



Conference Abstracts

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Students with autism spectrum disorders (ASD): Implications for music educators

Mary Adamek, The University of Iowa, USA
[email: mary-adamek@uiowa.edu]

Amelia Furman, Minneapolis Public Schools, USA
[email: afurman@mpls.k12.mn.us]

According to data collected for the U.S. Department of Education (2007), over 258,000 students with autism received services in the US under the Individuals with Disabilities Act (IDEA) (Data Accountability Center, 2007). This is more than three times the number of students with autism served just five years earlier in 2002. Approximately 1 in 100 children are diagnosed with ASD and this disorder is four times more prevalent in boys than girls. The number of individuals diagnosed with autism is increasing rapidly by a rate of 10-17 percent each year (Autism Society of America, 2010). Although autism is considered a low incidence disorder, many music educators work with students with autism each week in schools. This paper addresses the characteristics of students with autism spectrum disorders (ASD); educational Implications; music education for students with autism spectrum disorders including adaptations for successful music education experiences

Exploring the benefits of using piano wizard with older adult piano students

Melita Belgrave, University of Missouri–Kansas City, USA [email: melitajeane@aol.com]

The purpose of this study was to create a lifelong learning experience for older adults through private piano instruction using Piano Wizard software. Piano Wizard is a technology-based instructional method that utilizes sensory learning. Piano Wizard operates through a laptop computer and midi keyboard. Five older adults, who attended an urban senior center in a large Midwestern city in the United States, volunteered to participate in the lifelong learning music program. Eight 30-minute sessions occurred in which the researcher taught older adults piano lessons individually with the Piano Wizard technology. Three research questions were examined in this study. 1) Is Piano Wizard an effective tool to teach older adults piano? 2) Does participation in a music-based lifelong learning program enhance older adult's subjective well-being? 3) What are older adults' perceptions of music technology as an instructional method? Results revealed that students progressed through the Piano Wizard method book over the 8-week period. Results of a researcher-developed survey revealed that older adults perceived that the piano lessons provided them with a weekly meaningful

activity; and that the lessons required the use of cognitive skills. Additionally, older adult participants' perceived benefits of the Piano Wizard teaching method pertained to visual and audio feedback, ability to adjust the tempo while playing, and the overall teaching method. Implications for practice with older adults will be discussed.

Participation in musical activities and quality of life for elders in Taiwan

Jessie Chen, National Taichung University of Education, TAIWAN [email: jessiehsc@hotmail.com]

I-Yun Liang, National Taichung University of Education, TAIWAN [email: iy34@hotmail.com]

People experience music in their lives both consciously and unconsciously. Some people listen to music passively as they shop or engage in other activities. Others actively engage in music by participating musical activities, such as going to concerts or singing. One population which has expressed great interest in active music participation is known as the "Elderly Society." The Taiwanese government has provided the impetus for active engagement by offering various courses in order to improve elders' quality of life. Among the courses being offered, such as health, entertainment, social intercourse, technology, finance, and art, music stands out by its nature and functions. The purpose of this study was to explore the relationship between participation in musical activities and quality of life for the elder society. Survey instruments included the "Taiwan concise version WHOQOL-BREF" and the "Music Activities Survey." Participants were drawn from three major metropolitan areas in Taiwan and the target population was elders over 55 years of age. Two hundred and fifty questionnaires were sent with an 89.9% return rate. Elders believed that physical and psychological well being, independence, social relationships, environment, and spirituality/religion/personal beliefs were very important to their quality of life. Results also revealed that elders who were learning or who had previous experience in learning to play music instruments obtained significantly higher quality of life scores. Additionally, elders who had previous experience in playing musical instruments showed significantly more positive attitudes towards "the importance of health conditions." Moreover, elders who had attended concerts for several years prior to the study had significantly different responses regarding quality of life and health conditions ratings in comparison to those who had only attended concerts within the last year.

Reflections on a disability simulation by pre-service music educators and student music therapists

Cynthia Colwell, The University of Kansas, USA [email: ccolwell@ku.edu]

The purpose of this study was to examine and compare reflections of individuals participating in a simulation

experience designed to impact attitudes of pre-service music educators and student music therapists enrolled in coursework which targeted working with children with special needs. On the first day of class, participants completed a Mainstreaming Questionnaire. Following completion of the questionnaire, participants were asked to simulate one assigned disability in a public venue and included lower-limb paralysis in a wheelchair, one-arm amputation, hearing impairment, or visual impairment. After the specific assignment was made, participants were instructed to list pros and cons of simulating a disability. After the simulation, participants completed the questionnaire as a posttest measure and completed a post-simulation written reflection following five prompts. Results of the questionnaire indicated a significant change from pre- to posttest for the group as a whole when examining total attitude scores. Proposed questionnaire statements, responses to the pros and cons list as well as the post-simulation reflection were coded, categorized, and counted. Trends are discussed.

Music perception via acoustical and electrical stimulated hearing: A descriptive meta-analysis

Alice-Ann Darrow, Florida State University, USA [email: alifsu@mac.com]

The purpose of this study was to compare the music perception of listeners using two different types of assistive hearing devices. Research findings suggest that the music perception performances of cochlear implant and hearing aid users vary depending on the type of task. Music is a complex sound comprised of elemental components with each perceived differently by acoustical and electrical stimulated hearing. Published reports on music perception by cochlear implant and hearing aid users were analyzed to compare participants' scores on tests of pitch and rhythm discrimination, timbre identification, melody recognition, and quality appraisal. Results revealed an overall mean d value of $-.001$ for the included studies, indicating that cochlear implants were not more effective or efficient than traditional hearing aids in transmitting sounds for the purposes of music perception. The findings of this study qualify frequent citations indicating that cochlear implantation adversely affects music perception. Results support the requisite caveat that data are mixed with the overall effect of implantation on music perception insignificant compared to that of hearing aid users.

