

Intensive Interaction and autism: a useful approach?

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Melanie Nind, senior lecturer in the School of Education, Oxford Brookes University, addresses the potential usefulness of Intensive Interaction for pupils whose learning difficulties are compounded by autism. She considers empirical case-study evidence together with questionnaire and interview data from teachers using the approach.

Introduction

Intensive Interaction is an approach to teaching and spending time with people with learning difficulties which is aimed specifically at facilitating the development of the most fundamental social and communication abilities. Nind and Hewett (1994) give details and it has been the subject of comprehensive evaluation (Watson & Knight, 1991; Nind, 1996; Watson & Fisher, 1997). A decade after the potential of Intensive Interaction was first discussed in *BJSE* (Nind & Hewett, 1988), a collection of reflective essays on how the approach is being used was published (Hewett & Nind, 1998). This collection brings together the accounts of practitioners from different disciplines, together with parental views, illustrating Intensive Interaction in use with learners of different ages, disabilities and needs. One such group includes those whose learning difficulties are compounded by autism.

Intensive Interaction and autism

Intensive Interaction has been written about and discussed as an approach to 'communication' for children and young people with the most severe learning difficulties, who have not readily made relationships, established informal communication or who are unable easily to access the curriculum on offer. Many have behaviours and additional sensory or physical disabilities which are ritualistic and challenging. Until recently, however, there has been no focus on Intensive Interaction as an approach to meeting the specific difficulties and needs of learners with autism and those who have autistic spectrum disorders.

The question of whether we even need to address the relevance of Intensive Interaction for those individuals with learning difficulties and autism, as a separate group, has arisen for two main reasons: the nature of the autistic condition and the response of the practitioners in the field. Some conceptions of autism hold that personal *relatedness* with others is the central impairment and that it is biologically based (Hobson, 1993). This lack of *connectedness* with others may be seen as an area of difficulty requiring compensation strategies rather than an area where remediation is possible. Similarly, much of the

literature on autism emphasises an innate inability to learn from natural interactive processes (Jordan & Powell, 1995; Trevarthen, Aitken, Papoudi & Robarts, 1996).

The very challenging nature of many individuals with autism has meant, for some, a focus on 'special', as opposed to 'naturalistic', intervention processes. There has been much recent media interest in parental campaigns, and great pressure on local education authorities to provide access to special treatments (leading to the DfEE commissioning a study of the evidence on the efficacy of the various educational interventions). Despite the recent rise in interest in Daily Life Therapy (Higashi), TEACCH and Lovaas approaches (Jordan, Jones & Murray, 1998) there are amidst the plethora of interventions for people with autism some which work on using and developing interactive abilities. There have also been systematic studies of naturalistic interventions, such as Peck's (1985) study, where the effects of altering teachers' social interaction styles were examined. Many of the interactive approaches for children with autism rely more on training or teacher direction, and less on intuitive responding and structured reflection, than in Intensive Interaction. Nevertheless, the benefits of a non-directive interactive style has been recognised by those who advocate such approaches and recognise the rich interaction opportunities offered by able peers and siblings (Roeyers, 1995).

The Option approach (Kaufman, 1994), for example, seeks to engage the child with autism in interaction by responding with complete acceptance of what he or she does. Christie and Wimpory's Sutherland House approach (1986) utilises musical interactions which parallel mother-infant interactions in order to develop reciprocity and dialogue. The curriculum of the 'Little Group' described by Davies (1997) seeks to change the nature of the interaction between child and teacher to be more in keeping with the helpful, nurturing style of caregiver-infant interaction. The child is required to change to aid this process, whereas in Rogers, Herbison, Lewis, Pantone and Reis's (1986) play school curriculum, which enables engagement in a task and emotional engagement, staff are trained to adjust their interactive style to impute intentionality. They, like Dawson and Osterling (1997) in their early intervention programme, make use of specific aspects of a parenting or facilitating style of interaction and play in order to put the child in control of the interaction and to ease the development of inter-subjectivity.

