and sharing the insights and
self-realizations experienced by the protagonist. Refusing to stigmatize the therapeutic process as
something that should be hidden or remain the private realm of doctor and patient, Moreno
embraced the power of the stage as an important societal form of communication much the way
the Greeks and Romans used theatrical forums to solidify their constituencies. Story telling as a
communal act of healing is also central to the enterprise. Inherent in Moreno’s notion of the
therapeutic stage, is that the health of the individual can not be separate from the health of the
community as a whole.
In a psychodrama, anything can be ‘enrolled’ as a character within the psychodramatic narrative that the protagonist identifies as an obstacle to his or her own personal growth; people, places or things. A typical psychodrama is two hours long, includes a ‘warm-up’ exercise to energize the participants, but has no set script. It is purely improvisational and its narrative unfolds from the collaboration between the protagonist, and the director. Imagine the possibilities—an endless variation on life’s conundrums. The psychodrama stage is sometimes the solitary home of the protagonist and director, or, it can be a cacophony of competing voices and needs that have been embodied by a troupe of auxiliaries.

This seemingly free wheeling approach to addressing intra-psychic and social unrest is grounded by the expertise and skills of the director, and does have rules (most of which can’t be addressed in detail in this article). Having participated in a number of psychodrama sessions with very skilled directors as a clinician, I can report that they are as gripping and as eye-opening as the very best film or theatre performance. Yet they are something more; they are expressions of emotion and conflict that are purposefully and alchemically changed and refined through examination. Not every session is resolved successfully; many often uncover a myriad of problems. However, the goal of the psychodrama is to bring the protagonist’s dilemma to a satisfying close—to end in a more illuminating place than they began.

**Psychodrama and its Likeness to Virtual Worlds**

Like virtual worlds, the psychodramatic stage defined by Moreno fully invests in the power of surplus reality to augment, support, and transform personal preoccupations in productive and beneficial ways. Moreno’s mastery of fantasy as an implement of therapeutic change makes his work particularly relevant to the evolution of virtual social interaction at a time when virtual real estate has grown beyond the size of the original 13 colonies.

The Internet and the devices we use to connect to it beckon us to come closer and share every aspect of our lives, as its undemanding, technically sophisticated seeing, hearing, and sensing architecture grows evermore omnipresent. Virtual worlds are now ready willing and able to be the playground for our unconscious, but without the judgment, credentials, clinical experience, or ethical scruples of a seasoned psychotherapist guiding interactions between virtual strangers. Rather than ‘sound the alarm’ I am suggesting this is a teachable moment. Clinicians who are specialists in group process and small group functioning, including psychodrama, could infuse the design and the construction of virtual worlds with language, procedures and methods that contribute to harmoniously functioning groups to the benefit of all involved.
The growing sophistication of role playing activity in many virtual environments on the Internet rivals the complexities of life. The clinical research literature on effects of psychodramatic role play as change agent provides a unique record of how the purposeful exploration of alternative personas and conflict actually influence behaviors in other contexts. A bibliography is provided for further study for those readers wanting to explore further.

Summary of Psychodrama Research and Outcomes

Kipper (1996) gives a succinct summary of how role play activities have been serving as ‘societal glue’ across cultures and centuries, noting that role playing has been associated with: “the alleviation of feelings of helplessness and uncertainty; with reducing fear; with instilling hope; with forming a coherent sense of self-identity; with healing; and with efforts to enhance understanding among people” (p110).

Remer (2005) explores the relationship between the constructs of chaos theory (i.e., strange attractors, bifurcation cascades, unpredictability, fractal boundaries and dimensions) and human sociometry, drawing attention to the fact that naturally occurring geometric laws of nature appear to be replicated in human communication. Remer also observes that “the recognition of social interaction patterns and of their influence, origins, and fluctuations over time has been [an] important contribution of Moreanean theory” (p.147). This discussion raises some interesting questions about whether these same sociometric behavior patterns are duplicated in virtual environments as well. What would metaverse analysis show?

Rousseau and Gauthier (2005) report on drama therapy workshops for adolescent immigrants and refugees using a technique known as ‘playback theatre’ which is derived from Moreno’s psychodrama method. Using a descriptive approach to reporting process and outcomes, they convey how the drama activities facilitated the students’ adaptation to their new country and school life, and benefited their academic participation in the classroom as well.

The use of future projection in psychiatric acute care settings to imagine a healthy self is discussed by Baratka (1994). Given the brief average patient length of stay in psychiatric facilities, between 21-38 days in this case, a focus on returning patients to normal life in a more robust condition is an important treatment goal. The idea of developing a future persona in as much detail as possible in dialogue (i.e., defining the support system, activities, physical and
emotional attributes necessary to regain and maintain mental health), with role play is cited as a useful strategy for reinforcing new behaviors in the patient recovery process.