Musical gaming: Crossing the cultural divide between deaf and hearing

Alice-Ann Darrow, Florida State University, USA [email: alifsu@mac.com]

Musical gaming has become a recent phenomenon exerting tremendous economic, social, and cultural influence. The most familiar medium for gaming is *Guitar Hero*, a rhythm-based music video game in which players must press the right key at the right time in order to 'score.' With over 14 million *Guitar Hero* units sold

since 2005, and bars across the country hosting *Guitar Hero* nights, musical gaming has become a prominent feature in popular culture. *Guitar Hero*, the most widely played of the musical video games, has found a special place in deaf culture, primarily because ‘musical’ skill is not dependent upon one’s ability to hear, but rather on one’s visual processing skill and eye-hand coordination. The purpose of the present study was to examine the influence of hearing status, experience with musical gaming, and task difficulty on participants’ scores for three guitar tracks of increasing complexity taken from the series, *Guitar Hero World Tour* (2008). Participants (N = 50) were persons with typical hearing (n = 25) and persons with severe to profound hearing losses (n = 25). Experimental stimuli were guitar tracks programmed for *Obstacle 1*, the second single off of Interpol’s *Turn on the Bright Lights* (2002). Results revealed no significant differences between participants’ scores based on hearing status; however, significant differences were found between participants’ scores based on their experience with musical gaming. Participants who indicated they had played many times scored significantly higher than those who had never played or played only a few times. Significant differences were also found between participants’ scores based on the difficulty of the task. Participants’ scores were significantly lower on the difficult guitar track than on the easy or moderate tracks. These data indicate that for individuals who are deaf, musical gaming may be a viable means of musical expression, and to participate in music making in ways similar to and equal to persons with typical hearing.

Music therapy – breathing methods incorporated into health promoting exercises. “A music therapy for people in their 60’s to 90’s currently leading normal lives”

Yoshiko Fukuda, JAPAN
[email: YQR03743@nifty.com]

This music therapy approach is designed for the elderly who receive medical treatment or who take medication but who ultimately leading normal lives and wish to remain active into the future. Between 16 to 18 subjects participated in therapeutic sessions. Before and after each session, peak flow value, blood pressure, and pulse rates were measured. From this, participants were able to gauge their physical condition which had a useful application for their everyday lives. After participating in sessions for four years, and allowing for individual differences, the following was achieved. On average, peak flow values increased by 40.5%; average high blood pressure reading levels decreased by 57%; and average low blood pressure readings decreased by 49.7%. Moreover, pulse rates decreased by 74.2%. From these figures, we understand that singing and exercising at the same time allowed participants to become aware of their lung capacity thus helping them improve the quality of their everyday lives.

Music therapy in paediatric oncology treatment: Clinical practice guidelines from the research literature

Lori Gooding, University Of Kentucky, USA
[email: lori.gooding@uky.edu]

The development of evidence-based clinical practice guidelines in music therapy treatment for pediatric patients with cancer has been limited in the past by small sample sizes, poor design, and limited descriptions of music therapy interventions in the research literature. In recent years, the growing recognition of complementary approaches like music therapy has led to an increased investigation of applications in oncology treatment. Research has revealed that music therapy interventions, in particular, have been effective with pediatric oncology patients. Moreover, treatment protocols are becoming more standardized as evidence increases. The purpose of this paper is to provide an overview of current research-based practices in music therapy for the treatment of children with cancer. Specifically, clinical practice guidelines from the literature in the areas of (a) treatment objectives, (b) musical considerations; and (c) specific interventions will be addressed. Strategies for implementation will be summarized and charts, highlighting selected articles available in the research literature, will be provided.

Enhancing the student internship experience: Incorporating special needs students into the "folk" musical

Michelle Hairston, University of East Carolina, USA
[email: hairstonm@ecu.edu]

Linda R. High, University of East Carolina, USA
[email: highl@ecu.edu]

The current study is based upon the pilot project the researchers presented at the 2010 commission meeting in Beijing. One suggestion included the involvement of college students in the teaching process. Another recommendation was the inclusion of children with special needs, as well as, those who are developing typically as participants in the musical.

All countries have a wonderful wealth of history and folk heritage. So often today, children, especially those with special needs, are not exposed to folk heritage in any way. This presentation will focus upon the development of a children’s musical based upon folk heritage, during the student-teaching experience. Because students usually learn only how to create and sequence lessons, the researchers thought it would enhance student interns’ teaching/learning experience to work with children who are developing normally as well as those with special needs in a musical project. This project offered another unique opportunity for the children involved as it is not often that they are presented with the opportunity to create and produce their own musicals.

Programming musical performances is an important part of any music teacher’s job. Therefore, the purpose of this presentation is to describe how to teach students to

create and produce their own musicals, involving both special needs and typically developing children. Using folk tales and folk songs from a selected culture in these musicals is also a way to integrate the musical with history and culture. The researchers will (a) outline the steps necessary to begin, implement, and complete such a project; (b) describe the participation expectations of the students; (c) describe the duties of the student intern with the intern supervisors; and (d) show video clips of the final project.

