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An investigation into the psychological, social and personal benefits of creative drama for learning able and learning disabled adults

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ABSTRACT

Creative drama is suggested to provide an opportunity for learning of social and expressive skills and development of confidence for learning disabled adults who often show deficits in these abilities (Snow, Amico & Tanguay, 2003). However, direct empirical evidence is limited (Jindal-Snape & Vettraino, 2007). Therefore ten weeks of in-drama session observations of 6 actors (3 with LD's, 3 without LD's) utilising one-zero time sampling were conducted to test the hypotheses that improvements in social skill application (such as Asking for Help, Aiding Others, Active Participation), decreases of counterproductive strategies (Disruptive and Withdrawn behaviour) and developments in confidence would occur. Furthermore, pre- and post- parent and peer survey interviews were conducted to assess behavioural and emotional expressivity changes outside of the drama environment. Results supported the hypotheses; all actors showed positive increases in Positive Interaction, Constructive and Confident behaviours, and a decrease in the application of Withdrawn and Disruptive behaviours, although group and individual analyses showed variations in behavioural distributions. Furthermore, interview data implied that learnt behaviours were generalised to a wider social context. However, reliability and validity of results is questionable, and further research into the effectiveness of specific dramatic activities as facilitative tools for specific LD's and longevity of intervention gains is needed for a more comprehensive understanding of the psychological, social and personal benefits of creative drama.

KEY WORDS:	CREATIVE DRAMA	LEARNING DISABILITIES	SOCIAL AND EXPRESSIVE SKILLS	SELF-CONFIDENCE	OBSERVATION

Introduction

Learning disabled (LD) individuals often present varying deficits in linguistic, cognitive, social and expressive skills necessary for social interaction (Caldwell, Brinko, Krenz & Townsend, 2008), and are therefore more likely to have deprived relationships, low self-confidence, behavioural deficiencies and social adaptation difficulties (Riggio, Throckmorton & DePaola, 1990; Peter, 2000). They are consequently suggested to be one of the most stigmatized and excluded groups in Western society (Ramcharan, Roberts, Grant & Borland, 1997). However, creative drama, the imaginative and playful exploration of emotions and skills through activities encouraging dramatic expression, such as role-play and improvisation (Jones, 1996), is theorised to provide a potentially effective opportunity for didactic learning of social and expressive skills, facilitation of psychological well-being and development of a wealth of self-related constructs for individuals with LD's (Snow, Amico & Tanguay, 2003), ultimately encouraging a better quality of life (Widdows, 1996). Although many researchers and practitioners have advocated and employed creative drama as a psychotherapeutic technique and learning tool for people with disabilities (Reynolds, 2002; Peter, 2000), research investigating its benefits is limited compared to other forms of expressive experiences, such as music and art (Jindal-Snape & Vettraino, 2007). Therefore there is an urgent need to investigate the psychological, social and personal advantages of participating in creative drama to demonstrate its importance for the health and social welfare of LD individuals, and justify its effectiveness as an intervention programme (Conroy, 2009).

Creative Drama, Disruptive Behaviours and Confidence Development

Developmental researchers have provided consistent evidence to suggest the efficacy of dramatic-symbolic play, the basis of creative drama (Mann, 1996), for the cognitive, emotional and social development of preschool and latency-age children (Walsh, Kosidoy & Swanson, 1991; Price & Barron, 1999). Although evidence suggests that learning through dramatic play has limited potential for individuals with severe and complex LD's due to their lack of symbolic understanding and propensity to struggle with the central concept of make-believe (Peter, 2000), Elksnin and Elksnin (1998) advocate that drama holds no physical or mental barriers and therefore having a disability does not preclude successful involvement in activities (Widdows, 1996; Reynolds, 2002). Particularly, it is theorised that counterproductive learning strategies and disruptive behaviours, frequently employed by individuals with LD's to avoid engagement in learning due to low self-confidence (Miller, Rynders & Schleien, 1993), are diminished in drama environments due to its inherently motivational nature and lack of pressure to acquire certain regimented skills (Määttä, Tervo-Määttä, Taanila, Kaski, & Livanainen, 2006). Furthermore, dramatic activities can be an excellent way of boosting self-efficacy and confidence in LD individuals as it provides them with a sense of mastery, freedom to explore previously unrevealed skills (Schnapp & Olsen, 2003), exposure to vicarious learning (Mitchell, 1994; Mason, Steedly, & Thormann, 2005) and utilisation of the group as a form of psychotherapy (Emunah & Johnson, 1983), theorised to lead to acquisition of a greater range of social abilities and confidence in their application in everyday life (Lackaye, 2006). Therefore, creative drama has '*some legitimate promise*' (Walsh *et al.,* 1991; p163) for being an effective learning practice for an LD population.

In their investigation into a 3 year multi-modal creative drama programme for young adults with LD's, Snow *et al* (2003) suggested that a recurrent theme inherent in actors' post-programme interviews was that the play process led to them feeling proud of what they had achieved, increasing confidence that they could accomplish

more than they thought they could. It was concluded that improved psychological values included development of self-confidence, an increased sense of responsibility and freedom, and less employment of counter-productive learning strategies, all gained through encouragement from the group and the ability to develop character roles in activities. However, data was collected via actor interviews, potentially problematic due to the limited linguistic and cognitive capacities associated with LD's, meaning reliability and validity is questionable (Jindal-Snape & Vettraino, 2007). Also, generalisability of positive improvements to other social situations was not addressed, leaving crucial application of benefits unexplored (Walsh *et al,* 1991).

Encouraging Creative and Emotional Expression

Creative drama activities, such as role-play and improvisation, not only provide opportunities for confidence development and employment of pro-active engagement strategies, but also facilitate communication, particularly about emotions, a skill which many individuals with LD's often struggle with (Mitchell, 1994; Sorsi & Nota, 2000). Goldstein (2009) advocates that actors must have an understanding and ability to express many emotions for different character and situational portrayals, both verbally and through non-verbal channels of expression, and therefore many activities are centred around exploring and developing understanding and expression of emotions. The processes involved in these activities, such as choosing an emotion and suggesting adequate ways to portray them on stage, are similar to computer training methodologies shown to improve understanding and recognition of emotions in autistic individuals, such as 'Emotion Trainer' (Silver & Oakes, 2001), whereby pictures of different facial expressions are shown alongside different pictorial situations and individuals are asked to decide whether the situation would make a person angry, sad, happy etc., and which facial expression depicts the emotion.