Approaches based on naturalistic processes and developmental principles, however, do not dominate in the current climate, where the prevalent position is that

individuals with autism need direct training and behavioural intervention. As Mundy and Crowson (1997) note, however, the priority of developing the capacity of children 'to initiate acts for their own social ends' (p.664) tends to bring one back to focus on 'incidental learning paradigms that capitalise on the existing social-communication tendencies that may be observed in all children with autism' (p.664). Evaluations of many such latter approaches, including Intensive Interaction, are important in this debate.

The second reason for taking this particular focus at present is that while there has been an implicit assumption that those with learning disabilities and autism are part of the target group for Intensive Interaction, some, but not all, practitioners have not shared this assumption.

The issue of the relevance of Intensive Interaction for learners whose learning difficulties are compounded by autism can be approached from both a theoretical and empirical perspective. The theoretical concerns can be addressed by considering our knowledge of how Intensive Interaction works and how sociability and communication develop, or fail to develop, in individuals with autism. From an empirical perspective, we can look at what evidence is available and at the experiences and thoughts of practitioners.

Intensive Interaction: the approach

Intensive Interaction is based on the model of caregiver-infant interaction and makes use of caregivers' playful style in the interactive process. The intention is to make use of what we know about how the rudiments of sociability and communication are ordinarily learned in infancy on which a teaching model is built. This means using a combination of intuitive processes (teaching infants to communicate without knowing how we do it) and intelligent reflection. It does not attempt to re-parent or to compensate for missed experiences, nor does it advocate treating individuals with learning disabilities as if they were babies. Intensive Interaction differs from many of the early interventions which focus on the interactive process, such as McCollum (1984) and, to some extent Dawson and Osterling (1997), in that rather than targeting specific helpful interactive behaviours, it attempts to enable practitioners to adopt a whole, nurturing, facilitative and problem-solving framework for interaction (Yoder, 1990). This is more in keeping with the social reciprocity interventions for families advocated by Affleck, McGrade, McQuenny and Allen (1982), Clark and Seifer (1983) and Mahoney and Powell (1988). It is a naturalistic approach in terms of intervention procedure rather than context, and in the sense that the interactions resemble the 'natural' interactions between caregivers and infants. Hepting and Goldstein (1996) discuss what is *natural* about naturalistic intervention.

Intensive Interaction is characterised by regular, frequent interactions between the practitioner and learner, in which there is no focus on the task or outcome, but in which the primary concern is the quality of the interaction itself. In Intensive Interaction:

- the teacher (or other practitioner) begins by subjectively getting to know the learner, getting a feel for the kinds of interactions which might be enjoyable, tentatively trying out various activities and tempos, and working towards an initial 'connection'. This is developed into a familiar repertoire of mutually enjoyable interactive games and playful ritualised routines based on the learner's own preferences;
- these interactions gradually become more sophisticated and reciprocal and the learner is enabled to take a more active role. Throughout the interactions the teacher modifies his or her interpersonal behaviours (facial expressions, body language, vocal and gaze behaviours) to become more interesting and meaningful. This often means imitating aspects of the learner's behaviour and using a much simplified linguistic code;
- the teacher makes careful use of watching, waiting and timing. This may involve joining in with the rhythms of the learner's behaviour or using bursts of activity interspersed with dramatically timed pauses;
- the teacher responds contingently to the learner's behaviour and creates a sense in which the activities are led by the learner who is given considerable control over their content and duration;
- the teacher imputes intentionality. He or she credits the learner with thoughts, feelings and intentions, attributes social meaning to actions, and responds to behaviours as if they have intentional and communicative significance.

These features of the approach clearly have a basis in what the psychological literature has highlighted as significant processes in caregiver-infant interaction. The repertoire of playful routines provides a safe and stimulating context for exploring the effects of one's behaviour (McConkey, 1989) and for learning the conversational rules of joint reference and turn-taking (Field, 1979). The absence of task means that what transpires is not judged against concepts of *right* or *wrong*, but rather that learning takes place in an overriding positive context. The teacher has a role in 'scaffolding' the experiences, providing the right amount of support in order that there is an optimum balance between the known and the challenge (Bruner, 1983). The modified interpersonal behaviours are like those which infants elicit from their caregivers, continually adapted to be most helpful to development at any particular stage (Stern, 1974; Pawlby, 1977). The simplified verbal input is like the 'motherese' which Snow (1977) found to be important in supporting language development. The emphasis on timing comes from the role that it plays in infant development in creating turn-taking (Kaye, 1977) and maintaining optimum levels of arousal (Beebe, 1985). The contingent responding creates the all important sense of efficacy (Goldberg, 1977), and the significance of imputing intentionality for facilitating the transition from pre-intentional to intentional communication can be seen in the work of Schaffer (1977) and Newson (1979).

