

# Introducing intensive interaction

Luke Jefferies looks at an approach to communication and social interaction that could be coming of age

**Intensive interaction (II) is an exciting person-centred approach to social interaction traditionally used with people with profound learning disabilities or autism. It is relatively straightforward to learn and can be used by care staff, psychologists, speech and language therapists. The approach has a growing research base supporting its use, and it is increasingly used in care and educational services for a wide variety of individuals who traditionally have been isolated from communication and social interaction. But could it actually be for all of us?**

**This article aims to introduce intensive interaction to a wider psychological audience in the hope it will inspire research and therapeutic practice.**

## questions

Is intensive interaction just a means of communication or could it be considered a psychological therapy? How best could the principles and practice of intensive interaction be integrated into educational settings?

## resources

Zeedyk, M.S. (Ed.) (2008). *Promoting social interaction for individuals with communicative impairments*. London: Jessica Kingsley.  
www.intensiveinteraction.co.uk

Intensive interaction (II) was an approach originally conceived at Harperbury Hospital School during the 1980s by teachers Dave Hewett and Melanie Nind. The school was for young people with profound learning disabilities, sensory or physical disability and 'challenging behaviour'. Their curriculum was traditionally based around rewards, rewards withdrawal, periods in 'time out' and exclusion (Nind & Hewett, 1994). At the time it was becoming increasingly clear to the staff at the school that the traditional approach of teaching simply was not working for their learners. Influenced in part by psychologist Geraint Ephraim's (1979) theories on 'augmented mothering' they moved towards a more flexible, interactive and reflective approach.

Hewett and Nind put the learner and communication at the centre of their teaching practice and, using communication techniques developed from 'infant-caregiver' interactional models, the staff endeavoured to join their learners in 'their own world'. They did this by responding to what the young people were already doing, creating jointly focused activities, and by developing interactions with a mixture of blended repetitions and imitations of the learners' physical behaviours.

II has been considerably influenced by the developmental literature, including the psychological theories of 'augmented mothering' (Ephraim, 1979), and other research showing that young babies can start interacting with adults very shortly after birth. Within one year, infants

proceed from knowing very little, to being competent at giving sustained attention, naturally developing the abilities required to take part in increasingly complex and sophisticated social interactions (Smith et al., 2003). They very quickly learn to use and understand facial expressions and eye contact, and learn to read meaning into facial expressions. These developments all occur without the parents being trained teachers. Instead they naturally join in with or respond to selected aspects of the baby's behaviour, and a process of reciprocal imitation often begins. Through this process, guided by the baby's feedback, a social environment will be created in which the baby feels safe and motivated, and thus communicative competence and understanding can develop. Intensive interaction works towards this process when working with people with severe or profound and multiple learning disabilities or autism.

By the 1990s intensive interaction, as a defined approach, began to gain wider recognition across the country, with other key figures, such as Phoebe Caldwell, helping to disseminate the philosophy and practical techniques of the approach. Caldwell has been one of the most charismatic and prolific advocates of II over the last 15–20 years or so. She has provided many clear and practical guides to II in her books, such as *Finding You Finding Me* (2006). One of my first encounters of II was a training video showing Caldwell working with a young autistic man called Gabriel (*Learning the Language*, 2002). At the start of the film Gabriel was totally occupied with his own ritualistic behaviours, apparently 'locked into' his own world. But with Phoebe engaging in intensive interaction with Gabriel this quickly changed. His ritualistic behaviours, such as string or glove flicking, became signals or access points for Phoebe, and by joining in with these behaviours she began to interact with him, or as she put it 'learned his language'. By the end of the video Gabriel and Phoebe are shown sharing very close eye contact, smiling and laughing together. It was

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remarkable to watch and was very thought-provoking.

Graham Firth, the intensive interaction project leader at Leeds Partnerships NHS Trust introduced me further to the philosophy and techniques of intensive interaction. On the Leeds course, generally attended by residential care or day service staff, it became clear that for most people intensive interaction is actually a relatively uncomplicated approach to learn. As intensive interaction is based on 'infant-caregiver' models of interaction we can see some of the basic strategies of the approach whenever we see an adult interacting with a baby, e.g. big open eyes and vocal echoing ('goo gooing' together), communicating via body language, or vocal tone and generally communicating without verbal language. It could be argued that the basics of II are universal within us all. During the II training students learn to reflect on the possible meanings and motivation behind the behaviours of their clients. Furthermore, on the course the students are asked to look at the person's emotions/affect, any cognitions that may be involved and the role of sensation.