Research into learning able semi-professional and amateur actors has concluded that emotional expressiveness was clearly related to acting ability, with semi-professional actors scoring significantly higher than individuals with no previous drama training on Emotional Expressivity subscales (Banks & Kenner, 1997). Although a fundamental feature of dramatic activities, and one that can be explored even when participants have ineffective linguistic abilities (Walsh *et al.,* 1991), research into improvement of repertoires of emotional expression and learning how to express different emotions in socially acceptable ways for a disabled population has been neglected (Mitchell, 1994). It can, however be hypothesised from research into learning able actors that through creative drama LD individuals can discover new ways of expressing emotions and, via uncritical feedback from the group, improve in expressing emotions in socially acceptable ways.

Creative Drama and Social Skills Training

Limitations in social and expressive skills are a central characteristic in the definition of many LD's (De Bildt, Serra, Luteijn, Kraijer, Sytema & Minderaa, 2005). Psychologists have, however, primarily focused on the verbal benefits of drama, demonstrating that the techniques of perspective taking, elaboration of script and vocal rehearsal can improve communication, comprehension, and memory skills of disabled and non-disabled children (Noice & Noice, 1997; Goldstein, 2009). Although these skills are essential, drama holds further potential for effective facilitation of social and psychological growth (Wishart, 2001). Learning paradigms that inform social skills training (SST) programs bear significant resemblance to the processes informing creative drama (Henry, 2000; McArdle, Moseley, Quibell, Johnson, Allen,

Hammal, & leCouteur, 2002). These cognitive models suggest that social skill improvement, including demonstration of a range of effective social responses, ability to select the most appropriate response, and aptitude to use feedback to change behaviour, occurs through four cognitive process; response acquisition, response practice, response shaping and cognitive restructuring (Eisler & Frederiksen, 1980), which Freeman, Sullivan and Fulton (2003) advocate are inherently promoted through creative drama as activities are based on the similar learning principles of instruction, modelling, rehearsal, and reinforcement (Banks & Kenner, 1997). Response acquisition is promoted vicariously through observation and modelling of others' portrayal of appropriate social behaviours in role-play and group situations (Mages, 2006), with teacher instructions establishing the norms of behaviour (Spence, 2003), and rehearsal of acquired responses occurring through further role-play and improvisation activities (Bowman, 2007). Reinforcement via feedback and encouragement from the group leads to response shaping, which ultimately creates an understanding and retention of appropriate social skills and increased confidence in applying them in different settings (McLennan & Smith, 2007; Riggio *et al.*, 1990).

In-keeping with theorising, measures of social and expressive skills have shown to be high in adult learning able actors (Banks & Kenner, 1997). Furthermore, pre- and post-test investigations into the benefits of creative drama for people with LD's have reported significant gains in social, linguistic and other measurable skills for 6 to 11 year olds after a 12-week program (De la Cruz, Lian & Morreau, 1998), with observational research reporting increases in pro-social behaviours and attitudes for adolescents with and without LD's (Walsh *et al.,* 1991; Widdows, 1996), and a reduction in disruptive behaviours and increase in self-concept when utilized in educational settings (Freeman *et al.,* 2003). Therefore there are indications that creative drama has the potential to be effective in enhancing social-emotional development of people with LD's.

Limitations and Conceptual Gaps in Previous Research

Research investigating the benefits of participating in drama for an LD population is however limited. A literature review from 1990-2005 revealed only 67 papers concerning drama and LD's, only 5% of which dealt with empirical evidence for its effectiveness in terms of improvements in inter- and intra-personal social skills, disruptive behaviour, self-concept and self-confidence (Jindal-Snape & Vettraino, 2007). Conversely, no research explored the benefits for an adult population (16+ years), instead focusing on children or adolescents in educational settings. However, an adult population needs to be targeted as poor social and expressive skills, lack of positive peer networks and diminished self-confidence can lead to complete social isolation and inadequate psychological health (Mitchell, 1999). Furthermore, although research has implied that social skills are generalised outside the drama setting (De la Cruz *et al.,* 1998; Widdows, 1996), in-keeping with practitioner proposals that engagement in drama can lead to long-term learning performance (Slade, 1998; Peter, 2000), formal data has not been collected. It is therefore unknown whether the observed effects on social and expressive skills, confidence and disruptive behaviour were limited to the drama environment only or whether changes in behaviour and attitude were observed in a wider social context by individuals from the actors immediate environments (Walsh *et al,* 1991; Jindal-Snape & Vettraino, 2007). Additionally, there is no evidence of investigations employing individual analyses to explore the benefits of creative drama, instead giving results for groups as a whole. However, an individual based approach is crucial to examining the effectiveness of creative drama, as what works for one may not work for all (Jindal-Snape &

Vettraino, 2007). Therefore, although results are promising they are by no means conclusive thus raising questions about whether it is ethical to engage people in interventions lacking an evidence base (Conroy, 2009).

This proposed investigation will therefore explore the psychological, personal and social benefits of participating in a community-based creative drama company for an adult population (age 16+) with LD's, and a control group of learning able actors. Within drama session observations to directly assess behavioural changes, and survey interview measures with parents and peers to assess generalisability of possible improvements to other social environments outside of the drama setting, will be conducted. An individual-based qualitative and quantitative approach will be utilised due to the complex and varying individual differences present between the LD actors. The variables of interest include use of appropriate social skill, confidence related behaviours and attitudes, disruptive behaviours and emotional expressiveness. It is hypothesized, based on previous research, that there will be an overall observable increase of behaviour relating to confidence, interpersonal social skills and emotional expressivity and a decrease of disruptive and withdrawn behaviours both within the drama sessions and outside of the drama group, particularly for actors with LD's, although with varying effects depending on the type and severity of learning difficulty.

Method

Ethical Considerations

Due to the nature of the research, pseudonyms and strict confidentiality measures have been employed to retain participant anonymity. Agreement to conduct the study was obtained from the founder of Theatre Company X after reading the research proposal, and informed written consent from parents, peers and NLD actors (see Appendix A) and verbally informed written assent from DS actors (see Appendix B) was obtained prior to the research. All participants have read and agreed to the information presented in this report.

Participants

Six actors were the focus of observations; three actors with Down's syndrome (DS actors), 1 female (Jill), and 2 male (Jack and John), each with varying communication, social and cognitive LD's (mean age=23, SD=4.16), and 3 female actors (Sarah, Sue and Steph) presenting no LD's (NLD actors; mean age=18, SD=.58). Case profiles of actors are presented in Appendix C. Parents of the DS actors and peers of the NLD actors participated in survey interviews, as they represent people from the actors' immediate environments and therefore the most likely to observe changes, if any, outside of the drama setting. Participants were of a volunteer opportunity sample with all actors being members of Theatre Company X, Winchester.