The premise which underlies Intensive Interaction is that learning to communicate is not like learning a basic skill which can be task-analysed and its constituent sub-skills taught separately in a structured programme. Becoming an intentional communicator involves learning about oneself and others, learning that we can have an effect on others and that we can share meaning (Harding, 1982). To be effective communicators we have to *want* to communicate, to have a concept of what communication is all about, and to simultaneously apply many complex and inter-related skills. The best and possibly only model we have is in caregiver-infant interaction.

The usefulness and appropriateness of Intensive Interaction for learners with autism

Currently the main empirical evidence comes from:

- a single case study of Kris (one of the subjects in the in-depth efficacy study conducted at Harperbury Hospital School/Education Centre) (Nind, 1996);
- narrative case studies reflecting on the application of Intensive Interaction with individuals with autism (Knott, 1998; Taylor & Taylor, 1998);
- questionnaire and interview data from teachers who use Intensive Interaction with individuals with learning difficulties and autism.

Case study of Kris

Kris was diagnosed as a child with autism at four years, and the research referred was conducted when he was 28. Wing and Gould's triad of impairments (1979), used in the assessment of autism, were self-evident, and his rigidity of thought and behaviour was apparent in his preoccupation with filling and pouring beakers of water (*specific* beakers out of a *specific* window) to the virtual exclusion of all other behaviours. Communication impairment was evident in his lack of pre-verbal communication abilities, with the exception of placing the hand of a member of staff on the door handle or keys, in an instrumental pursuit of a goal, without any facial regard. Socially, Kris was withdrawn, remote and aloof; showed no interest in other people; and often pushed them aside.

Over the 12 months in which Intensive Interaction was evaluated, his developments were measured using systematic sequential observation, in real time (Sociability Observation Schedule) and using video analysis (see Figures 1a and b). Both were combined with assessment using the *Pre-Verbal Communication Schedule* (Kiernan & Reid, 1987) and an adaptation of the 'Cuddliness Scale 1 and 2' from the *Neonatal Behavioural Assessment Scale* (Brazelton, 1984). The observations were undertaken fortnightly for a five-month baseline period and for a 13-month intervention period. The published assessments were administered at the beginning and end of the two phases and partway through the intervention phase.

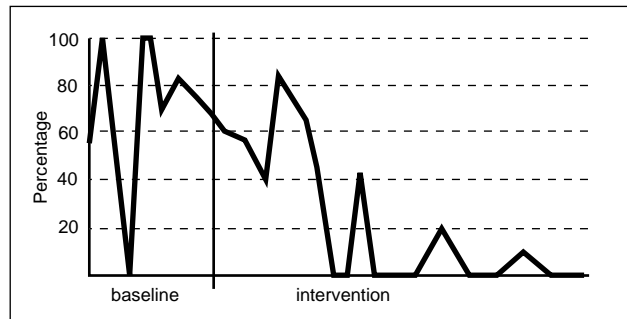
Figure 1: Graphical representation of developments in Kris from video analysis data

Scores show % age of 5 minute video sample.

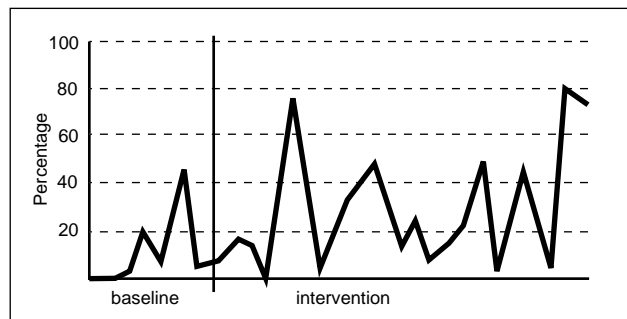
Baseline = 19 weeks duration.

