

# School Psychology International

<http://spi.sagepub.com/>

---

## **The incredible years therapeutic social and emotional skills programme: A pilot study**

Judy Hutchings, Tracey Bywater, Nicole Gridley, Christopher J. Whitaker, Pam  
Martin-Forbes and Stella Gruffydd

*School Psychology International* published online 15 August 2011

DOI: 10.1177/0143034311415899

The online version of this article can be found at:  
<http://spi.sagepub.com/content/early/2011/08/13/0143034311415899>

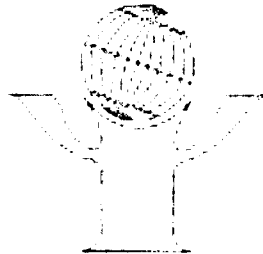
---

Published by:



<http://www.sagepublications.com>

On behalf of:



International School Psychology Association

**Additional services and information for *School Psychology International* can be found at:**

**Email Alerts:** <http://spi.sagepub.com/cgi/alerts>

**Subscriptions:** <http://spi.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.com/journalsPermissions.nav>



# The incredible years therapeutic social and emotional skills programme: A pilot study

**Judy Hutchings**

Bangor University, UK

**Tracey Bywater**

University of York, UK

**Nicole Gridley**

Bangor University, UK

**Christopher J. Whitaker**

Bangor University, UK

**Pam Martin-Forbes**

Bangor University, UK

**Stella Gruffydd**

Ysgol Bro Llew, UK

## Abstract

The Incredible Years (IY) universal child Classroom Dinosaur and Teacher Classroom Management programmes are delivered in all 102 primary schools in Gwynedd County, Wales. This article describes a pilot study of the IY Therapeutic (small group) Dinosaur School social and emotional coaching programme, developed as a treatment programme, in one such school. The aim was to assess the added benefit of this programme for young high-risk children in order to inform a larger randomized controlled trial. Twenty-four children, aged between 5- and 9-years-old, were identified as likely to

---

## Corresponding author:

Professor Judy Hutchings, Centre for Evidence Based Early Intervention, Nantlle Building, Normal Site, Bangor, Gwynedd, LL57 2PZ, UK

Email: [j.hutchings@bangor.ac.uk](mailto:j.hutchings@bangor.ac.uk)

benefit from the programme. Twelve children received ten two-hour sessions, the other 12 were wait-list control. The programme was reduced to ten weeks to fit the school and research timetable. A full set of pre- and post-intervention data was collected for 19 children, using child and researcher completed measures. No significant differences between conditions were found post-intervention. Sub-sample analysis of 12 children rated by teachers as high-risk demonstrated significant benefits for the intervention children by comparison with control in terms of increases in problem-solving skills. These findings suggest an important role for psychologists in training and supporting schools in implementing the evidence-based IY interventions as is currently happening across Wales. The study also provided guidance on targeting and evaluation measures for a more rigorous study using the full programme.

**Keywords**

antisocial behaviour, prevention, small group DINA, social and emotional skills

Children with social and emotional skill deficits struggle to engage in the educational curriculum, are uncooperative with teachers and likely to behave antisocially (Raver, 2002). They also receive less peer support (Coie, 1990). Failure to acquire these skills results in long-term emotional and behavioural problems (Eron, 1990), school dropout, substance abuse and violent criminality (Loeber & Farrington, 2000). Teachers can spend more time managing disruption (Greenberg et al., 2003) than delivering the curriculum (Joseph, Webster-Stratton, & Reid, 2006; Latham, 1997).

The Incredible Years (IY) programmes for parents, children, and teachers have international evidence for both the treatment and prevention of conduct disorder. They are based on psychological principles and psychologists have played a key role in their development, research, and successful implementation (Baker, Clark, Crowl, & Carlson, 2009; Webster-Stratton et al., 2001). The Therapeutic Dina (TD) programme is a treatment programme that reduces conduct problems and improves children's peer relationships and problem-solving skills (Webster-Stratton & Reid, 2003). It is delivered to groups of six children over 18–22 weeks in two hourly sessions. The Classroom Dina curriculum (CD) follows the same curriculum and is delivered class-wide in 20-minute lessons throughout the school year (Webster-Stratton, Reid, & Stoolmiller, 2008). The Teacher Classroom Management (TCM) programme introduces teachers to effective classroom management strategies (Webster-Stratton & Reid, 2002).