The effect of presentation mode and labels on pre-service music educators' perceptions of performance by musicians with disabilities

Julia Heath, Florida State University, USA
[email: juliadheath@gmail.com]

In this study, 32 pre-service music educators evaluated six different performances of musicians with disabilities. Approximately half of the participants received written information regarding the performers' disabilities. To control for visual "labeling," the performances were presented in two modes, audio only and audio/visual. After watching or listening to the six performances, which included strong, choral, and instrumental performances, the participants rated musical aspects using evaluation forms. Results indicated a significant difference between the evaluations of the six performances. No significant differences were found between the evaluation scores for label and no label groups or the audio only, audio/visual presentation modes. A string performance received the highest mean evaluation score, while an adaptive instrumental ensemble received the lowest overall score. Music educators must have clear and realistic goals for performance-based ensembles and the participants in each ensemble, with or without disability. Future research should include an assortment of fieldwork experiences for pre-service music educators to examine a variety of musical opportunities for students with developmental disabilities.

Figurenotes – a new tool for special music education and music therapy

Markku Kaikkonen, Special Music Centre Resonaari, FINLAND [email: markku.kaikkonen@resonaari.fi]

Figurenotes is a method of notating music in a concrete way, by means of colours and shapes. By presenting the information in concrete form, people who have difficulty or are unable to understand conventional abstract notes, are provided with opportunities to make music and to join in the goal-oriented study of music. Target groups may include people with special needs, or in general, people of all ages taking their first musical steps. Figurenotes gives the same musical information as conventional notation (notes, octaves, values, rests, sharps, flats, chords). Playing is simple: the Figurenotes sticker on the instrument shows the player where to play. In other words, the player matches the Figurenotes

information with the sticker on the instrument. The player's job could thus be described as "Play what you see".

The features of Figurenotes are:

1. **Concreteness:** Figurenotes is a concrete way to show the notation. Thus, anyone can play who is capable of matching two symbols (the one in the Figurenotes and the one on the instrument sticker).

2. **Suitability:** Figurenotes is suitable for all complete beginners. It also enables people to make music who for one reason or another find it either difficult or impossible to assimilate or learn the conventional abstract notation.

3. **Correspondence:** Figurenotes can give all the same musical information as conventional notation. As a result, it is easy for players to switch to conventional notation, so long as they are capable of understanding abstract symbols.

4. **Applicability:** Figurenotes is a form of musical notation, so naturally, it can be applied in the same way as conventional notation. In other words, Figurenotes can be applied to all kinds of music-making.

The application of Figurenotes for a number of target groups has been developed in R&D projects carried out at the Special Music Centre Resonaari (Finland). The use of Figurenotes has spread internationally beyond special music education and music therapy. It has been included in early childhood music education, music teaching in schools, instrument tuition, special education and, in an even broader context, as a tool for rehabilitation and various forms of therapy. This workshop will introduce the Figurenotes and its applications. Also, the basics of curriculum for diverse learners in Resonaari Music School will be introduced. Making music should be a basic human right. Figurenotes is helping to make this true by helping to place the joy and delight of making music in reach of all.

Promoting social interactions among children with autism and general education peers through music activities

Angela H-C Lee, Transworld University, TAIWAN
[email: leehc91014@yahoo.com.tw]

This paper describes the researcher's a study examining the social interaction skills of children with autism. This study occurred within an integrated classroom in a regional daycare center. A multi-faceted exploration of the behaviors of a single subject A-B experimental design was implemented. Participants consisted of two head teachers, two children with autism, four general education peers, and six aides – all of whom attended a 40-minute integrated class program in one of the regional daycare centers. In order to collect evidence of social validation, in-depth independent interviews were conducted with two classroom teachers at the end of the intervention. The program of musical activities used in this study offered multiple opportunities for children with autism to improve their communication skills in the classroom while also acquiring musical skills. The research findings are consistent with research showing that children with autism are capable of increasing their

social interaction skills during peer play in a structured setting that is overseen by a professional.

Evaluating the effectiveness of music activities on emotions and communication for a child with autism in a multi-sensory environment

Liza Lee, Associate Professor, Chaoyang University of Technology, TAIWAN [email: lylee@cyut.edu.tw]

Hua Liu, Associate Professor, Zhejiang University, CHINA [email: chonghua2nd@gmail.com]

Music activities in multi-sensory environments have provided support and proven potential benefits for children with disabilities. Through a number of studies, the effects of music activities have been examined for children with autism and profound multiple disabilities. The purpose of the study was to explore the influence of the researcher's music teaching approach in the multi-sensory environment on a child with autism and multiple disabilities. A 3.6-year-old boy with autism and multiple disabilities was selected by purposive sampling to participate in the research. The duration was 20 weeks with 50-minute instructional sessions once per week. Both qualitative and quantitative methods were used to obtain the results. The results showed the effectiveness of music activities on emotions and communication for the participant in the multi-sensory environment. Furthermore, the participant's tactile defensiveness was improved as well through the assessment of music activities.

An exploration of the effectiveness of singing on English vocabulary learning for Chinese dyslexic pupils

YimTing Leung, Hong Kong Institute of Education, HONG KONG [email: leungytj@gmail.com]

Bo Wah Leung, Hong Kong Institute of Education, HONG KONG [email: bwleung@ied.edu.hk]

English acquisition is in high demand in a globalized society. However, learners with dyslexia often face difficulties in learning English. This study examined the impact of singing upon dyslexic Chinese pupils' English vocabulary learning, specifically on tasks involving word syllable segmentation, vocabulary pronunciation, and recognition. A purposive sample of 30 dyslexic and 30 non-dyslexic Hong Kong pupils, ages 6-10, were recruited and randomly assigned to a treatment group or control group respectively (n=15 each). Pupils in the treatment groups were introduced to English vocabulary by singing, while those in the control group were exposed to no musical activity or stimuli. Between-group and within-participant comparisons were analyzed via a Multivariate Analysis of Variance (MANOVA) and Repeated-Measure Analysis of Variance Analysis (ANOVA), respectively. Scores were also compared to non-dyslexic pupils. The implications for special education and music therapy will be discussed.