Intervention = 57 weeks duration.

a) Percentage of total time in organised self-involvement (when alone).



b) Overall time in interactive behaviours (familiar staff attempting to engage interaction).



c) Pattern of engagement in interaction (familiar staff attempting to engage interaction).

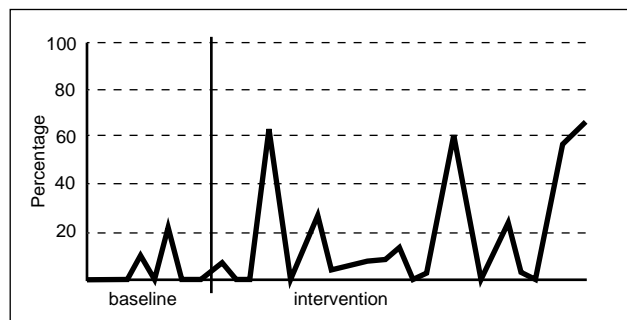
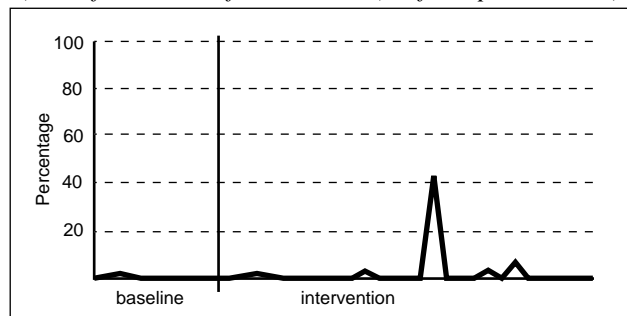


Figure 2: Graphical representation of developments in Kris from real time observation (Sociability Observation Schedule) data

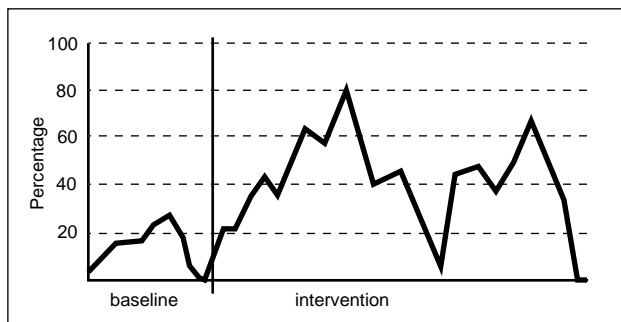
Baseline = 19 weeks duration.

Intervention = 57 weeks duration.

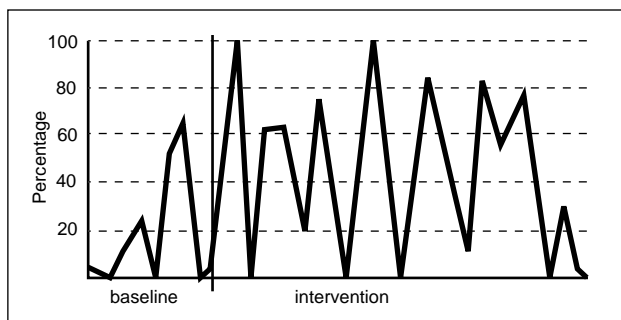
a) Score for initiation of social contact (% of total possible score).



b) Score for encouraging responses to the physical proximity of a familiar teacher.



c) Score for encouraging responses to the physical contact of a familiar teacher.



The graphs show developments of practical significance, although non-stable baselines make interpretations of a functional relationship with the intervention complex. Some specific new developments followed a stable baseline, making it highly plausible that the introduction of Intensive Interaction was responsible, including moving closer to the teacher; turning his posture towards her; starting to look at her face; and vocalising and smiling contingent on her activity. There were also increases in joint attention; a more frequent *interested* watching of people; a differentiation between familiar people and strangers; the suppression of *distressed* noises in response to another person's voice; regular engagement in one-to-one conversations of *meaningless* sounds; and moulding and relaxing when cuddled. Claims that Intensive Interaction was effective for Kris are supported by the analysis of a log of other potentially significant events, which shows an absence of any other plausible explanation. Obviously one cannot generalise from a single case study; learners with autism are individuals as much as any other learners and Kris may be atypical. It is noteworthy, however, that this one detailed case endorses the effectiveness of Intensive Interaction for learning, even when autism is a compounding factor.