The county of Gwynedd invested in the IY TCM and CD programmes. By 2009 they had introduced them into all of their 102 primary schools and they quickly received positive external school inspection reports (Hutchings, Williams, Martin, & Pritchard, 2011). Their introduction was co-ordinated by an educational psychologist. Pilot studies of the TCM and CD programmes showed good results (Hutchings, Daley et al., 2007; Hutchings, Lane, Owen, & Gwyn, 2004) and a randomized controlled trial (RCT) of the TCM programme showed significant

improvements in teacher and child behaviour (Hutchings, Martin, Daley, Whitaker, & Williams, 2011).

The rationale for this pilot study was that, despite satisfaction with the TCM and CD programmes, teachers recognized that some children needed additional support and there was interest in whether additional coaching in the treatment version of the Dina programme (TD) would benefit high-challenge children. This created an opportunity to evaluate the TD programme in a way that had not previously been done, as an additional support to young high-risk children who had TCM trained teachers and were receiving the universal CD curriculum. The study was designed to inform a larger RCT and to explore whether the programme could significantly improve child social and problem-solving skills and reduce behavioural difficulties over and above any benefits derived from the TCM and CD programmes.

## Method

This was a small-scale pilot study with pre- and post-intervention measures.

### *The intervention*

The headteacher, one classroom assistant and one class teacher undertook TD training, delivered by the first author. TD is typically delivered over 18–22 sessions however, due to constraints on the research timetable, it was only possible to deliver ten, weekly, two-hour sessions. The social and emotional skills curriculum is similar to the CD version of the programme but the small group format allows for very high rates of praise and incentives and increased opportunities for children to role-play effective social and problem-solving skills.

### *Participants*

Teachers identified 24 pupils (six girls and 18 boys) aged 5- to 9-years-old ( $M = 7.17$ ,  $SD = 1.44$ ), 23% of a total of 104 pupils across four classes. Half of the children, two groups of six, received the intervention and half were wait-list controls.

### *Measures*

*Teacher Strengths and Difficulties Questionnaire (TSDQ; Goodman, 1997)*. This is a 25-item behavioural screening inventory. The clinical cut-off for concern on total difficulties is 16 (see [www.infosdq.org](http://www.infosdq.org)).

*Wally Problem Solving Task (Webster-Stratton, Reid, & Hammond, 2001)*. Fifteen different problematic social situations are presented pictorially to the child and the child's solutions are rated for quantity and quality (see [www.incredibleyears.com](http://www.incredibleyears.com)).

*Teacher-Pupil Observation Tool (T-POT, Martin et al., 2010)*. The T-POT is an objective observational tool designed to identify a wide range of teacher and child classroom behaviours.

### *Data collection*

Intervention measures were collected from teachers and pupils and by researchers who undertook blind classroom observations. Baseline measures were collected in January/February, the intervention was delivered between March and May and follow-up measures were collected in June, ensuring that all children remained in the same classes for the duration of the study. Teachers completed the TSDQ. One teacher administered the Wally Problem Solving Test to the entire sample of children. Observers blind to condition, and inter-rater reliable (Martin et al., 2010) undertook the T-POT observations.

## **Results**

### *Baseline description*

There were no significant differences, at baseline, between intervention ( $M = 19.50$ ,  $SD = 5.45$ ) and control children ( $M = 18.17$ ,  $SD = 6.51$ ) on the TSDQ or on any T-POT categories. There were significant differences between the groups on the Wally Problem Solving task with intervention children showing significantly less solutions than controls ( $t(22) = 2.135$ ,  $p = 0.045$ ,  $d = 0.95$ ).

### *Outcomes*

A full set of pre- and post-intervention data, available for 19 children, revealed no significant additional benefits for intervention group children although there were some improvements for both groups over the four-month period. Given the intended target population for the TD intervention, a subgroup analysis was undertaken to establish whether there were differences for the children rated as giving significant cause for concern on the TSDQ.

### *Subsample analysis*

Complete data were available for 12 high-risk children (eight intervention and four control) at both time points. Using paired  $t$ -tests on the Wally Problem Solving Test significant increases were found for the intervention group only in both the total number of solutions, number of positive solutions, and pro-social responses between baseline and follow-up (Table 1). No significant changes were shown for the control group.