The iPad and children with autism: Two case studies

Kimberly McCord, Illinois State University, USA [email: kamccor@ilstu.edu]

Two students with autism and communication disabilities in a self-contained music class were introduced to iPads which served as both a calming and transitional tool as well as alternatives to traditional instruments that may irritate the student. Both students responded positively when the iPad was substituted for traditional instrument and when it was implemented as a calming method.

Musical accessibility – digital tools develop musical potential in young people with physical impairments

Bo Nilsson, SWEDEN [email: bo.nilsson@hkr.se]

Experiencing, performing, and creating music is considered a basic human function. In a sustainable society, citizens' participation in different kinds of cultural and musical events, not only as a consumer but also as a performer, is vital. This presentation will highlight some results from a research study performed in collaboration between researchers, music educators, and staff members within a Swedish music project. The aim of the music project was to enhance possibilities for young people with physical impairments to take part in musical activities. Digitally based musical settings were developed in the project in order to provide tools for performing and creating music.

Data was collected by the researcher, participating music educators, and other members of the staff, mainly through field notes, video observations, photographs, and conversation notes. Collected data and experiences from the project were discussed on a regular basis and analysed by members of the project. The theoretical framework of the research study included an ecocultural perspective, developed by the author, together with the Sense of Coherence framework, developed by Aaron Antonovsky.

Findings revealed that personal assistants, parents, technicians and music educators collectively facilitate the participants' musical activities. Furthermore, the digital settings should be regarded as a combination of computer software, graphical interface, physical interface (e.g. head-mouse, switches) and the musical content. Staff members and music educators involved in the project regarded active involvement in society's culture as a form of freedom of speech and expression as well as a significant part of democracy. During the project, new research questions arose, related to music, music education and health promotion. In the analysis, three variations of music educators' musical practice were identified:

- a) playing well-known songs: music-making with a stated goal to play songs, already familiar to teachers and
- b) participants and to perform these songs for an intended audience, b) Participatory music: music-

making

- c) aimed at involving the participants in music creation and c) Explorative music: music-making with the aim
- d) to inspire the participants to explore the potential of the musical instruments as well as their own potential
- e) to create music.

The identified variations should not be regarded as excluding each other as they often were based upon a unique musical situation or quality resulting from more than one practice.

An ounce of prevention is a pound of cure: A theoretical model of music therapy as an intervention promoting attachment relationships across the lifespan

Varvara Pasiali, Queens University of Charlotte, CYPRUS/USA [email: pasialiv@queens.edu]

Attachment refers to the quality of the relationships and strong bonds human form across their lifespan. Because participation in music therapy can promote positive and meaningful interactions over time, it creates a context for developing healthy relationships. In this paper, the author creates a theoretical model on how music therapy interventions may target attachment across the lifespan, drawing on insights afforded from the fields of psychology and social neuroscience. Aiming to expand theoretical underpinnings that inform the work of therapists the author explores how music-based interventions foster attachment by (a) supporting parent-child mutuality, (b) rebuilding capacity to form relationships, (c), supporting healthy interactions and alleviating problems within relationships, (d) reducing stress and mood disturbances, which may affect interactions with others, (e) enhancing communication skills, and (f) building coping skills among families and individuals who are facing life-challenging circumstances. The model describes music therapy as a proactive intervention at the universal, selective and indicated prevention levels.

Community music therapy interchange: New paths for personal and environmental changes

Dora Psaltopoulou, Aristotle University of Thessaloniki, GREECE [email: dora.ps@gmail.com]

Community Music Therapy offers people with disabilities rich experiences that facilitate meaning, identity, engagement and ultimately belonging. All can lead to significant personal, interpersonal and environmental changes in persons with disabilities that can facilitate their inclusion into society. It is very important for people with disabilities to have easy access to and to participate in multidimensional types of musical performances. This paper describes a community of young people with disabilities. The experiences of four performers with Down syndrome, autism, and Prader-Willi syndrome are described. Initially, they participated in individual music therapy sessions and when they had something to say, they

shared it with significant others. Then, they performed together with the goal of building a community.

Performance has been addressed as both a self and collaborative effort, or “unity beyond uniformity.” Music making provides a equipoise between the individual’s state of existence and those groups to which they belong. The aforementioned issue is reviewed in this paper through a systematic way of assessing clients as performers, the clinical issues they present for treatment, and how performance can address them. The latter was examined using a model of five dimensions: (1) connecting within to the music; (2) performers connecting with each other; (3) connecting to the audience; (4) The audience within; and, (5) the totality of experience.

Also addressed in this paper is a systematic way of assessing the parents’ experiences observing their children performing. The author, inspired by Jampel’s model, interviewed and recorded parents creating a questionnaire of five dimensions: (1) connecting to their child’s performance; (2) connecting to other than their child performers; (3) connecting to the audience; (4) caring for the narcissistic wound due to their children’s disability; and, (5) the totality of experience. This paper will also examine a systematic way of assessing the audience’s responses. Recorded interviews with people from the audience reveal three dimensions: (1) positive change in the audience’s perceptions about people with disabilities; (2) positive change concerning their children with or without clinically assessed disability; and, (3) inner change towards new paths for self-actualization-the totality of the experience. Finally, inclusion into society will be discussed. Through community music therapy interchange, participants are able to forge different directions in life and to be fulfilled with new meaning and energy in order to create healthier connections.