Observation Setting: Theatre Company X

Community-based Theatre Company X was formed in 2005 with a purpose to create a safe, stimulating and fun environment for adult able and learning disabled actors, above the age of 16, to achieve their social, personal and theatrical potentials. Currently they have a cast of approximately 30 actors with differing learning and physical disabilities, and 4 learning able actors, who perform 2 public productions per year. Drama sessions occur on Monday nights, 6:45pm to 9pm,

which are run by a professional Art Director and other facilitators with varied training in creative disciplines. During the 10 weeks of observations the sessions were characterised by a mixture of cooperative and competitive games, exploration of self-expression through controlled physical activities, improvisation and role-play, and utilisation of this material to create dramas enacted by the group for the group (see Appendix D for examples of activities implemented). Within the observation period actors were not explicitly working towards a public performance, although cast lists for the next performance (June 2010) were produced at the end of Week 10.

Pilot Study

Six, 5-minute focal observations were conducted to refine the initial coding scheme and assess an appropriate sampling method; two implementing event sampling; two, one-zero sampling of 15-s intervals and two of 10-s intervals. Missed behaviour was evident with event sampling without video recording and 15-s intervals proved a poor indicator of actual frequency of behaviour. Ten-second intervals proved more reflective of actual frequency. However, coding behaviour plus additional notes concerning environmental factors meant some behaviour was overlooked when recording. Therefore discontinuous one-zero sampling with 10-sec intervals was chosen as the systematic sampling method.

Design

The investigation employed a semi-longitudinal quasi-intervention design consisting of 10 weeks of naturalistic focal observations in the Monday Theatre Company X sessions, and pre- and post-observation semi-structured survey interview measures from two sample points to assess generalisation of acquired skills. Due to considerable individual differences between the actors with and without LD's, and the type of LD, an idiographic approach was employed in data collection and analysis, alongside analyses of observation results irrespective of type of actor, and analysis of between group differences, so as to assess benefits at group and individual levels. Naturalistic observations were conducted with the actors to record appropriate social skills, confidence and disruptive behaviours, utilising a discontinuous one-zero time sampling method of 10-s intervals over a 10-minute period per actor. Survey interviews were conducted with parents of the DS actors and peers of the NLD actors to gather indirect secondary observations of attitude, social and behaviour changes. Interviews were planned to be conducted at 3 sample points (pre-, mid- and post-observation), though due to unforeseen circumstances only pre- and post-observation interviews were conducted. However, such data collection is prominent in previous research into dramas' benefits (De la Cruz *et al.,* 1998; Snow *et al.,* 2003) and therefore in-keeping with previous methodologies.

Materials

The 'Social and Activity Behaviour' Coding Scheme: Causal observations illustrated that micro-level aspects of social skills, such as eye gaze and proximity (Spence, 2003), were problematic to observe due to quick succession of occurrences. As video recording was not feasible, macro-level behaviours, such as asking for help and giving assistance, were therefore focused on as coding categories. The mutually exclusive and exhaustive 'Social and Activity Behaviour' coding scheme (SAB; see Appendix E), consisting of 5 categories related to general classes of behaviour; two related to Social Behaviours (*Positive* and *Negative)*, and three to Activity Behaviours (*Constructive*, *Disruptive* and *Withdrawn*), was created and implemented. Specific codes within these categories included '*Positive Contact*',

'*Act-Up*', '*Active Participation*' and '*Other'*, with several indicative of confident behaviour (*Initiation of Positive Interaction, Asking for Help, Aiding Others,* and *Volunteering for Activities*). Codes were created based on previous coding schemes used in play environments, such as 'Acting Together' (Miller, Rynders & Schleien, 1993) and 'the Individual Child Engagement Record' (ICER; Kishida & Kemp, 2006). Behaviours were recorded on a behavioural check-sheet (see Appendix F) with an audio recording of 10-s beeps used to indicate interval lengths. Concordance of SAB coding between two observers was above acceptable levels of inter-rater reliability (Cohen's Kappa= .89; see Appendix G).

Emotional expressivity was not included in the SAB as DS individuals are suggested to show fewer prototypical positive and negative facial expressions compared to controls (Smith & Dodson, 1996). These expressive differences could confuse interpretations of emotional responses for untrained observers, thus lowering construct validity and reliability.

Survey Interview Questions: The survey included questions relating to confidence (*How often does your son/daughter/friend need reassurance in their abilities?*), social competence and emotional expressivity (*Is it difficult for others to know when (name) is sad or depressed?*), and included vignettes, hypothetical situations and open and closed questions (see Appendix H). Response formats consisted of likert scale ratings, multiple choice selections and open ended answers with que-cards presented to participants for easy review of the selection choices. The questions were modified from previous pre- and post-test interviews used in research investigating the benefits of interventions (Sorsi & Nota, 2000; McLennan & Smith, 2007). Interview probes and extended questions were also used where necessary (see Appendix I).

Procedure

Parents of all actors with LD's were sent letters via Theatre Company X on behalf of the researcher, and NLD actors were contacted directly to enquire interest in participation (see Appendix J). Informed consent and assent (in the case of DS actors) was subsequently obtained from interested participants. Upon consent NLD actors nominated a peer who was contacted and asked to participate, with written consent gained upon first interview. Participants were informed of the strict confidentiality and anonymity measures and right to withdraw at any point. A full written debrief was distributed at the end of the research including researchers contact details for any questions or problems (see Appendix K).

Observation Procedure: Each actor was observed for ten minute sample periods each week in a randomised order so as to observe behaviour in a variety of different activities and at different times throughout the 2 hours drama sessions. A recorded music track emitting a 'beep' every 10-s allowed for standardized recording within and across observations. During observations the focal actor was observed for 10-s and the proceeding interval was used to record the occurrence or non-occurrence of behaviour and any additional interaction or environmental information (who the actor was talking to, what activity he/she was participating in etc.) via a behavioural check-sheet.

Interview Procedure: Interviews were conducted at two sample points, in various locations at the convenience of the parent(s) or peer, with interviews lasting no more than 30 minutes. All questions were read in a systematic order, with additional questions being asked where necessary. Pre-observation interviews were conducted in observation weeks 1 and 2 and post-observation interviews were conducted proceeding the end of the observation period. Mostly the mothers of DS

actors were interviewed, however in one case both the mother and father participated. Written consent was gained from all participants to have the interviews audiotaped and transcribed (see Appendix L). After results were analysed all transcripts and audio recordings were subsequently destroyed.

