

PATHS

Promoting Alternative Thinking Strategies

“Norfolk’s Experience” One year on from implementation



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“Children are most likely to actualise their highest potential at any given point in time when there is a developmental integration of feelings (and emotional language), behaviour, and cognitive processes, and this can be seen as a continual dynamic process that will achieve positive self-esteem and a healthy personality” (1995) Greenberg, Kushche, Cook and Quama.

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Introduction

Promoting Alternative Thinking Strategies (PATHS) has been implemented with eight schools as part of Norfolk's Targeted Mental Health in Schools (TaMHS) Pathfinder programme which was initiated by the then Department of Children Schools and Families (DCSF) in 2008. TaMHS aim is to support Local Authorities to **develop innovative evidence based models of mental health support in schools**. As one of the first 25 TaMHS projects, Norfolk's pathfinder has been in existence since September 2008 and was initially funded until March 2011.

Eight schools and 1400 children were selected to pilot the evidence based PATHS programme as a **whole school approach**. Delivery of the programme began with Key Stage 1 pupils in September 2009 and Key Stage 2 children from Easter 2010.

This report outlines the impact and learning gained from the first year's implementation and details some of the improvements seen in the children.

What is PATHS ?

PATHS is a **whole school evidenced based early intervention-prevention** programme which was designed twenty two years ago by Professors' Greenberg and Kushche to use with all children aged between **5 and 11 years**. It has been empirically proven to be successful in **enhancing the social competence and social understanding** of children, as well as **facilitating educational processes in the classroom**. PATHS origins are rooted in child and social-emotional development theory, and the structure of the programme has been created to support children develop healthy neuro-pathways.

PATHS has been designed to be taught by classroom teachers (initially with support from a project team) as an **integrated component** of a **spiralling curriculum**:

- The curriculum consists of set lessons linked to a scheme of work for each year group with pictures, photographs and additional materials to support extension and home based activities.
- The resources are comprehensive so staff only need a small amount of time to prepare and familiarise themselves with lessons.
- PATHS provides a framework to enable children to develop the skills to actively participate in restorative work.
- PATHS provides a scaffolding structure where core concepts are re-visited and built on year on year, providing depth and quality of learning.
- The lessons are relevant to children's individual experiences, as they encourage children to recall personal experiences, feelings and thoughts and make informed choices
- Parental / carer engagement and involvement is a key feature of PATHS with regular information being sent home to ensure families are introduced to new concepts as they are delivered in school. Information is also provided on extension activities that can be completed at home and school.
- Activities and strategies are incorporated to be used inside (and outside) the classroom throughout each day

- Norfolk is the first county to use an approved anglicised version of the PATHS teaching materials which reflect British language, culture and environment.

International Evidence

There is a huge body of international research evidencing the effectiveness of PATHS and further information can be found in Appendix 1. PATHS is one of the few Social Emotional Learning programmes that has been well-researched using strong experimental designs. Findings demonstrate that PATHS is successful in both significantly increasing protective factors for healthy development and in reducing behavioural and emotional problems.

An on line pupil survey complements the programme and focuses on three main areas:

- **aggression and disruptive behaviour**
- **concentration attention**
- **social and emotional competence**

UK Evidence

There is a growing body of evidence within the UK which demonstrates PATHS effectiveness, and more information can be found in appendix 1. It is recognised that the most effective Early Intervention occurs early in a child's life, but there are also several opportunities to continue social or emotional development or intervene early in primary or secondary school. The recent UK Government commissioned Allen review (2011) Early Intervention- The Next Steps recommends PATHS as one of the 19 evidence based effective early intervention programmes which should be considered by Local Authorities when developing an early intervention strategy¹.

Norfolk's Evidence

Local research undertaken during the first year of implementation shows a demonstrable positive difference for the children that took part.

During the first year research data was gathered from a variety of sources:

- An on-line pupil survey completed by classroom teachers (this survey is similar to the SDQ outcome measure and provided with the programme)
- An on-line school staff satisfaction survey
- A focus group of school staff, In-House Coordinators² and Headteachers who led the implementation of PATHS facilitated by an independent researcher. **NB: the research was led by an Assistant Educational Psychologist as part of a PHD attached to Bristol University.**
- A children's satisfaction survey
- Lesson observations and
- Evaluation data gathered from PATHS training sessions with staff, MSA's and parents

¹ For a copy of the report please access

www.centreforsocialjustice.org.uk/client/downloads/EarlyInterventionpaperFINAL.pdf

² **In- House Coordinator**- A staff member who had allocated non contact time each week to observe peers, liaise with the Coach and develop PATHS as a whole school approach.

Findings from Norfolk's First Year Implementation 2009-2010

As PATHS was implemented as part of the TaMHS pathfinder project it was essential we evaluated both the impact and learning from the programme. All eight PATHS schools agreed to participate in the evaluation and outlined below are the initial findings from the first year's implementation.

It is also important to note that research shows PATHS effectiveness is maximised by schools which:

- Adopt a whole-school approach
- Implement PATHS for more than a year and
- Support the promotion of good mental health as opposed to the prevention of mental illness.