Music therapy in children with special needs: A complete therapy

Dora Psaltopoulou, Aristotle University of Thessaloniki, GREECE [email: dora.ps@gmail.com]

Music Therapy is a tridimensional therapy with three main components: science, interpersonal relationship and art. The theoretical and philosophical background of music therapy, as well as empirical research and clinical practice provide a foundation for this paper. Science consists of a series of the phenomena, the ideas born by those phenomena, and the words that express them. Thus, science is the cornerstone of music therapy. The music therapist as a part of an interpersonal relationship creates a non-threatening atmosphere for the client; thus, taking care of the client’s emotional, physical, mental and spiritual needs while abiding by the principles of any clinical psychology approach the therapist is trained in. The interpersonal relationship between therapist and client assumes a maternal-like role in music therapy practice. Music, as a form of art, promotes freedom of imagination and creativity verbally and nonverbally, and offers “possibilities unlimited” as paths for self-discovery, self-expression and self-actualization. In this sense, music plays a child-like role in music therapy.

Thus, music therapy, as a nuclear family which takes care of the client in multidimensional and unlimited ways, could be a complete therapy. Science has shown that positive and negative emotions affect the neural, immune and endocrinal systems of the human being. In clinical practice, evidence reveals that the expression of negative emotions, shared and sublimated, affect all areas of the individual positively. Thus, in music therapy, every emotion is of value and of significance; whereas, lack of emotions, positive or negative, hinders the therapeutic process.

The current research study was designed to determine the effectiveness of music therapy on people with disabilities in Greece. Participants were 149 individuals with disabilities. The purpose of this research was to assess the effectiveness of music-therapy. Music therapy effectiveness was assessed using the personal evaluations of parents' whose children were participating in Music Therapy. Results revealed that music therapy was: 1) effective regardless of the pathology of the participants; 2) most effective with participants who had severe pathology conditions; 3) effective regardless of co-practice of other therapies such as occupation therapy, speech therapy and psychotherapy. Questionnaires, answered by the participants' parents, were used as research instruments. The data were analyzed using the statistical instrument SPSS v.12 with that alpha level set at $\alpha=.05$. The research revealed also that music therapy can serve as a main therapy for the studied populations in Greece.

Coming together: Collaborative efforts towards musical inclusion

Daphne Rickson, Massey University, NEW ZEALAND
[email: Daphne.Rickson@nzsm.ac.nz]

This paper describes research in progress which aims to capture the experience of team members who are working to include disabled young people in a public performance with a professional orchestra. The event involves collaboration between a charitable organization (StarJam), academic staff from a tertiary-level music school, and a city orchestra. Taking a critical ethnographic perspective, the researcher aims to examine the barriers to participation that are potentially created by the social constructs of both disability, and Western art music. Preliminary findings suggest that philosophical and cultural differences between the groups, and practical barriers such as the limitations of traditional orchestral performance spaces, will prevent the fulfillment of the initial vision to have young people included *in* the orchestra. Nevertheless, unique opportunities for them to perform *with* the orchestra, interaction between the adults, and a research process which highlights and prompts reflection on the organizational and rehearsal procedure, will contribute to the development of new perspectives and potentially increase possibilities for future inclusive endeavours.

Adapting musical experiences for children with cerebral palsy: Dialogues between music therapy and special education

Patricia Leonor Sabbatella, University of Cadiz, SPAIN [email: laboratorio.musicoterapia@uca.es]

Music therapy can support special education teachers by providing effective ways to incorporate music into the academic curriculum. Music therapy interventions can be used specifically to achieve musical and non-musical goals with implications for the overall development of children who have cerebral palsy. This paper describes a music therapy project developed specifically for a Special Education School accommodating pre-school children with cerebral palsy, ages 3-6. The purpose of this project was to integrate music therapy into the special education curriculum of the school in order to develop music therapy approaches and strategies for children with cerebral palsy. The results described herein reveal the contributions to special education curriculum adapted for this population. This presentation will benefit music educators, music therapists, and researchers working with individuals who have cerebral palsy.

Developing music literacy skills for children with autism

Maritza M. Sadowsky, Arlington Public Schools
Jamestown Elementary, USA/BRAZIL
[email: doctorm@verizon.net]

The purpose of this workshop is to share music lesson plans created and/or adapted from several different music curricula, websites, and books, with music teachers who teach autistic children with severe developmental disabilities in grades K-5. There are few sources in which one can find information to create and/or adapt music lesson plans for children with severe autism. Many general music teachers have not had special education training requirements as part of their music education curriculum. This workshop will feature many musical activities that can be used by music teachers who are not trained as music therapists but who find themselves in the position of teaching children with severe autism. The intent is to share music lesson plans in order to provide children who suffer from severe autism disorder with opportunities for music making. I have organized the materials for this workshop as follows: (a) a power point presentation as a guide; (b) an overview of the music lesson plans format relevant to music concepts; (c) a chart including the titles of materials and activities in the lesson plans classified under different categories according to the lesson plan format and to the Strategies for Teaching Based on Autism Research Program (STAR); and, (d) a video of students' performance in class. Participants will be asked to join in a circle and participate in some music activities and will receive a booklet with several music lesson plans used by myself. In conclusion, providing musical activities at the curriculum grade level, children with severe autism in an inclusive classroom demonstrate the

same grade level understanding of musical concepts as non-autistic children. It is my hope that this workshop will help other music teachers to improve their skills in adapting specific strategies to enhance their music lesson plans for children with severe autism.