Results

Due to the small sample size only descriptive analyses were conducted. Additionally, as no occurrence of Initiate Negative Interaction or any of the 'Other' codes were observed, they were removed from analysis. It should be kept in mind that as only occurrence of the behaviour was recorded out of 30 intervals per actor per observation, irrespective of how often it occurred, the results do not reflect the true frequency of behaviour, but rather the frequency or percentage of intervals that included the behaviour (Martin & Bateson, 2007).

Distribution of Behaviours, Independent of Type of Actor

In order to explore the data in its entirety several levels of analyses were conducted. The initial analyses concerned the general distribution of behaviour, regardless of the type of actor, to explore observable increases in the occurrence of appropriate application of social skills in social (Positive Interaction behaviours) and activity (Constructive behaviour) situations, and decreases in the occurrence of Disruptive and Withdrawn behaviours over the 10 weeks of observation.

Social Skills and Counterproductive Behaviours:

Figure 1 represents the general distribution of frequency of behaviour for each of the general coding categories, irrespective of actor type, across the 10 weeks of observations.

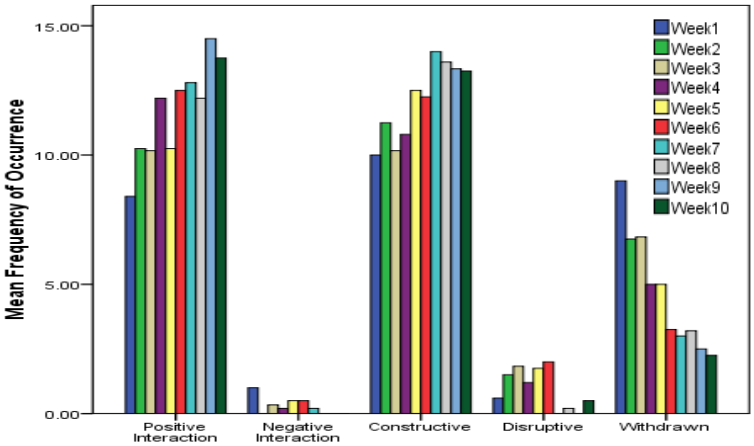

Figure 1. The distribution of the mean frequency of the occurrence of general behaviour coding categories for Week 1 to Week 10.

Overall, there was an observable increase in the occurrence of Positive Interaction behaviours from week 1 (N=8.4; 28%) to week 10 (N=13.75; 45.84%), and an increase in Constructive behaviours, particularly from weeks 1 (N=10, 33.34%) to 7 (N=14, 46.67%). Although Negative Interaction increased from weeks 4 (N=.2, .67%) to 6 (N=.5, 1.67%), the means are small in relation to other behaviours, and the behaviour was not observed from week 8 onwards, therefore possibly signifying the setting of boundaries and friendships in the process of creating a cohesive group. A dramatic decline of Withdrawn behaviours between weeks 1 (N=9, 30%) and 10 (N=2.25, 7.5%) was also observed and, although alarmingly increasing

in weeks 1 (N=.6, 2%) to 6, Disruptive behaviours decreased in frequency from 2.0 (6.67%) week 6 to .5 (1.67%) week 10, with this category one of the least observed behaviours overall. This overall distribution of behaviour is therefore suggestive of reduced disengagement and enhanced use of appropriate social skills in interaction and activity situations for all actors, regardless of type of actor, therefore supporting the hypotheses.

Confidence Related Behaviours:

To consider whether confidence improved over the observation period, specific behaviours indicative of confidence (Initiate Positive Conversation, Aid Others, Ask for Help and Volunteer for Activities) were analysed separately. Table 1 below represents data concerning the mean percentages of occurrence of Confident Behaviours, again regardless of the type of actor, to investigate improvements.

Table 1
Mean percentages of occurrence for behaviour indicative of confidence over Weeks 1-3, Weeks 4-6 and Weeks 7-10, independent of Actor Type or Individual Actors.

General Behaviour	Specific Behaviour	Time Period (% of Occurrence)		
		Week 1-3	**Week 4-6**	**Week 7-10**
Confident Behaviours	*Initiate Positive Interaction*	1.92 (6.4%)	3.17 (10.57%)	3.28 (10.94%)
	Aid Others	.61 (2.04%)	.97 (3.23%)	1.68 (5.6%)
	Ask For Help	.44 (1.47%)	1.00 (3.34%)	1.54 (5.14%)
	Volunteer for Activities	.25 (.84%)	1.28 (4.27%)	1.14 (3.8%)

The percentage of intervals indicating occurrences for specific behaviours nearly doubled from weeks 1-3 to weeks 7-10; Initiate Positive Conversation, the most observed confident behaviour overall, increased from accounting for 6.4% (N=1.92) of all observed behaviours to 10.94% (N=3.28); Aid Others increased from 2.04% (N=.61) to 5.6% (N=1.68); Ask for Help increased from 1.47% (N=.44) to 5.14% (N=1.54); and Volunteer for Activities increased from .84% (N=.25) to 3.8% (N=1.14). Although this supports the hypothesis that confidence related behaviours would increase throughout the weeks, the percentages are minimal in retrospect to the rest of the data corpus. Nonetheless, the low percentages may be because opportunities to exert such behaviours were not available to the same extent as opportunities for Active Participation or Disruptive Behaviour.

Group Comparisons of Observation Data: DS and NLD Actors

As it is unknown whether the above distribution patterns of behaviour are representative of both DS actors and NLD actors, or whether one group showed a significant difference in distribution of particular behaviours, the second level of analysis involved group comparisons to explore similarities and contrasts.

Social Skills and Counterproductive Behaviours:

Table 2 represents the percentage of behaviours indicative of appropriate application of social skills and counterproductive behaviours for each type of actor over the 10 weeks of observation to see if there were any differences between the two types of actors.

Table 2
Mean percentage of occurrence of general coding categories for DS and NLD Actors over Weeks 1 to 10, independent of individual actors.