To ensure we felt confident in the data, we tri-angulated the pupil, staff and observational data to analyse the findings. The pupil survey that accompanies the programme was completed by class teachers in September 2009 prior to the implementation of PATHS, and then repeated in July 2010 at the end of the first year. The data below shows the percentage of improvement made by the children since the implementation of PATHS. *(For a complete set of the measures and the difference made please refer to appendix 2).*

At the end of the first year our local findings mirror the international findings, and show improvements for all children, with the greatest difference being demonstrated in the area of **social and emotional competence**.

The data shows

- PATHS has had a positive impact on the self-esteem of 90% of children participating in the programme.
- The children's ability to empathise with the feelings of others had increased by 86.3%
- 81.8% of children were better able to resolve conflicts
- 77.2% of children were better able to problem solve issues with an emotional component
- 86.3% of school staff said the ethos of the class had been positively affected by PATHS throughout the year
- Findings show that since the implementation of PATHS, children were able to problem solve emotional issues, independently more often, allowing staff to spend less time on managing disruptive behaviour
- School staff reported PATHS had been integrated as a whole school approach across the wider curriculum without difficulty
- PATHS had positively supported staff to reflect on their own practice and use of language
- Staff felt confident and empowered to deliver PATHS following the initial training and felt fully supported to engage with the programme.

The teacher satisfaction survey which was completed at the end of the first year (table 1)

demonstrates the number of teachers who felt PATHS had made a positive difference to their classroom.

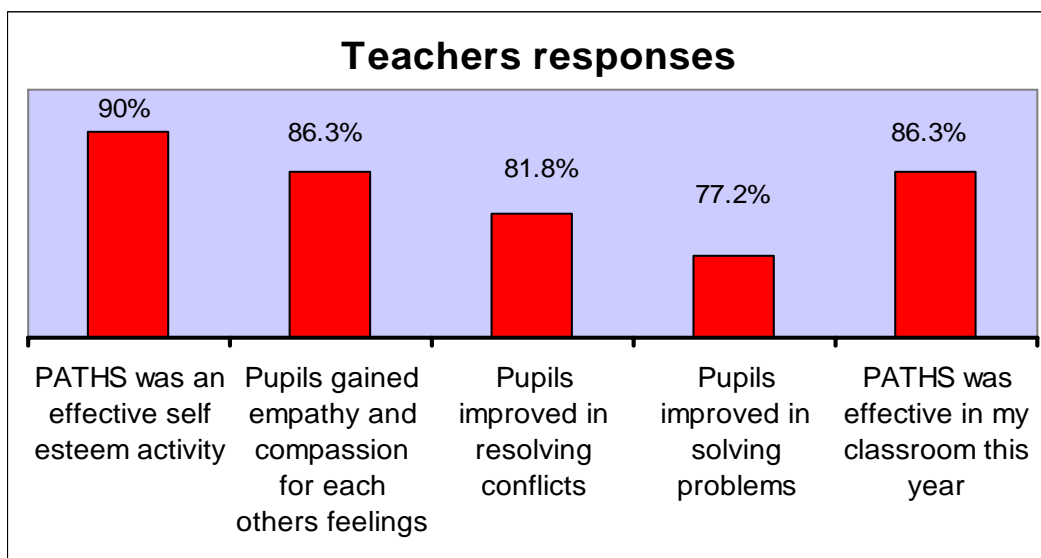


Table 1: Teachers responses

The In-House Coordinators³ (IHC's) who are responsible for maintaining the fidelity⁴ of the programme and developing PATHS as a whole school approach referred to a number of examples where by children are able to use the practical elements of learning from PATHS.

'The children can now line up without difficulty in the hall, there is none of the behaviour that we had before, I think it's down to giving each other compliments in PATHS lessons they don't push and shove because they see that its not polite'. (IHC 2010)

'Children are better able to stop and think before they act, I see them in the playground doing Turtle or taking deep breaths it's made a world of difference ...there's a much better atmosphere out there now'. (IHC 2011)

The research shows PATHS encouraged teachers to focus and act upon children's emotional wellbeing. The greatest impact demonstrated during the first year was in PATHS ability to support children improve their social and emotional competence and help them address the difficulties they experience with self-esteem and friendships. The difficulties and the improvements seen, reinforce the focus PATHS places on providing opportunity for children to establish, maintain and manage behavioural changes.

³ **In- House Coordinator-** A staff member who had allocated non contact time each week to observe peers, liaise with the Coach and develop PATHS as a whole school approach.

⁴ **Fidelity-** ensuring the key concepts are taught with depth, quality, and consistency, plus evidence of integrating PATHS into other areas of the curriculum.