The assessment of the quality of relationship by people with severe disabilities in a music educational setting

Shirley Salmon, Mozarteum University Salzburg, AUSTRIA [email: shirley.salmon@moz.ac.at]

The AQR-Instrument (Assessment of the Quality of Relationship), an instrument to observe and assess the quality of relationship based on developmental-psychological knowledge, was developed for use in music therapy with children with profound developmental disorders (Schumacher/Calvet 2001, 2005, 2007). The AQR-Instrument consists of four scales that focus on differing phenomena of expression: instrumental expression, vocal pre-speech expression, physical-emotional expression, the therapist and his/her interventions. Within each scale, seven modi are used to assess the quality of the inter-personal relationship and give important indications for methodical approaches. The research presented here, the first to apply the AQR-Instrument in a music education setting, assesses the ability of three group members (adults with severe disabilities) to form relationships according to the handling of instruments. The researcher sought to (a) determine the ability of the participants to take part in group sessions; and, (b) examine the methods used by the teacher in particular whether they were appropriate for the participants. This study has important implications for music education. Examples showing the modi based on the recorded and analysed scenes of the three participants will be shown on DVD. The paper includes information and DVD examples about the setting and the didactical considerations for the musical-education work with this group of adults with severe disabilities and finishes with thoughts and implications for future work.

The development of a cochlear implant music training program

Lyn E. Schraer-Joiner, Kean University, Union, NJ, USA [email: lschraer@kean.edu]

Alan Gertner, Kean University, Union, NJ, USA [email: agertner@kean.edu]

Carol Goodman, Kean University, Union, NJ, USA [email: cgoodman@kean.edu]

Florence Arking, Kean University, Union, NJ, USA

Rachel Beleski, Kean University, Union, NJ, USA

Carolyn Mullay, Kean University, Union, NJ, USA

Researchers have suggested that pre and postlingually deafened adults may benefit from intensive aural rehabilitation programs emphasizing auditory training as

well as strategies necessary to enhance understanding. However, access to such services is limited as a result of inadequate reimbursement by public insurance providers. Furthermore, questions regarding the impact of structured training protocols on pre or postlingual implant users' music and speech perception abound. This paper will first describe the researchers' initial study (PHASE I) examining music and speech perception of adult cochlear implant users as well as the resulting web-based music training protocol. PHASE I of this study examined music and speech perception skills of adult cochlear implant (CI) users. The researchers found that prelingual CI users' scores on the Primary Measures of Music Audiation (PMMA) were lower than postlingual CI users' scores (Alpha level = .005). An analysis of the pitch discrimination measures of the Clinical Assessment of Music Perception (CAMP) revealed no significant differences between pre and postlingual participants' scores at either 262 or 330HZ. Prelingual CI user responses' at 391HZ were significantly lower than postlingual CI users (alpha level = .05), however. Also, no significant differences were found between pre and postlingual CI users' CAMP melody recognition scores, however, timbre subtest scores were significantly lower for prelingual CI users (alpha level = .05). Also revealed was that test scores were lower for participants implanted at a later age. Speech perception data revealed wide individual variations. The data is consistent with previous reports of phonemic and individual word perception being more difficult to perceive than environmental sounds and temporal aspects of speech. Speech perception measures mirrored those of music perception, finding that post-lingually implanted adults performed worse than those who had been pre-lingually implanted. Findings from PHASE I resulted in the development of a web-based training protocol which includes separate training tracks for the pre and postlingual deafened CI recipient (to be piloted in Fall 2012). An overview of the follow-up study (PHASE II) investigating the impact of three types of music training (web-based, in-person, mixed) will also be provided. Such research may provide music therapists, speech language pathologists, and audiologists with a habilitative/ rehabilitative starting point for incorporating music listening into their clients' therapy protocols.

Microanalysis and graphic notation in music therapy research: A case study

Giorgos Tsiris, Nordoff Robbins, The City University London, ENGLAND [email: giorgos.tsiris@gmail.com]

Microanalysis, as a detailed method for investigating micro-processes in music therapy, has been widely used in a range of contexts and with different client populations. It offers significant possibilities not only in research, but also in clinical practice, by enhancing our ability to critically analyse and understand the micro-changes and processes that take place in music therapy. However, finding appropriate ways and tools for conducting and representing such microanalytic procedures is often challenging. This presentation will illustrate how graphic notation, as a way of notating

musical and extra-musical aspects of interaction between therapist and client, can be used as a method for analysis and representation in microanalytic research designs. The aim of this presentation is to provide a practical example of how microanalysis can be combined with graphic notation in music therapy research, as a way of in-depth exploration and visual representation of the micro-processes under examination. This combined method is illustrated through a case study of improvisational (music-centred) music therapy with a boy with autism.

This microanalytic case study is based on phenomenological principles, where multi-layered analyses of a short video exemplar are performed. The analysis focuses on the client's outer mobility (i.e., musical and bodily engagement) in relation to the collaborative, improvisatory music-making with the therapist. The microanalytic process takes place in four main phases: i) short description of video exemplar; ii) microanalytic graphic notation of improvisation with focus on client's outer mobility; iii) segmentation and 'thick' description of the micro-processes under examination; and, iv) identification of pivotal moments. The construction of meaning emerges through interactional analysis and draws on Nordoff-Robbins's principles of 'gentle empiricism.'

This case study demonstrates how the combined use of microanalysis and graphic notation can enable an in-depth exploration of the micro-processes that take place in improvisational music therapy. It shows how this combined method facilitates a detailed observation and study of clients' outer musical mobility (e.g., flexibility in tempo and dynamics), as well as its potential connection with the development of their inner mobility (e.g., development of social skills, and self-actualisation) in music therapy.

Further prospects regarding the combined use of microanalysis and graphic notation, and their potential for widening not only our research endeavours, but also our clinical practices are discussed; suggesting the contribution of such methods in promoting a healthy balance between evidence-based practice and practice-based evidence in music therapy.