Type of Actor	General Behaviour	Week of Observation (% of Occurrence)									
		Week 1	*Week 2*	*Week 3*	*Week 4*	*Week 5*	*Week 6*	*Week 7*	*Week 8*	*Week 9*	*Week 10*
DS	*Positive Interaction*	23.34	26.67	24.44	28.3	34.4	42.24	41.67	35.57	43.3	47.77
	Negative Interaction	5.57	0	0	1.67	2.24	2.24	1.67	0	0	0
	Constructive Behaviour	33.34	36.67	33.34	33.3	37.8	37.77	46.67	47.77	48.9	42.24
	Disruptive Behaviour	3.34	20	12.24	10	7.77	8.9	0	1.1	0	2.24
	Withdrawn Behaviour	30	13.34	25.57	21.7	17.8	11.1	10	11.1	10	7.77
NLD	*Positive Interaction*	35	36.67	43.34	48.9	33.3	40	43.34	48.34	53.3	40
	Negative Interaction	0	0	2.24	0	0	0	0	0	0	0
	Constructive Behaviour	33.34	37.77	34.44	37.8	53.3	50	46.67	41.67	40	50
	Disruptive Behaviour	0	0	0	0	0	0	0	0	0	0
	Withdrawn Behaviour	30	25.57	20	13.3	13.3	10	10	10	6.67	6.67

Negative Interaction was only observed in week 3 for NLD actors (2.24%, N=.67). For DS actors, although rising from 1.67% (N=.5) of all observed behaviours for DS actors in week 4 to 2.24% (N=.67) week 6, Negative Interaction decreased to 0% week 10, signifying a decline in application of inappropriate social skills. Furthermore, Disruptive Behaviour was completely exclusive to DS actors, with the percentage of occurrences decreasing from a high of 20% (N=6) of all observed behaviour in week 2 to 2.24% (N=.67) week 10. This could reflect the employment of counter-productive strategies, with the decrease supporting theorising that the creative drama environment is inherently motivational and allows for learning of appropriate behaviours in a setting that is not constricted by limited capabilities, supporting the hypotheses. Furthermore, although both the DS and NLD actors exhibited similar percentages of occurrences of Withdrawn Behaviour (DS &

NLD=30%, N=9) at week 1, Withdrawn Behaviour accounted for a larger percentage of all behaviours for DS actors compared to NLD actors until week 6 of observations (DS=11.1%, N=3.33; NLD=10%, N=3). This pattern may be indicative of limitations in attention span for learning disabled individuals, with the decrease possibly signifying more focus and attention to the learning environment. This conclusion is supported by the patterns of Constructive Behaviour. Although DS actors showed a lower percentage of Constructive Behaviours from weeks 2 to 7 than NLD actors, the dramatic increase is indicative of increased application of appropriate activity interaction skills (i.e. compliance, focus and engagement in the activities), rising particularly from week 6 (37.77%; N=11.33). Furthermore, for NLD actors, Positive Interaction Behaviours were higher across the majority of the weeks than DS actors.

Confidence Related Behaviours:

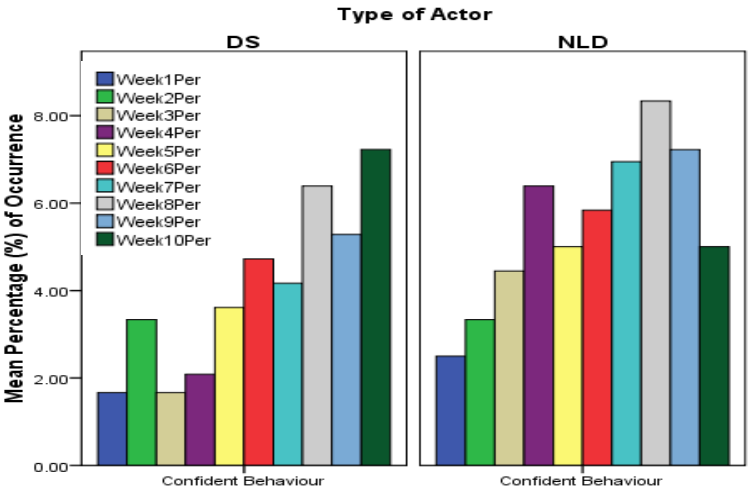

Figure 2: Distribution of the mean percentage of occurrence of all behaviours indicative of confidence for the different Type of Actor over 10 Weeks of observations.

In terms of Confidence Related Behaviours, Figure 3 suggests that NLD actors were quicker to exhibit confident behaviours, which increased in week 8 (8.34%, N=2.5), than DS actors (6.39%, N=1.92). However, an increase in confident behaviour from 2.08% week 4 (N=.62) to 7.23% in week 10 (N=2.17) was observed for DS actors, with the percentage of occurrence at week 10 dramatically higher than week 1 (1.67%, N=.5). Therefore, although increasing at a slower rate, confident behaviour for DS actors radically improved from initial observations week 1, thus supporting the hypothesis. In particular, Figure 2 suggests that Initiate Positive Conversation was the only confident behaviour which DS actors surpassed NLD actors in (weeks 7-10: DS=12.24%, N=3.67; NLD=9.64%, N=2.89).

Individual Analysis of Observation Data and Parent/Peer Observations

Therefore, there is an observable discrepancy between the types of actors in terms of their general social and confidence behavioural patterns. However, there may be further differences at an individual level and therefore, differences in behavioural patterns over the observation period for each actor were examined. Furthermore, parent and peer observations of changes outside of the drama setting were also included to see if improvements observed within the sessions were applied to the wider social context.

Social Skills and Counterproductive Behaviours:

Figure 4 below represents the percentages of general coding category behaviours observed over the 10 weeks for each individual actor. However as Jack was not present in the drama group in weeks 2 and 7, Jill in weeks 2 and 4, Sue and Steph in weeks 5, 6 and 10, and Sarah in weeks 1 and 8, 0% at these weeks represents non-attendance only.