One practical example of the approach I observed was with a client who would self-stimulate by rubbing his thumb into the palm of his hand.

Initially the staff member would rub her thumb into the client's hand, and then with time they ended up being able to rub each other's thumbs. As this fundamental communication and trust grew, further ways of communicating developed, including smiling, 'dancing' and 'singing' together.

During this time the client's behaviour became less ritualistic and he became more involved with his environment and more interactive with those around him.

### An approach for all?

Nind and colleagues point out that the mental health needs of people with severe and profound learning difficulties have often been neglected in the past. They claim that intensive interaction offers a positive way of gaining insights into a person's state of mental health and of promoting their emotional well-being. Traditionally II has been used with clients with severe or profound and multiple learning disabilities and/or autism, but at

an II conference in 2008, claims were made that intensive interaction can be used with other clients who have profound communication problems; including using the approach with people with sensory problems, dementia, stroke and even brain injury.

Research psychologist Dr Suzanne Zeedyk and her team at Dundee University have for several years been using intensive interaction techniques when working with a wide range of individuals with communicative impairments, both within the UK and abroad. The team has investigated the effectiveness of intensive interaction, with a special focus on microanalytic methods of coding video tapes. She presented this to the conference, and also covers it in Zeedyk (2008).

Microanalytic approaches involve closely analysing videotape in terms of the frequency or timing of selected behaviours. Zeedyk showed how these methods provide insights relating to the swiftness with which intensive interaction creates a shift in attention for the client towards the

interactor or communicative partner. The wider team has been using microanalytic approaches to look for any increases in engagement for people with communicative problems from a range of causes: deaf-blindness, dementia, early neglect. One of their overarching

aims is to show just how widely intensive interaction appears to be effective. For Zeedyk and her team II is not just for individuals with learning disabilities and autism, but for all of us. All humans, she says, need social engagement with others for our mental health and happiness. II is special because it acknowledges this simple idea and provides a relatively simple and practical way to respond.

### A neurological role

Dr Peter Coia, a clinical psychologist from Wakefield, has proposed a neural mechanism that goes some way to

## Fundamentals

Intensive interaction is an approach for enhancing the communication abilities of children and adults who have severe sensory problems, severe learning difficulties or autism. According to Nind and Hewett (1994), intensive interaction employs the 'fundamentals of communication' to build social interactivity. These 'fundamentals' include:

- Enjoying being with another person
- Enhancing concentration and attention span
- Developing the abilities to attend to other person
- Taking turns in exchanges of social behaviour
- Sharing personal space
- Using and understanding eye contact and facial expressions
- Using and understanding non-verbal communication
- Using vocalisations with meaning
- Learning to regulate and control arousal levels

explaining the responses produced by intensive interaction. A mirror neuron is a neuron that fires both when an animal acts, and when the animal observes the same action performed by another. In humans, brain activity consistent with mirror neurons has been found in the pre-motor cortex and the inferior parietal cortex (Iacoboni et al., 1999). Coia believes that mirror neurons might play a very important role in language acquisition via behavioural and vocal imitation – they enable all of us to recognise and pay attention to our own behaviour when it is mirrored by someone else (Coia, 2008).

At the recent II conference the potential neurological role of mirror neurons in the cognitive development of people with autism was raised. It was acknowledged that the connection between mirror neuron dysfunction and autism remains highly speculative (Dinstein et al., 2008), and that it is unlikely that mirror neurons are related to many of the important characteristics of autism. However, Oberman et al. (2005) found that an autistic spectrum disorder group did not show the typical suppression of 'mu wave' activity in the sensorimotor cortex when watching a video of a hand movement. Based on these results, some researchers claim that reduced mirror neuron activity could be implicated in autism, affecting the development of social skills, empathy and theory of mind.