Singing together: Promoting social engagement for young children with autism

Potheini Vaiouli, Indiana University Bloomington, USA
[email: pvaiouli@indiana.edu]

Joint attention is defined as an individual's visually coordinated attention to an event or an object with another individual, sharing engagement, and showing an understanding that the partner is sharing the same interest (Schertz & Odom, 2004). As joint attention develops, it sets the groundwork for understanding others' behaviors and enables interpersonal engagement and shared attention with a communicative partner for social purposes (Wetherby, Prizant, & Schuler, 2000). Although joint attention is an important milestone in typical development, it constitutes a core difficulty for young children with autism, affecting their ability to interact with others in social circumstances, to process

social information, and to establish and sustain relationships with others (White, Keoning, & Scahill, 2006; Bellini 2007). Because of its critical role in social engagement and social-communicative development, joint attention is an important target for intervention in children with autism (Volkmar, Chawarska, & Klin, 2005). Recent studies in music therapy have revealed that a child-centered approach in improvised music therapy interventions can increase joint attention and facilitate social engagement in children with autism (Kim, Wigram, & Gold, 2008; Wigram & Gold, 2006; Trevarthen & Aitken, 2001). The purpose of the current study was to determine the effectiveness of improvisational music therapy in promoting joint attention for three kindergarten children diagnosed with autism. A mixed method design (single subject case study with qualitative analysis) was implemented; child centered, age-appropriate, developmental principles were incorporated into a music therapy intervention that followed a three-phase sequence to promote eye contact, response to joint intervention and initiation of joint attention. A multiple baseline design showed children's performance in the classroom once a week. The research hypothesis was that the students who were having individualized improvisational music therapy sessions would show an increased incidence of eye contact, response to interaction when prompted by the teachers and initiation of interaction for social purposes. Also, a complementary qualitative analysis explored variables that may have influenced the outcomes, as well as the perceptions of the participants' parents and teachers, regarding the music therapy intervention. With regard to the efficacy of the intervention, the overall results of the study were encouraging, as they showed that improvisational music therapy creates preconditions for joint attention, reciprocal engagement, and interpersonal responsiveness. In the future, more research with larger samples is needed to strengthen the conclusions on the importance of music therapy interventions in promoting social engagement for young children with autism.

Music educators' perceived effectiveness of inclusion

Kimberly VanWeelden, Florida State University, USA
[email: kvanweelden@fsu.edu]

Jennifer Whipple, Charleston Southern University, USA
[email: jwhipple@csuniv.edu]

This study examined whether music teachers' perceptions of effectiveness of inclusion, curricular adaptations/modifications, or student achievement had altered from that of previous research findings 20 years ago. Music educators ($N = 1194$) representing all 50 United States responded to a survey fashioned after a similar instrument used by Gfeller, Darrow, and Hedden (1990). Results indicate positive increases over the past 20 years in which teachers generally felt the students were successfully integrated, their music needs were being met, and they did not hinder the progress of typically developing peers. Additionally, teachers felt comfortable adapting and/or modifying their regular curriculum to meet the needs of students with special

needs and reported these students were graded on the same standards of musical achievement. Further results and educational implications are discussed.

Music educators' perceptions of preparation and supports available for inclusion

Kimberly VanWeelden, Florida State University, USA
[email: kvanweelden@fsu.edu]

Jennifer Whipple, Charleston Southern University, USA
[email: jwhipple@csuniv.edu]

This study examined whether music teachers' perceptions of their educational preparation and availability of instructional supports had altered from that of previous research findings 20 years ago. Music educators ($N = 1128$) representing all 50 United States responded to a survey fashioned after a similar instrument used by Gfeller, Darrow, and Hedden (1990). Results indicated slight positive increases over the past two decades in regard to types of course offerings, in-service attendance and availability, involvement in the IEP process, placement decisions, consultation with special education experts, and provision of adequate preparation time and resource materials/adaptive devices. Results also revealed that current music education practices, (e.g., music specific coursework, workshops, and in-services) created greater feelings of preparedness to work with students with special needs and increased attendance at additional educational opportunities. Further results and educational implications are discussed.

Expressing yourself: Community building through art and music

Victoria Vega, Loyola University, USA
[email: vpvega@loyno.edu]

Often, words fail when we most need to express our innermost feelings. *Express Yourself Through the Arts* was a course designed to expose student to the healing potentials of the arts. Projects that combined art and music interactions that were used with undergraduate and graduate college students. The projects provided a venue to enhance life experiences, increase self expression, promote socialization, and self-exploration through art and music. Students worked cooperatively to complete each project's objectives. Some projects included home murals, poem and story creation and illustration, and musical life reviews. Students were also exposed to art galleries, and music, theatre, and dance performances. Each project began with a focal point, creative process, and closure. Students later reflectively wrote about their experiences within the creative process through journaling. They answered focus questions after each completed project and were asked to expand on their individual experiences. These entries consisted of written and visual responses on all creative projects. Themes that emerged were; working cooperatively with others, feelings of frustration and uncertainty, working through barriers to find a more clear life direction, and

finding a greater understanding of self and others.

Effects of age level and gender on emotional response to musical and visual stimuli by two-dimensional mood scale

Wei-Chun Wang, National Taiwan University of Science and Technology, TAIWAN
[email: vgnwang@hotmail.com]

Music has the marvelous power to arouse different moods and emotions that often deeply affect the development of the listener's brain, body, and feelings. With joining music with visuals, a multisensory experience can be constructed. Several recent multisensory studies have revealed the influence of aural perception on visual processing. This study was conducted to survey the effects of age level and gender on (a) emotional responses when experiencing music and videos; (b) to investigate the influence of music on visual perceptions; and, (c) to explore the relationship between musical elements and emotional responses.