Narrative case studies

The two additional case studies (Hewett & Nind, 1998) may provide weak empirical evidence, in that there were no structured observations and no attempts to be quasi-experimental, but they complement the case study of Kris with their rich descriptions and reflections. Knott (1998) describes Ben, a ten year-old with severe learning difficulties and autism in a residential special school, as remote, self-absorbed, anxious, often distressed, and unlikely to seek human contact, and describes their early attempts to use Intensive Interaction:

'We had to learn to be sensitive and responsive to Ben's behaviours and to interpret potential signals. We had to learn new skills as teachers for this kind of activity. The sessions could not be planned in the sense we were accustomed to. To get a good session we had to go along with Ben and he had to have control of how long the session was and the way it went... We had to learn to have the confidence to observe and watch Ben for those moments when we could follow his behaviours.'

(p.191)

She describes the feeling of being 'allowed in', the feelings of effectiveness gained from the first brief eye-contact, and the pleasure of interactive games:

'I clapped in imitation. Ben waited then clapped again becoming more and more giggly and playful. This felt like turn-taking, a conversation; it felt good. Ben had obviously enjoyed leading the game and stopped to give me *turns*. It was a pleasure to see this happening, Ben being playful and having fun with another person.'

(p.193)

The reflective account covers three years and Ben's developments included: giving sustained eye-contact; giving sustained attention; reaching out to staff; being more tolerant of noise and people around him; allowing others to play alongside him and share his activity; experimenting with vocalisations; using approximated words; and 'initiating communication in virtually every activity and setting' (p.202).

Taylor and Taylor (1998) give a similarly rich picture of the use of Intensive Interaction with their son Gary. Beth Taylor reflects on the transition in her interactions with Gary. Early on:

'... his interest couldn't be directed and the more I tried to direct the more he withdrew. All my attempts at making and shaping his play and behaviour to look more "normal" simply caused him to shrink away further into what was familiar and unthreatening to him. All my attempts were a threat to him, and I prevented him from being him...'

(p.212)

Later, seeing Intensive Interaction as non-directive, she relates joining in with his activity, imitating parts of it, watching in a relaxed way, 'not intruding or interrupting but giving him the opportunity to control my participation' (p.217). Steve Taylor summarises the progress he saw in Gary:

'I know that when I get home from work Gary will run to greet me, will flap or clap with excitement, and will probably give me a sloppy toothy kiss... he wants to be with us, his parents, and shows it. In turn, we find it so much easier to be with him, and we absolutely enjoy being with him. It is a wonderful turn-around.'

(p.221)

These accounts do not *prove* anything about how effective Intensive Interaction might be with other individuals with autism. They do, however, provide illustrative examples of what can happen, as seen by those involved, and they form part of a patchwork of empirical evidence on the usefulness of Intensive Interaction with this complex group.

Some practitioners' views

A recent study at Oxford Brookes University aimed to identify examples of good practice of Intensive Interaction and to find where and why the approach was being used. It provided illuminating data on the views of practitioners on the usefulness of the method, including those involved with learners with autism. Questionnaires were sent to 118 special schools and units across the four counties of Berkshire, Buckinghamshire, Hertfordshire, and Oxfordshire, and follow-up interviews were conducted with seven teachers who used the approach. They were asked what interactive approaches meant in their context, what factors encouraged or discouraged the use of Intensive Interaction in their schools, and what were the benefits and challenges.

Figure 3: Questionnaire data: special schools/units in Berkshire, Buckinghamshire, Hertfordshire & Oxfordshire

Questionnaires	Numbers	Percentage of Total Returned
sent	118	
returned	58	
using interactive approaches	40	69
using Intensive Interaction	11	19
providing for pupils with autism	27	47
providing for pupils with autism and using Intensive Interaction	11	19

As shown in the figure, approximately half of the questionnaires were returned, and of these approximately two-thirds identified themselves as using interactive approaches, and about one-fifth as using Intensive Interaction. Of the 58 responding schools, approximately half (27) included provision for pupils with autism and the 11 using Intensive Interaction were included in this group.