This, according to Dr Coia, could be of profound importance for practitioners of intensive interaction, in that it gives further weight to the theoretical basis of the social interaction engendered by the



Intensive interaction can be used to develop communication

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approach. Dr Coia's model utilised mirror neurons and our 'cultural library', which is our own understanding and experience of social interactions and ways of communication, as the neurocognitive basis for II – not mirror neurons alone. Looking back at the training video footage of Phoebe Caldwell and Gabriel, it is nevertheless possible that the rapid development of the social interaction came about from the effects of Gabriel's mirror neurons firing on perception of Phoebe's imitating of his own behaviour. If, through the use of intensive interaction, we employ our ability to imitate and respond to others (in a way that they recognise as similar to their own standard behaviour) then there is an increased likelihood of social interaction and possibly in improved quality of life.

### Unanswered questions

Intensive interaction is a fascinating approach to care, teaching and potentially to therapy as well. What is clear is that

many of its key features are already well understood by psychology, although there are lots of questions that the approach raises that have not been answered yet. Is intensive interaction really anything special or is it just an extension of 'augmented mothering' or tacit parenting skills? Do Dr Coia's views on the role of mirror neurons help account for learning disabled people's responses to intensive interaction? What are the implications for the use of the approach with those with autism? Are we certain that an adult with severe learning disability or autism is responding to, and processing II in the same way as a preverbal child?

As II has come of age its exposition and dissemination has been largely dominated with 'expert practitioners'; this inevitably has involved differences in opinions along the way. The approach is now increasingly being used by people with varying levels of expertise and from different backgrounds which may make the approach encounter some dilution or various potentially conflicting re-

interpretations that could reduce the effectiveness of the approach. Some of my own work with Graham Firth looking at the use of intensive interaction has shown that even following training some staff seem to have difficulty using the approach consistently (Firth et al., 2007). This highlights a problem with II; in many respects it is not 'something distinct or special', as it uses normal body language and non-verbal communication. This is also a potential critique of some of the II research, as it is not always clear the techniques being used are in fact II. More effort is required to clarify what II is and what II is not, what are its essential features and what is their contribution to the overall communication.

The potential benefits associated with intensive interaction are thrilling to many who use the approach, including a large body of unheralded individuals who work directly with the clients. This is especially so if you consider that there are very few alternative approaches that can be used with people with severe or profound and

## Intensive interaction as a psychological therapy

Cathy Harding and Ruth Berry look at the case-study evidence

At the broadest level, intensive interaction is consistent with three major schools of psychological thought – humanistic psychology, attachment theory and positive psychology. All these approaches share a core tenet that positive human relationships are crucial to our sense of self-worth, ability to realise our potential, and our psychological well-being.

Mainstream (that is, non-learning disability) research provides some evidence that depressed mothers are poorly attuned to their infants and that this can lead to a lasting depressed state in their children (see Trevarthen and Aitkin, 2001, for a review). However, Hundeide's (1991) work with children who have suffered extreme deprivation in orphanages suggested that such effects can be remediated.

But how can this best be done? Lott (1998) proposes that talking therapy may not be effective with severely maltreated children as they may be in a state of persistent hyperarousal. Rather, it is proposed that '[w]hat will get through is tone of voice, demeanour, facial expressions and a sense of empathy that is rooted in the early psychobiological attunement between mother and infant' (p.3). Intensive interaction aims to provide social encounters at precisely this level and so has the potential to function as a powerful therapeutic intervention for people who struggle to use words to express their emotional state and for whom social interactions are difficult.

More direct evidence to support these speculations comes from the case studies of Nind (1996) and Kellett (2000, 2003, 2005), which have all involved provision of comprehensive intensive interaction input

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multiple learning disabilities, sensory impairments and 'challenging behaviours'. While II is by no means a 'magic wand', its reflective nature, relative simplicity, and evidence-based philosophy and methods are very interesting. I believe the approach deserves more interest from psychology. This is increasingly true as intensive interaction is being used on an ever widening number of people with different communication problems. Psychology can assist the debate on what intensive interaction is and how it works, and so further its potential use as an educational, therapeutic and social approach.



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as the intervention. Nind's study involved six residents of a long-stay hospital, and Kellett's replication involved children from three community special schools. Both researchers have investigated the use of intensive interaction as an educational tool, but their work has employed the most robust methodology of the published evidence, and provide support for what can be seen as psychotherapeutic changes.