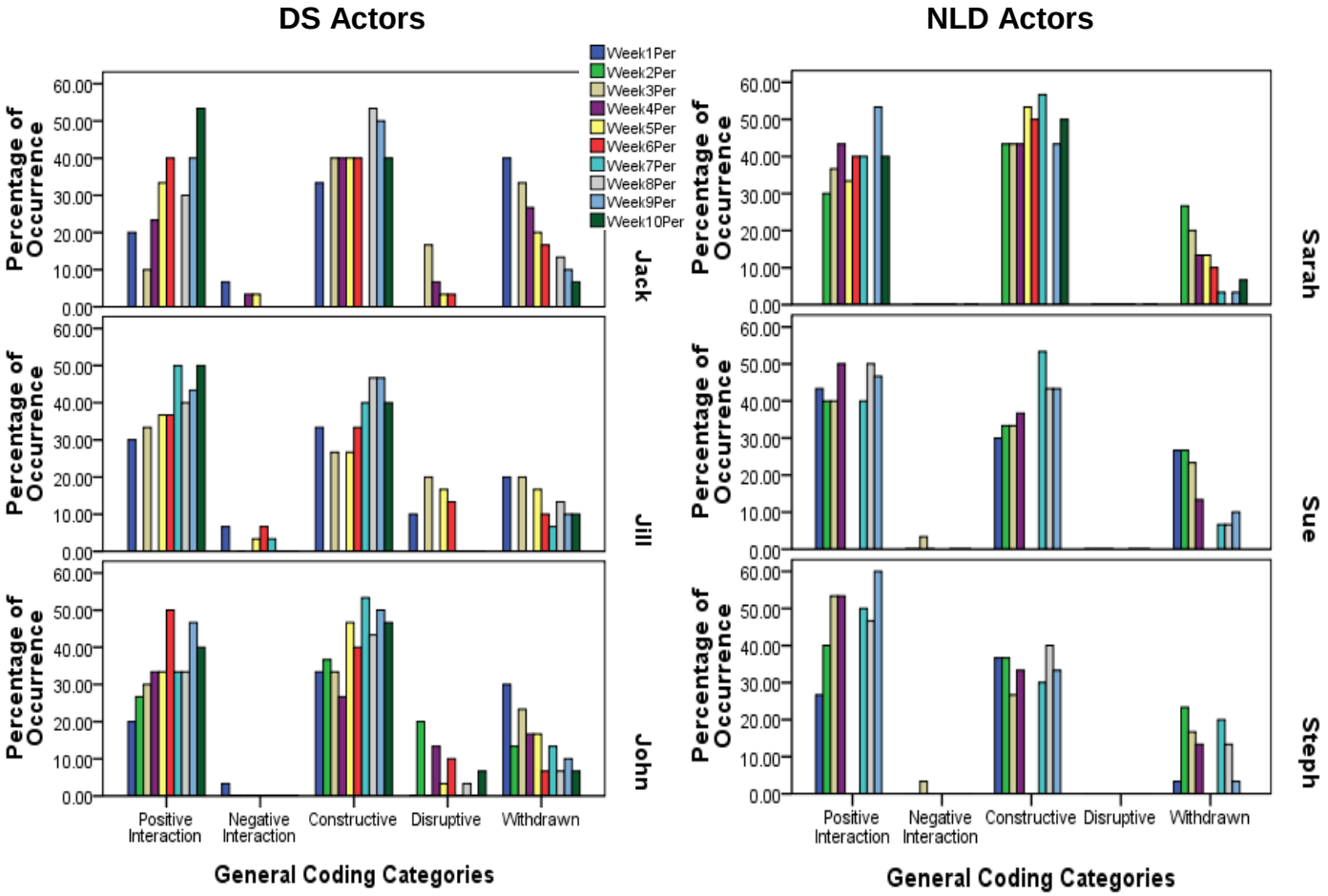

Figure 3: Distributions of the percentage of occurrence of general behaviour categories for each Individual Actor over the 10 Weeks.

Although Withdrawn Behaviour was more prevalent for DS actors out of all observed behaviour, this was much less the case for Jill (week 1; 20%, N=6) than John (week 1; 30%, N=9) in comparison to NLD actors, with Jack having the highest percentage of Withdrawn Behaviour out of everyone week 1 (40%, N=12). Jacks' high Withdrawn results were reflected in the pre-observation interview; '*he likes being by himself* [...] *he often goes into his own little world'*, with the dramatic decrease of occurrence in Withdrawn Behaviours in week 10 (6.67%, N=2) also evident outside of the drama sessions:

'[Jack] has developed confidence in participating in co-operative group activities and being the centre of attention [...] *although he sometimes doesn't participate he wants to learn and he loves his drama.'*

Furthermore Jill's Withdrawn Behaviour pattern, also observed to decrease slightly by week 10 (10%; N=3) was concomitant with her post-observation interviews:

'[Jill] isn't very withdrawn at least not that I have noticed in the past few months [...] *she's now prepared to give anything a go once and wants to do everything and anything.'*

Therefore, although Jill's behaviour decreased at a slower rate than Jack and John within the drama sessions, this may have been because of repeated observations of repetitive behaviour, often associated with autism (De Bildt *et al.*, 2005), although Withdrawn behaviour did decrease both in and outside of the drama sessions, in-keeping with the hypotheses. Furthermore, in terms of Constructive Behaviour, Sarah and Sue showed higher percentages over most of the weeks than any DS actors, although this was much less the case for Jack and John then Jill. This may be because Jill spent more time Withdrawing from the learning environment and therefore Constructive Behaviour was limited or, because '*she has problems with her knee that limit her movement and ability to be active like she wants*', Jill was unable to actively engage in the learning environment the same way Jack and John were.

With regards to Positive Interaction, Jack and John showed the least percentage of occurrence of Positive Interaction behaviours in week 1 (Jack and John=20%; N=6) compared to all other actors, although this increased to 53.34% (N=16) of all observed behaviours week 10 for Jack and 46.67% (N=14) week 9 for John, surpassing Jill, Sue and Sarah, thus signifying an enhancement in use of appropriate social skills. In compliance, pre-observation interviews indicated that Jack '*doesn't really have any friends',* would avoid approaching others to start a conversation, and that he struggled with peer interaction. In addition John was new to Theatre Company X and *'has always been wary about talking to people he doesn't know'*. Parent observations post-interview also marked the difference in use of Positive Interaction Behaviours for both individuals outside of the drama environment:

'*[Jack's] improved in being able to talk in front of large crowds and often goes to meetings with his work that means he has to give presentations'.*

'[John] is always there to help people when needed [...] *he's very aware of what is going on around him what people are doing and what is happening* [...] *recently he's been more forthcoming with speaking up for himself'.*

Therefore observations and interviews are in compliance, suggesting improved application of appropriate social skills, of which the percentages equated to many of the NLD actors within the drama sessions. Furthermore, although Jill showed higher occurrence of Positive Interaction behaviour in week 1 compared to Jack and John, her parents commented in pre-observation interviews that, although sociable with peers, *'if we meet somebody I often have to turn her head and say 'talk to them''.* Therefore, as she had been participating at Theatre Company X for nearly 4 years, it is possible that interaction was higher because she had already developed friendships within the group. Also, due to movement limitations, there may have been more opportunities to exert application of appropriate social skills in interaction situations rather than activity situations. Moreover, in-keeping with the increase observed in the drama session to percentages equivalent to NLD actors at week 10 (50%; week 10), post-observation interviews suggested that:

'She is now more happy to start a conversation with somebody [...] *it's little things like now she can order her own food and say what she wants and what she doesn't want'.*

Therefore, it is evident that, although there is variability between the individual actors, all showed improvement in applying appropriate social skills in activity and interaction situations, and less disengagement.

Confidence Related Behaviours:

In terms of confident behaviour, as can be seen in Table 3 below, percentages were similar for all individual actors by week 10. Although Sue and Steph were quicker to exhibit higher levels of confident behaviours (by week 2) than any DS actor this may have been due to more opportunities to exhibit confident behaviour, such as aiding LD actors where needed (including pushing wheelchairs, offering suggestions etc.), or, in accordance with theorising, the DS actors had a deficiency in self-confidence compared to controls. Nonetheless, by week 5 Jill began exhibiting a higher average percentage of Confident Behaviours (5%; N=1.5) than Jack (2.5%; N=.75) or John (3.34%; N=1), equivalent to the average percentage of behaviour exhibited by Sarah (5%, N=1.5), and all showed improvement by week 10.