Analysis of T-POT observations revealed that overall intervention children showed increased positive behaviours towards teachers, and likewise their teachers

**Table 1.** Paired *t*-tests for the Wally Problem Solving Task subscales pre- and post- intervention (control *n* = 4, intervention *n* = 8)

	Intervention group ( <i>n</i> = 5)		Control group ( <i>n</i> = 4)		t-value	
	T1 M (SD)	T2 M (SD)	T1 M (SD)	T2 M (SD)	Intervention	Control
Total solutions	10.63 (1.06)	13.38 (1.68)	13.00 (2.45)	12.25 (2.22)	-4.660 0.002 1.65	0.417 0.704 0.21
Total pro-social	8.25 (2.92)	11.75 (2.86)	11.75 (3.50)	11.00 (.82)	-3.500 0.010 1.24	0.365 0.740 0.18
Total positive	3.88 (2.53)	6.80 (3.12)	8.25 (2.87)	6.75 (.96)	-2.959 0.021 1.05	1.441 0.245 0.72

showed an increase in positive behaviours towards them. However, these did not reach statistical significance. Control group children, by contrast, demonstrated a reduction of positive behaviours towards their teachers, and their teachers showed reduced positive behaviours towards these children. However, these differences also did not achieve statistical significance.

## Discussion

Teachers trained in TCM methods, and who delivered the CD universal social and problem-solving skills curriculum, identified children, who represented 23% of the pupils in their classes, whom they thought would benefit from additional social, emotional, and problem-solving skills coaching provided by the TD programme. Half of the children received the intervention. Data for the full sample did not show significant differences in outcomes between intervention and control children, and both groups tended to improve over time, however, significant increases in problem-solving skills were demonstrated for children with clinical level difficulties, for whom the TD therapeutic intervention was developed.

The ten-week version of the TD programme decreased disruptive behaviour and significantly increased problem-solving skills for identified high-risk children. The 18–22 week version may yield stronger effects and future research is needed to investigate this possibility.

The study has a number of limitations. The sample represented 23% of all children within the classes and included sub-threshold children who may not have required/benefited from additional social and emotional skills coaching. Due to school and research timetabling constraints, the curriculum was delivered

in ten as opposed to the 18–22 sessions specified in the manual and is likely to have reduced programme potency. Finally, teachers were not blind to condition, however, this would not have affected the results of the Wally Problem Solving test or the blind T-POT observations.

The study has some strengths. This is the first trial of the TD programme as an adjunct to the TCM and CD programmes. The results suggest the TD programme provides added benefits for children exceeding the clinical cut-off on the total TSDQ score. Data were collected from multiple sources, teachers, children, and independent observation and the study has informed selection criteria and evaluation tools in the larger RCT trial (Bywater, Hutchings, Whitaker, Evans, & Parry, 2011) in which Gwynedd Education Service are currently participating. This RCT of the TD programme in 20 schools will establish the effectiveness of the TD programme with high-risk children in schools where teachers have undertaken IY TCM training and are delivering the CD curriculum.

The need to support effective teacher classroom management skills and to establish a social and emotional skills curriculum in schools is core work for educational psychologists who are ideally placed to train and support teachers, as is increasingly happening across Wales. They can also make a useful contribution to the identification and targeting of children needing additional help and support delivery of the TD programme to groups of children as part of their therapeutic work with schools.

The Welsh Assembly Government has monitored the developments in Gwynedd and is now funding training and supervision in the IY parent, child, and teacher programmes, delivered by one clinical and two educational psychologists, for education based staff across Wales. Gwynedd Education service has continued to work with Bangor University and is now also collaborating in researching the brief, four-session, school readiness parent programme delivered to parents as their children are starting school (Cooper, 2011).

## References

- Baker, J. A., Clark, T. P., Crowl, A., & Carlson, J. S. (2009). The influence of authoritative teaching on children's school adjustment. Are children with behavioural problems differentially affected? *School Psychology International*, *30*, 374–382, doi: 10.1177/0143034309106945.
- Bywater, T., Hutchings, J., Whitaker, C. J., Evans, C., & Parry, L. (2011). The Incredible Years therapeutic dinosaur programme to build social and emotional competence in Welsh primary schools: Study protocol for a randomised controlled trial. *Trials*, *12*–39, doi: 10.1186/1745-6215-12-39.
- Coie, J. D. (1990). Toward a theory of peer rejection. In S. R. Asher, & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 365–398). Cambridge: Cambridge University Press.
- Cooper, K. (2011). Researching the School Readiness Parent Programme. Paper presented at the Incredible Years Wales North Wales Conference Day, 27 January, 2011, Bangor University. Retrieved from [www.incredibleyears.wales.co.uk](http://www.incredibleyears.wales.co.uk)
- Eron, L. D. (1990). Understanding aggression. *Bulletin of the International Society for Research on Aggression*, *12*, 5–9.

- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology, Psychiatry and Allied Disciplines*, 38, 581–586, doi: 10.1111/j.1469-7610.1997.tb01545.x.
- Greenberg, M. T., Weuissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school based prevention and youth development through coordinated social, emotional and academic learning. *American Psychologist*, 58, 466–474, doi: 10.1037/0003-066X.58.6-7.466.
- Hutchings, J., Daley, D., Jones, K., Martin, P., Bywater, T., & Gwyn, R. (2007). Early results from developing and researching the Webster-Stratton Incredible Years Teacher Classroom Management training programme in North West Wales. *Journal of Children's Services*, 2(3), 15–26. Retrieved from <http://metapress.com/content/121409>
- Hutchings, J., Lane, E., Owen, R. E., & Gwyn, R. (2004). The introduction of the Webster-Stratton Classroom Dinosaur school programme in Gwynedd, North Wales: A pilot study. *Educational and Child Psychology*, 21(4), 4–15. Retrieved from <http://www.bps.org.uk/>
- Hutchings, J., Martin, P., Daley, D., Whitaker, C. J., & Williams, M. (2011). The impact of a teacher classroom management programme on the classroom behaviour of children with and without behaviour problems. Manuscript submitted for publication.
- Hutchings, J., Williams, M. E., Martin, P., & Pritchard, O. R. (2011). Levels of behaviour difficulties in young Welsh schoolchildren. *Welsh Journal of Education*, 15, 103–115.
- Joseph, G. E., Webster-Stratton, C., & Reid (2006). *Fostering social and emotional competence: Implementing Dina Dinosaur's social skills and problem solving curriculum in inclusive early childhood programs*. Unpublished manuscript. Parenting Research Clinic, University of Washington, Seattle, USA.
- Latham, G. L. (1997). *Behind the schoolhouse door: Eight skills every teacher should have*. Logan, UT: Utah State University.
- Loeber, R., & Farrington, D. P. (2000). Young children who commit crime: Epidemiology, developmental origins, risk factors, early interventions, and policy implications. *Development and Psychopathology*, 12, 737–762, doi: 10.1017/S0954579400004107.
- Martin, P. A., Daley, D., Hutchings, J., Jones, K., Eames, C., & Whitaker, C. J. (2010). The Teacher-Pupil Observation Tool (T-POT): The development and testing of a new classroom observation measure. *School Psychology International*, 31, xx–xx, doi: 10.1177/0143034310362040.
- Raver, C. C. (2002). Emotions matter: making the case for the role of young children's emotional development for early school readiness. *Social Policy Report*, 16(3), 1–20, Retrieved from <http://ideas.repec.org/p/har/wpaper/0206.html>
- Webster-Stratton, C., Mihalic, S., Fagan, A., Arnold, D., Taylor, T., & Tingley, C. (2001). *The Incredible Years: Parent, teacher, and child training series (IYS)*. Unpublished manuscript, Center for Violence Prevention, Institute of Behavioural Science, University of Colorado, Boulder, CO.
- Webster-Stratton, C., Reid, J., & Hammond, M. (2001). Social skills and problem-solving training for children with early-onset conduct problems: Who benefits? *Journal of Child Psychological Psychiatry*, 42, 943–952, doi: 10.1111/1469-7610.00790.
- Webster-Stratton, C., & Reid, J. M. (2002). *The Incredible Years classroom management teacher training program: Content, methods, and process*. Unpublished manuscript, Incredible Years, University of Washington, Seattle.



- Webster-Stratton, C., & Reid, M. J. (2003). Treating conduct problems and strengthening social and emotional competence in young children (ages 4 –8): The DINA dinosaur treatment program. *Journal of Emotional and Behavioural Disorders, 11*(3), 130–143, doi: 10.1177/10634266030110030101.
- Webster-Stratton, C., Reid, J., & Stoolmiller, M. (2008). Preventing conduct problems and improving school readiness: Evaluation of the Incredible Years teacher and child training programs in high-risk schools. *Journal of Child Psychology and Psychiatry, 49*, 471–488, doi: 10.1111/j.1469-7610.2007.01861.x.