Typical of the cases is Jacob (Kellett, 2003), who is reported to have shown significantly decreased levels of self-injury and stereotypical behaviours pre- to post-intervention. In addition, the staff who knew him well saw him as a much happier child and described a change in his personality: they 'had discovered a delightfully humorous, mischievous side to his character that they had not known before'. In psychotherapeutic terms, it can be suggested that the intensive interaction intervention enabled the one-to-one worker to develop a meaningful relationship with Jacob and that this promoted his psychological well-being (made him happier) and enabled him to show his potential (humour and mischief).

There are a handful of case studies with clinical psychologists as authors. These lack the methodological rigour of the Nind and Kellett case series, but have yielded promising evidence for the psychotherapeutic potential of intensive interaction with adults with severe or profound levels of learning disability and

chronic problems of withdrawal and/or self injury. The Elgie and Maguire (2001) study involved a client, Anna, a 39-year-old woman with a profound learning disability who was blind. She was extremely isolated and had self-injured since childhood. Thrice weekly intensive interaction sessions were seen to result in her spontaneously reaching out to her therapists, a behaviour that had not been observed during the six-month baseline period, and that was 'interpreted as indicating the development of an emotional bond and a satisfying relationship with [her therapists]'.  
Lovell et al. (1998) offered sessions of intensive interaction to a 53-year-old man, W, who had lived in institutions since the age of nine and who was seen by nursing staff as one of the most withdrawn people in his hospital. A variety of measures indicated that during the intensive interaction sessions W initiated more contact with the therapist, showed more interest in people and enjoyed the interaction. Anecdotal evidence supported these findings: '[n]ursing staff commented that during the intervention period W appeared happier and more willing to interact than he had before'.

The case-study evidence therefore supports the use of intensive interaction to develop positive relationships with people with a learning disability. Our own case study (involving one of the authors and a colleague), did not involve a 'classic' candidate for intensive interaction – 'Susan' is intellectually more able than the 'typical' client and has some speech. Although Susan would share time and space with other people, the interactions she received were largely focused on controlling her. Susan has lived in hospitals since childhood. She has a history of severe neglect and repeated abandonment by her primary attachment figures and shows many of the features typical of children who have experienced 'global neglect' (Perry & Pollard, 1997) such as hyperarousal, difficulties forming meaningful relationships with others, and

lack of impulse control. She has displayed severe self-injury and aggression towards others since early childhood, and we can hypothesise that her early attachments and subsequent 'care' in institutions led to these behaviours becoming the only ways that she could draw a consistent and predictable response from her social environment.

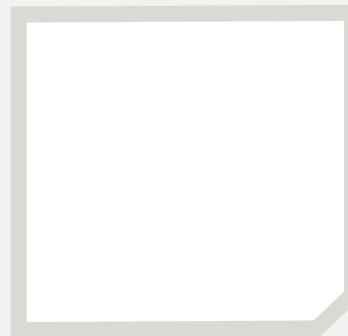
Past records stated that Susan liked drawing, so we took paper and crayons to our sessions. Susan immediately engaged with us, requesting that we draw particular objects such as flowers, faces and cars. Susan also made attempts to involve the direct care staff in interaction: she would hold up the pictures to them and invite them to 'look at that' with a beaming smile (she also interacted with us in this way). The activity expanded into sharing songs when Susan started to sing 'Round and round the garden' as we drew flowers, and her expressed vocabulary expanded as the sessions progressed. For example, she requested 'more petals' on a 'sunflower'.

The sessions of intensive interaction seemed to provide Susan with human contact that she enjoyed and within which she could exercise control in a safe way (for example, telling us what to draw).

This relational context may have provided the basis for her using an increased vocabulary – perhaps she had gained confidence and we had earned her trust that we would not respond negatively to her speaking (this had previously been discouraged). It was possible to find a way of being with Susan that encouraged her

potential rather than

controlled her. The sessions also highlighted that Susan wanted to engage others and could do so very skilfully – we see these as pre-existing skills which the intensive interaction sessions encouraged Susan to use. Both therapists felt that there were moments of connectedness, especially when Susan held up her drawings to us and we all shared in her pleasure in them.



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