Table 3

The mean percentage of occurrences of behaviours indicative of confidence for each Individual Actor over the 10 Weeks of Observations.

Week	Name (Average % of Overall Confident Behaviour)					
	Jack	**Jill**	**John**	**Sarah**	**Sue**	**Steph**
Week 1	.00	2.50	2.50	-	2.50	2.50
Week 2	-	-	3.34	3.34	5.00	1.67
Week 3	1.67	3.34	.00	2.50	5.00	5.84
Week 4	1.67	-	2.50	3.34	7.50	8.34
Week 5	2.50	5.00	3.34	5.00	-	-
Week 6	2.50	4.17	7.50	5.84	-	-
Week 7	-	6.67	1.67	5.84	9.17	5.84
Week 8	5.00	7.50	6.67	-	8.34	8.34
Week 9	5.00	5.84	5.00	7.50	7.50	6.67
Week 10	6.67	7.50	7.50	5.00	-	-

In terms of parent and peer interviews a reoccurring theme in all DS actors' post-observation interviews was that confidence in self and ability had increased dramatically;

'[John's] gained confidence from the feedback he has received from [the theatre company] [...] *he now doesn't need as much reassurance from me and doesn't often doubt what he can and can't do although his self-expectations can be unrealistic sometimes'*

'[Jill] has grown so much and although she will still look to me for solutions that is becoming less so [...] *she is definitely more confident in herself'*

Particularly, confidence was seen in the actors being more forward in asking for help and volunteering to participate in activities, as well as speaking up for themselves and approaching and talking to others at home. Therefore both within and outside of the drama sessions an observable improvement was noted in self-confidence, supporting the hypothesis.

Parent/Peer Interviews: Changes in Emotional Expressivity

Although not observed in the drama sessions, emotional expressivity was explored in the interviews with parents and peers in relation to emotional repertoires and expression of emotions in socially acceptable ways. For Sarah, Sue and Steph,

pre- and post-observation interviews with peers revealed that, although all were competent in labelling emotions, expression of certain emotions (such as feeling upset or angry) was reserved. Particularly, Sarah was described as someone who *'doesn't really open up to anyone* [...] *I sometimes wonder whether she puts on an act to cover up emotions she doesn't want me to see'.*

Although for NLD individuals emotional expressivity did not seem to change between pre- and post- observation, for some of the DS actors a considerable difference was observed. Pre-observation both Jack and Jill were suggested to be *'unable to articulate'* their own emotions with Jill in particular being poor at '*telling what emotions she is feeling or what emotions others are feeling'.* Post-observation however, it was suggested that Jill was *'better able to express herself* [...] *she generally shows her emotions now (laughs) there's always a lot of door slamming you know (laughs) but she is now able to talk to us and tell us what she is feeling'.* Furthermore, Jill was suggested to be more in control of her emotions and have less frequent mood-swings post-observation than pre-observation. Jack also showed improvement in expressive and control skills, with his mother suggesting that *'it's not difficult to know what he is feeling now* [...] *although he still has problems articulating how he is feelings it's less frequent that he is unable to find the right words or expressions*'. Moreover, his mother indicated that he did not have mood swings or get over whelmed by his emotions in the post-interview, an improvement from the pre- interview.

John, on the other hand *'has always been good at expressing his emotions even from a young age* [...] *it's not difficult to know when he is sad or upset as he generally is very civilized in expression he'll let you know what he is feeling'.* However, his mother commented in the post-observation interview that he had developed a better understanding of being able to control his emotions in group situations when other people are playing up.

Therefore, overall, common themes inherent in post-observation interviews included improved use of expressive skills, control of emotions and development of confidence in applying these at home in the way of communicating how they were feeling and controlling mood-swings and excessive emotionality, therefore supporting the hypotheses.

Discussion

The aim of this research was to investigate whether creative drama was beneficial for adult learning able and disabled actors, in terms of improved social skill application, confidence development, decreasing disruptive behaviour and increasing emotional expressivity both in and out of the drama environment, with results supporting the hypotheses. Particularly, in concordance with previous research, Disruptive and Withdrawn behaviours, indicative of the use of counterproductive strategies in the learning environment, dramatically decreased for DS actors, thus supporting the idea that individual intellectual, physical and/or emotional challenges were not barriers to participation and expression (Warren, Richard & Brimbal, 2005). Additionally, involvement in activities, use of appropriate social skills and confidence improved considerably for actors during observations, with DS actors in particular showing heightened involvement, focus and improved capabilities in listening, aiding others and asking for help. Furthermore, application of improvements to wider social contexts was observed by parents and peers, particularly for DS actors, both in relation to enhancement of self-belief in abilities and the application of appropriate social and expressive skills such as speaking up for themselves, articulating and

expressing their emotions and showing more independence. Results are therefore in concordance with theorising that participating in creative drama helps to improve self-concept, a construct closely related to confidence in self and abilities (Schnapp & Olsen, 2003), obtained via actors exploring and becoming aware of their voices, bodies, emotions and senses (Warger, 1985), and parallels conclusions made from Snow *et al's.* (2003) research that adult actors matured in ability to apply a wide range of social and expressive skills in differing situations within the drama environment.

However, the results from this study need to be approached with caution as a month prior to observations the cast participated in a public performance, with positive audience reception suggested to increase beliefs about self-ability and improve confidence up to three months post-performance (Snow *et al.,* 2003), thus confounding the results obtained and lowering validity of findings. Furthermore, research advocates a strong positive correlation between the number of productions an actor performs in and high scores on social skill and emotional expressivity scales (Banks & Kenner, 1997). Therefore, as all actors in this study had previous experience of drama, the sample may be biased and behaviours above normal levels of occurrence. Consequently participants with minimal experience participating in dramatic play should be considered for future research for a more comprehensive and unbiased understanding of the psychological, social and personal benefits of creative drama for adult individuals with and without LD's (Jindel-Snape & Vettraino, 2007).