Fourteen stimuli in combinations of two silent videos and four musical excerpts were used. These were evaluated by 35 seniors (6 males and 29 females) and 55 undergraduate students (12 males and 43 females). They rated their two-dimensional mood, happy-sad and calm-arousal, on five-point Likert scales and described the images evoked by or in association with the stimuli. Video 1 was about a departing train. Video 2 consisted of nature scenes. Music 1 and 2 were incidental music. The former, faster "Clear sky" was in rock style and the latter, slower "Feel the wind" was in new age style. Music 3 was the beginning of Vivaldi's 1st movement of Spring from "Four Seasons." Music 4 was the theme of the 2nd movement from Dvorak's Symphony "New World."

Emotional responses to the stimuli varied. For example, when both music and video were presented, the former dominated. The calm emotions of the videos were overwhelmed by either the strong rhythmic patterns or fast passages in Music 1 and 3. The combination of either of the videos with music 4 was rated much sadder than solely presented with either the video or the music. Verbal comments revealed an association with homesickness. The departing train on Video 1 could be interpreted as sentimental separation or a happy trip depending on the characteristics of the music. Age or gender effect can be found in some combinations of videos and musical excerpts, in particular for happy-sad scale. For the calmer stimuli, the seniors felt happier than the undergraduate students. This might be attributed to the seniors' rich life experiences and their participating in a choir. Findings provide support for music educators, psychological counselors, and musical therapists who work with older populations.

The effect of expressive and instrumental touch on the behavior states of individuals with severe and profound intellectual and multiple disabilities

Yen-Hsuan Yang, Florida State University,
TAIWAN/USA [email: yhyang1111@gmail.com]

The purpose of the study was to examine the effect of music therapy interventions utilizing two types of touch—expressive touch and instrumental touch—on the behavior states of individuals with severe and profound intellectual and multiple disabilities. A secondary purpose of the study was to examine therapist-client rapport when expressive and instrumental touches were used during music therapy sessions. A within-subject design was used with 15 participants receiving three sessions in each of the experimental conditions: no touch, expressive touch, and instrumental touch. All sessions were videotaped for analysis to: (1) measure and code the time participants spent in preferred alert behavior states according to the behavior state coding system (Guess et al., 1988), and (2) rate the music therapist's perceived client rapport. Results of a oneway ANOVA indicated that expressive touch and instrumental touch were significantly more effective than the baseline condition in eliciting and maintaining participants' preferred alert behavior states. In addition, independent observers' rapport ratings revealed the therapist's client rapport was perceived to be significantly higher during the expressive and instrumental touch conditions than during the control condition. These findings have important implications regarding the use of nonverbal forms of communication in music therapy practice with individuals who have severe and profound intellectual and multiple disabilities.

Songs of young deaf children using cochlear implants: From mimesis to invention

Maria Yennari, Cyprus Ministry of Education and Culture, CYPRUS [email: myennari@hotmail.com]

This paper describes and analyses the spontaneous singing inventions of deaf children, ages 3.5 to 4.5 years, in preschool settings in Cyprus. The paper focuses on two dimensions of deaf children's singing activity: a) children's improvised singing happening during music sessions, and b) all spontaneous vocalisation taking place in other situations (indoor and outdoor play and class circle time). Apart from documenting deaf children's singing the study aims to identify the conditions that stimulate both imitation of song and improvised singing in the children and offer pedagogical insights for practice. The participants were five congenital prelingually deafened children with profound hearing loss who attended the School for the Deaf in Nicosia, Cyprus. The children were also mainstreamed into the community nursery that shares lodgings with the School for the Deaf. The children (three boys and two girls) were all implanted with the cochlear prosthesis between the ages of 10-12 months. The children participated in 30

minute music sessions twice weekly over a period of seven months. Sessions included a variety of musical activities some of which were designed to promote creative vocal activity and song. The sessions were video-recorded using a static camera in order to maintain contextual detail. Seven recordings of individual children were planned at the end of each calendar month in order to analyse their vocalisations longitudinally. The researcher was interested in investigating aspects of the children's lives playfully interwoven into the sessions in playful ways (play scenarios) as well as those objects which might be effective stimuli for song inventions. Singing episodes were analysed contextually (emphasis on process) and songs (invented and/or imitated) were analysed as 'objects' (emphasis on product). Data is supported by researcher's field notes and interviews with the parents and the children's mainstream class teachers.

A world through sound: The musical experiences of a child with multiple disabilities in an early childhood music class

Gina Yi, KOREA/USA [email: ginayi@hotmail.com]

With the intent of improving early childhood music education for children with disabilities, the purpose of this case study was to explore the musical experiences of a child with multiple disabilities, specifically cortical visual impairment (CVI) and cerebral palsy (CP), in an early childhood music class. I observed the child in a class for children aged birth to three years, for four weeks of a 10-week program. The researcher also interviewed the teacher and the child's mother. Analysis of data revealed three main themes encompassing the musical experience of a child: engaging experience, exploratory experience and non-participatory experience. Additional emerging themes were awareness of mother, teacher adaptation, and role of caregiver. Certain facial expressions, vocal responses, and behaviors of the child were observed consistently during four-week observations and were identified and served as cues that she was responding musically. Due to the child's disabilities, she participated less in structured movement activities and activities with percussion manipulatives than other children in the class. However, she was "attuned" musically, giving random and purposeful vocal responses to music. Active participation of a caregiver and teacher's awareness of child's disabilities also was important factors that enhanced the child's participation in class.