Responses to the question of what benefits had been found from using Intensive Interaction could be divided into benefits for the *pupils*, including:

- self-motivation;
- improved responsiveness;
- improved communication;
- greater acceptance of physical contact;
- greater tolerance and enjoyment of interaction;
- greater participation;
- the development of relationships;
- improved behaviours;
- greater calm.

And benefits for the *staff* including:

- improved motivation;
- feeling more positive about the children;
- being able to identify areas where productive work can be carried out;
- being more receptive to pupils' signals;
- improved observation abilities;
- versatility - 'can be used anywhere without special equipment'.

One teacher wrote:

'This had a great effect on her but more importantly on me as I perceived that it was me that had to change attitudes and approaches and not the child or the behaviour that needed to change.'

It is significant that in their responses to the questionnaire on the benefits of Intensive Interaction, the staff did not spontaneously volunteer any provisos for their pupils with autism. One might expect that when asked about what discourages them from using Intensive Interaction, and what challenges it presents, staff might have commented on the specific limitations of their pupils with autism. This was not the case and, as with the wider sample of responses, the discouraging or challenging factors were practical: staffing levels and time factors, or related to a conflict with the whole school ethos; lack of management support; lack of confidence; lack of wider commitment; age-appropriateness issues; accountability; and 'feeling OK in the face of Ofsted (Office for Standards in Education)', rather than related to any factors within the learners themselves. *Within-child* factors did not feature either in the comments of what discouraged teachers who did *not* use the approach.

An interesting initial pattern emerges from these data. Despite the interest in the theoretical debate on whether autism makes learning from this kind of naturalistic, interactive approach difficult, the issue is not at the forefront of teachers' minds, and the interview data support this observation. For the teachers interviewed, the decision to use Intensive Interaction was based on an assessment of individual pupils and their perceived difficulty in accessing the curriculum, regardless of whether they had autism or severe learning difficulties. One interviewee, who worked in a resource base for pupils with autism, talked about one distractible, unmotivated pupil who 'very much needed the approach'. Another, who taught in a school catering for a range of needs, spoke of the decision to use Intensive Interaction for her pupils with autism as being 'by accident rather than design', because the pre-verbal children in her class recently were those with autism. A headteacher of a school for pupils with severe learning difficulties explained that the approach was used with two main groups in her school: those with profound and multiple learning difficulties and those with autism. With both groups the decision to use Intensive Interaction was based on a perception of need and the experience of it in practice. The respondent was clear about the benefits and

described interactive communication as 'a useful tool for creating that [much needed] safety and security' for pupils with autism and, by taking away the demands and threats, enabling them to learn that the teacher could help them and respond to their needs.

Reservations were expressed by a headteacher who was concerned about the level of intrusion on pupils defending their personal space, and by a teacher who was unsure about the expectation that pupils with autism should enjoy interactions with people. The former, nevertheless, still felt that Intensive Interaction could offer a solution to such difficulties and both of these interviewees, in common with the entire group, had an individual success story to tell.

The interviews probed the teachers on the issue of whether their pupils with autism could learn communication and sociability in this naturalistic way. None had any doubts that it was possible and one was quite definite: 'I

don't think they can learn it in any other way really, not learn it and apply it'.

Conclusion

Interactive approaches in special education (particularly in the arena of severe learning difficulties) were much discussed in the 1980s (Collis & Lacey, 1996). Although interest is less in an era of an emphasis on curriculum content with the National Curriculum, such approaches continue to develop and to be important (Garner, Hinchcliffe & Sandow, 1995). Similarly advances in the use and understanding of interactive approaches, although not necessarily attracting the most attention, are evident in the field of autistic spectrum disorders. There is, therefore, every reason for pupils whose learning disabilities are compounded by autism to be included in the group, in which interactive approaches are used, and for Intensive Interaction itself to be adopted as a useful and effective strategy.

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