Walsh *et al.* (1991) advocates that it is important to study the effectiveness of creative drama at an individual level to gain a more comprehensive understanding of its benefits as there may also be limits to the effectiveness of drama depending on the type and severity of LD. Although a full case analysis was not carried out, the individual analyses that were conducted highlighted important differences in the patterns of observed behaviour both within the drama sessions and outside of the drama environment, which were not represented in group comparisons alone (Yin, 1994), therefore supporting the assumption that a case-study approach should be employed. For example, Jill, who was suggested to have mild autism, consistently showed more Positive Interaction behaviours than any other DS actor, whereas Jack showed more occurrences of Constructive behaviours indicative of appropriate social skills application in activity situations. Furthermore, these results suggest that it is vital to compare the different techniques and activities so as to further theory concerning what aspects of the creative drama environment are more beneficial or detrimental for different individuals (Jindel-Snape & Vettraino, 2007). As percentage of Positive Interaction behaviour was higher for Jill, it may have been the co-operative group setting that was more effective as a learning tool for her, whereas for Jack Constructive behaviours were more prominent, suggesting that the different creative drama activities may have facilitated learning. Therefore, although this study advocates that, overall, the drama environment can improve the psychological, social and personal welfare of adults with LD's, it is unknown which aspects of the environment or activities were the most effective. Consequently further research manipulating the use of the different activities is needed to inform future intervention programs of which techniques should be incorporated for the different needs of the individuals so as to achieve the maximum benefits (McLennon & Smith, 2007).

Although the findings are promising there are several methodological limitations that warrant comment. Even though ecological validity was high, extraneous and confounding variables may have compromised reliability and internal validity of the observation, including the potential effects of observer reactivity on

spontaneous social interaction behaviours (Slee, 1987). As consent and assent without deception was an ethical requirement, all actors were aware that they were being observed, which could have either distracted them and lead to inaccurate coding of Withdrawn behaviour in particular, or could have lead to social desirability and demand characteristic effects (McWilliam & Ware, 1994) leading to inaccurate coding of confident and positive social behaviour. Furthermore, as individuals with LD's are a stigmatized population, anxiety of being watched may have caused them to exhibit more conservative behaviours (Warren *et al.,* 2005). Attempts to counterbalance such effects were taken with researcher immersion in Theatre Company X throughout the previous production process to increase use of presence, and the observer was situated as unobtrusively as possible whilst conducting observations (Martin & Bateson, 2007). However, by immersion in the drama community observer bias may have been prominent, thus influencing the perception of behaviour and reducing the reliability of the data (Mann *et al.*, 1991). Furthermore, fatigue may also have been present and the use of video recording should be considered in future research (Martin & Bateson, 2007). Nonetheless, the naturalistic setting means more realistic behaviour is observed than would be in a laboratory setting, thus increasing validity and applicability of results (Altman, 1974).

Problems inherent with the time sampling procedure also could have reduced the validity and reliability of the data, with many psychologists claiming that one-zero sampling is an inadequate measurement procedure for any psychological research (Altman, 1974). Systematic bias can lead to underestimated true frequencies of behaviour as only occurrence/non-occurrence is coded regardless of how many times the behaviour was observed within the interval (Martin & Bateson, 2007). However, Smith (1985) argues that one-zero scores provide a meaningful composite measure of the amount of behaviour observed, often highly correlated with duration and frequency scores, and are therefore valid measures by themselves. Additionally, this sampling procedure is regarded as less demanding than continuous recording, therefore beneficial to apply in naturalistic settings where video recording is unfeasible or likely to elicit reactivity effects (McWilliam & Ware, 1994).

As it is difficult to conduct naturalistic observations with stringent controls, Walsh *et al.* (1991) suggests that there is a need to collect multiple perspectives of behavioural and attitude changes to assess effectiveness of intervention programs. The interviews therefore conducted with parents and peers allowed for further insight into the application of benefits to outside of the drama environment, an area neglected in previous research (Jindel-Snape & Vettraino, 2007) However, although all actors were shown to improve in social and expressive skills and confidence, suggesting application of learnt skills in untrained social environments and situations, there are many potentially problematic limitations and confounding variables that could have affected parent and peer responses, including social desirability effects, disclosure of sensitive material, inhibitory effects of recording, and subjective interpretations of questions (Floyd & Fowler, 2009).

As interviews were conducted with parents who replied stating interest in participation, social desirability and demand characteristic effects may have been prominent; the answers given, and statements made about the performances of their child may have been biased towards enhancing the more positive aspects of improvements rather than stating behaviours and attitudes that were unaffected (Potter & Hepburn, 2005). Particularly, parental reports are subject to biases that lead to over- or under-stating problems and behavioural deficiencies, thus lowering the reliability and validity of results (Kishida & Kemp, 2006). Moreover, the effect of tape recording could have inhibited parents and peers talking about sensitive

subjects, particularly in relation to LD's and the impact they have had on the actor's lives (Martin & Bateson, 2007). Although vignettes were used to elicit perceptions, opinions, beliefs and attitudes from parents and peers, with such techniques providing the opportunities for discussion of sensitive experiences in comparison to the 'normality' provided by the vignette (Finch, 1987), social desirability and inhibitory effects could not be controlled for, therefore lowering reliability of data. Furthermore, parents in particular are not always able to observe their children in different aspects of their lives, such as work and college situations, and therefore are unable to reliably comment on behavioural improvements in these circumstances. Consequently, further perspectives should gained from other individuals in the actor's immediate environments, such as peers, colleagues and social workers, to gather more inclusive data in which to assess the effectiveness of creative drama interventions for individuals with LD's (McArdle *et al.,* 2002).

Finally, the research conducted was concerned with exploring the short-term benefits of creative drama for adults with and without LD's only, as due to time limitations long-term benefits could not be adequately investigated. However, it is not enough just to explore the short-term effectiveness of drama on social-emotional development, and therefore future research should focus on demonstrating the maintenance of benefits post-intervention for creative drama to be considered an effective program in enhancing the psychological, social and personal welfare of adults with LD's long-term (Jindel-Snape & Vettriano, 2007).

Conclusion

Research into creative drama is minimal yet promising, and the qualitative and quantitative results from this study add greater depth to our understanding of its benefits for an adult learning able and disabled population. Whilst investigations into the benefits have so far been limited to children and adolescents in educational settings, this research suggests that community drama programs are effective in enhancing social-emotional development and confidence in self-ability for an adult LD population, thus encouraging a better quality of life and social inclusion for an already stigmatised population. Although only six participants were included in this research, therefore limiting the generalisability of the findings (McWilliam & Ware, 1994), the idiographic and qualitative approaches utilized have amplified the unique voices of those experiencing the benefits of creative drama either first or second hand, and therefore can be considered to be a form of naturalistic generalisation in itself (Yin, 1994). Future research however is needed to define and inform professionals of the most appropriate techniques for different LD's and needs, the duration and frequency of sessions needed for observable benefits, and the long-term generalisation and maintenance of increased social and expressive skills and self-related constructs.

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