Swink and Richardson (1984) offer a summary of previous studies on role play referencing Elm’s (1966) use of role play to facilitate attitudinal change and affect in school students; Altschuler & Picon’s (1980) study of the contribution of role play to increasing self-concept; Kippir & Ben-Ely’s research on the role of ‘doubling’ in increasing empathy (1979). The Swink and Richardson historical review also cites role play and behavioral change versus other methods of communicating information (Lazarus,1966); role play’s influence in increasing verbal facility (Goldstein, 1971); role play and increased perception of body image (Stavens,1983). In addition to providing several useful references to previous evidence based research articles, Swink and Richardson report on their own study on how sociodramatic role play effected changes in internal vs. external locus of control in grade school children.

**Application to Virtual Worlds and Education Research**

The world of education where simulation, role play, and modeling solutions to social, scientific, and engineering problems are tools for predicting and designing the future—is here. Technology continues to be a driving force for synthesizing knowledge and breaking down artificial barriers between disciplines. We know intuitively that affect, intellect, and imagination are equal partners in the learning process; however our educational systems have evolved favoring intellect to the exclusion of nearly all other types of intelligence. Gratefully, there is growing awareness across academic and business communities that this lopsided approach to classroom instruction is taking a heavy toll on the ability of each child to develop his/her talents and full potential. There is also a movement afoot among education researchers to utilize multiple data sets and research approaches in support of multiple intelligences creating room at the table for affect and imagination as important components of education curriculum (Gardner, 2006).

Informal new media learning environments and virtual worlds, without the constraints and biases of catering to the intellect, have evolved along a different path. They are intriguing because they present a new canvas. However, a discriminating look at the past for ideas that have ‘come of age’ in virtual worlds may be very worthwhile. At a recent gaming conference I overheard a conversation between two young ‘gamers’ who were struggling to define differences between learning a skill from real life experience versus the virtual world. Not having the benefit of years of graduate school study on comparative media research, they lacked the nuts and bolts for discussing categories of difference, and were at a loss for words. Even emotive differences,
which I assumed was language that was readily available to them, escaped notice. Surely the experience of learning to play chess with your grandfather compared to learning to play chess in the virtual world has a different emotional valence worth noting? On second thought, it occurred to me that just as these students needed categories and concepts for analyzing the way media alters our experience of learning, they may never have had the opportunity to put words on the breadth of their emotions, as this too requires careful thought and examination.

The future demands educators who are both experts in the humanities, and skilled technologists. Continued assimilation of the social sciences and creative disciplines into the production of new edutainment technologies promises a profound change in education culture. Revisiting the clinical psychodrama literature is one significant step on the way. Psychodrama has developed structures and rules for role play and research data on sociometric outcomes that can provide software designers with new perspectives on how to build satisfying virtual world user experiences. Conversely, it may also enhance the technologist’s appreciation of first person encounters which can not be replicated in cyberspace.

**About the Author:**
Susan Imholz, Ph.D., is an education and information technology consult to schools and nonprofit organizations with a focus on using technology as an expressive and creative medium. She has had a clinical career as an art therapist in psychiatric hospitals and clinics, and did additional graduate work with the M.I.T. Media Laboratory Learning and Epistemology group.

**REFERENCES**


For a brief synopsis of Alfred Adler’s theories see [http://webspace.ship.edu/cgboer/adler.html](http://webspace.ship.edu/cgboer/adler.html) and [http://www.alfredadler-ny.org/alfred_adler.htm](http://www.alfredadler-ny.org/alfred_adler.htm)


For brief synopsis of Gordon Allport’s theories see [http://webspace.ship.edu/cgboer/allport.html](http://webspace.ship.edu/cgboer/allport.html)


For a brief synopsis of Sigmund Freud’s theories see [http://webspace.ship.edu/cgboer/freud.html](http://webspace.ship.edu/cgboer/freud.html)


For a brief synopsis of Carl Jung’s theories see [http://webspace.ship.edu/cgboer/jung.html](http://webspace.ship.edu/cgboer/jung.html)


**OTHER RESOURCES**

Professor Emeritus Adam Blatner maintains one of the most useful resources for people interested in learning more about psychodrama, a current and growing bibliography of books and journal articles on the subject. See [http://www.blatner.com/adam/default.html](http://www.blatner.com/adam/default.html) Kudos—Thank you Dr. Blatner!


**BOOKS**