**Professor Judy Hutchings** has worked in North Wales since 1973, for many years as a Consultant Clinical Psychologist, working with children with significant behavioural difficulties. Since her retirement from the NHS in 2010, she retains an honorary NHS contract. She is Director of the Centre for Evidence Based Early Intervention (CEBEI) research team at Bangor University where she has worked part-time since 1988. She undertakes research with referred children and their families and early preventive work with parents, children, and teachers. She has held grants totaling over £1.5 million, has published extensively and, since 2006, has worked with the Welsh Assembly Government providing training and consultation to services across Wales. She has provided evidence on effective early intervention to government departments in England and Wales and been an expert witness to the National Institute for Health and Clinical Excellence (NICE) in their determination on conduct disorder. In 1999 she was awarded Fellowship of the BPS, in 2004 she was Welsh Woman Educator of the year, and in 2010 received the Institute for Welsh Affairs Inspire Wales Educator Award. *Address:* Centre for Evidence Based Early Intervention, Nantlle Building, Normal Site, Bangor, Gwynedd, LL57 2PZ, UK. Email: j.hutchings@bangor.ac.uk

**Dr Tracey Bywater** is Reader in Enhancing Parental Input in Supporting Children's Success in School at York University, Institute of Effective Education. She was previously a Research Fellow in the School of Psychology, Bangor University, where she was the University Lead on a Lottery-funded project to improve the social and emotional well-being of children attending Gwynedd schools after having worked on several other randomized controlled trials (RCTs) across Wales. Her area of interest and expertise lies in the design and implementation of RCTs of evidence-based parent and school interventions to assess behavioural and health outcomes. She was the Lead Researcher for Dartington Social Research Centre during the set-up period for three large RCTs implemented across Birmingham to improve children's social and emotional competence as part of their Brighter Futures Initiatives. She still works with Dartington and was for some time an advisor to the research team at the National University of Ireland, Maynooth, Ireland. *Address:* Institute for Effective Education, Berrick Saul Building, University of York, Heslington, York, YO10 5DD, UK.

**Nicole Gridley** read Psychology at Bangor University, graduating in 2007, and has recently completed her Masters degree in the Foundations of Clinical Psychology also at Bangor. She was awarded a 12-week GoWales placement in 2009 to assist in the pilot study of the evaluation of the Dina School Programme. Following this she was given an extended contract to assist in the data collection of the evaluation of the Toddler Programme with Nia Griffith. Nicole has recently been awarded a three-year part-funded PhD with the School of Psychology and Incredible Years Cymru to develop an observational tool that will assess emerging language in toddlers aged 1- to 3-years-old. Nicole intends, following completion of her PhD, to continue working in the area of child development. *Address:* School of Psychology, Bangor University, Bangor, Gwynedd LL57 2AS, UK.

**Christopher J. Whitaker** received an MSc degree in Mathematical Statistics from the University of Manchester in 1974. Until 1980 he was a Research Associate in the Department of Occupational Health, University of Manchester. He has worked at Bangor University since 1981. Initially he was a Lecturer in Statistics in the Faculty of Science, in 2004 he became the University Statistics Advisor in the School of Psychology and and from 2008 he has been a Senior Statistician working in the North Wales Organization for Randomized Trials in Health. His interests cover the application of statistics in the psychological and biomedical sciences. *Address:* School of Psychology, Bangor University, Bangor, Gwynedd LL57 2AS, UK.

**Dr Pam Martin-Forbes** graduated with a BSc (Hons) in Psychology and Health Psychology from Bangor University in 1999, completing a MSc in Research Methods in Psychology in 2005. She gained her PhD in 2010, which involved researching the Incredible Years Teacher Classroom Management (TCM) programme. She developed the Teacher-Pupil Observation Tool (T-POT) in order to evaluate the TCM programme as it was rolled out in Gwynedd primary schools. The T-POT has since been utilized as a primary outcome measure in various research studies. *Address:* School of Psychology, Bangor University, Bangor, Gwynedd LL57 2AS, UK.

**Stella Gruffydd** gained a joint honours degree in Welsh and Music from Aberystwyth University and began her teaching career in 1987 at Trefriw Primary School. She taught at Llanllyfni Primary school from 1990–2000, becoming headteacher in 1997. From 2000–2005 she was Director of 'pasg'—an Educational Agency located at the School of Education, Bangor University—producing Welsh National Curriculum Tests (Key Stage 2). She is also a Lecturer and Tutor in Teacher Training and has been a NPQH Tutor and Assessor since 2003. She became headteacher of Ysgol Bro Lleu, Penygroes, Gwynedd in 2005. *Address:* Ysgol Bro Lleu, Penygroes, Caernarfon, LL54 6RE, UK.