Engaging parents with PATHS is one of the core elements of the programme. Many parents had participated in information / training sessions and become actively involved in the compliments process. In asking the parents what they knew about PATHS and whether they had seen any signs of PATHS being used at home parents said:

My child had:

'Showed me how to do turtle⁵ to calm down at home, at first I didn't know what he was doing but he said it was what he did in school when he got angry' (Parent 2010)

Another commented on:

'My son he's in reception, he used to get really angry and thrash around the place, especially at home when he didn't get what he wanted, we tried everything, nothing worked. He came home from school one day and when he got angry he stood still holding his arms around himself, I asked him what he was doing and he said Turtle...He still gets angry but he doesn't tear around the place and he can tell us what's bothering him ...his sister has the traffic light⁶ poster on the door to her room ...we use it to remind her when she's in a temper' she says that it helps her'

Another parent talked about using the compliments process:

'My daughter has the compliments from her class stuck on the wall of her bedroom, she says that when she gets 'down' she reminds herself that she has friends who think a lot of her'

Pupil Data -Reception and Year One

Teachers of 482 reception and year one (R&Y1) children completed an on-line survey in September 2009 and again in July 2010. The survey consists of a series of questions linked to three main areas:

- **aggression and disruptive behaviour**
- **concentration attention**
- **social and emotional competence**

Results are reported according to the most significant change during the course of the first year. (For a complete set of the measures and the difference made please refer to appendix 2). The following figures show the percentage of improvement made by children.

- 19.3% now engage in activities for a sustained period of time

⁵ **Turtle**- This is a calming down technique taught to Reception and Year 1 children

⁶ **Traffic Lights- Control signals**- This is claming down mechanism taught to children in years 2 to 6.

- 19.5% of children showed a marked improvement in their ability to share materials and play cooperatively
- 18.3% of children were more able to self regulate their emotions, calm down and cope with disappointment and frustration in a more positive way. This resulted in a more positive classroom environment and better relationships between children and their peers
- 18.8% of children had increased their ability to recognise and label their own feelings and those of others
- 15.3% children were better able to listen to the views of others
- 11.3 % of children were better able to independently manage their aggressive and or disruptive behaviour
- 11.3% of children increased their ability to resolve problems with others thus, allowing for more time to be spent teaching rather than focusing on disruptive behaviour

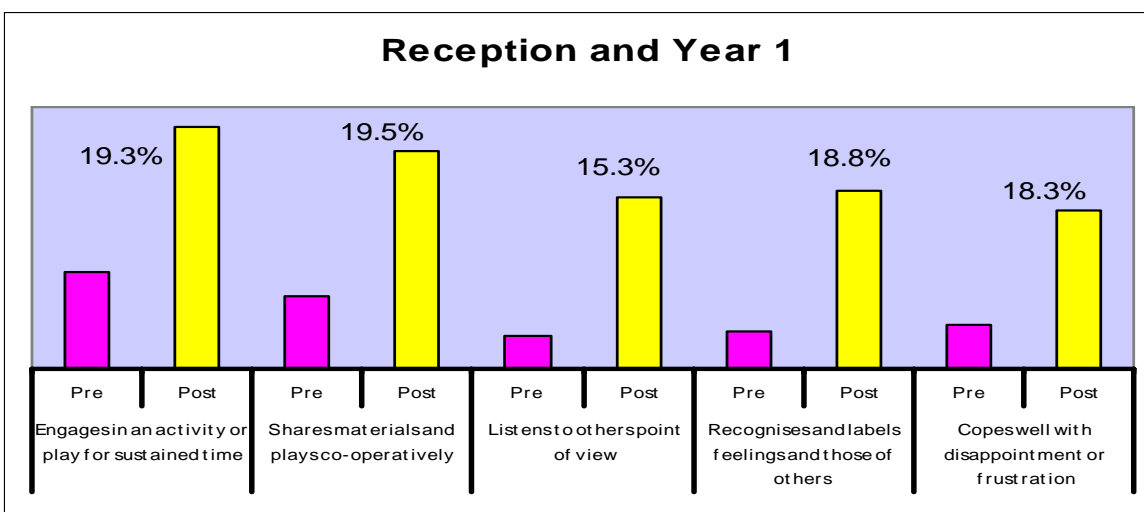


Table 2: Reception & Year 1 responses

It is important to acknowledge that one would expect to see improvements over time in children's concentration, attention and conduct skills during the first school year, especially as these are areas addressed in the Early Years Foundation Stage (EYFS) Curriculum. However, what does appear different is the measure of positive change shown in social / emotional competence as the changes in these areas would not automatically be expected to this degree in R&YR1 children. Add to this the teachers' comments / observations and it seems clear that these improvements are well over and above what would normally be expected.

Pupil Data –Year Two

At the time of writing this report all three year groups (R, YR1&2) had been delivering PATHS for one academic year. As the on-line survey for Year 2 to 6 children uses a slightly different set of statements from the R&YR1 survey, it was decided to demonstrate the findings separately. Combined with this, it was felt it would be beneficial to measure the difference seen in the children in Year 2 separately as there are fewer settling in factors for Yr2 children than in R&YR1.

The number of children in Year 2 was 180, and when we explored the data we found the trend for improvement was very similar to R&YR1 findings.

The data below shows the percentage of improvements made by children at the end of the first year of implementation-one academic year.

- 21% fewer children now become easily irritated with difficult tasks
- 11.6% more children could perform at the expected level for their age
- 18% showed an improvement in their ability to demonstrate empathy and compassion for the feelings of others
- 17.7% more could recognise and label their own feelings and those of others
- 19.4 % showed improvements in their ability to listen carefully to others

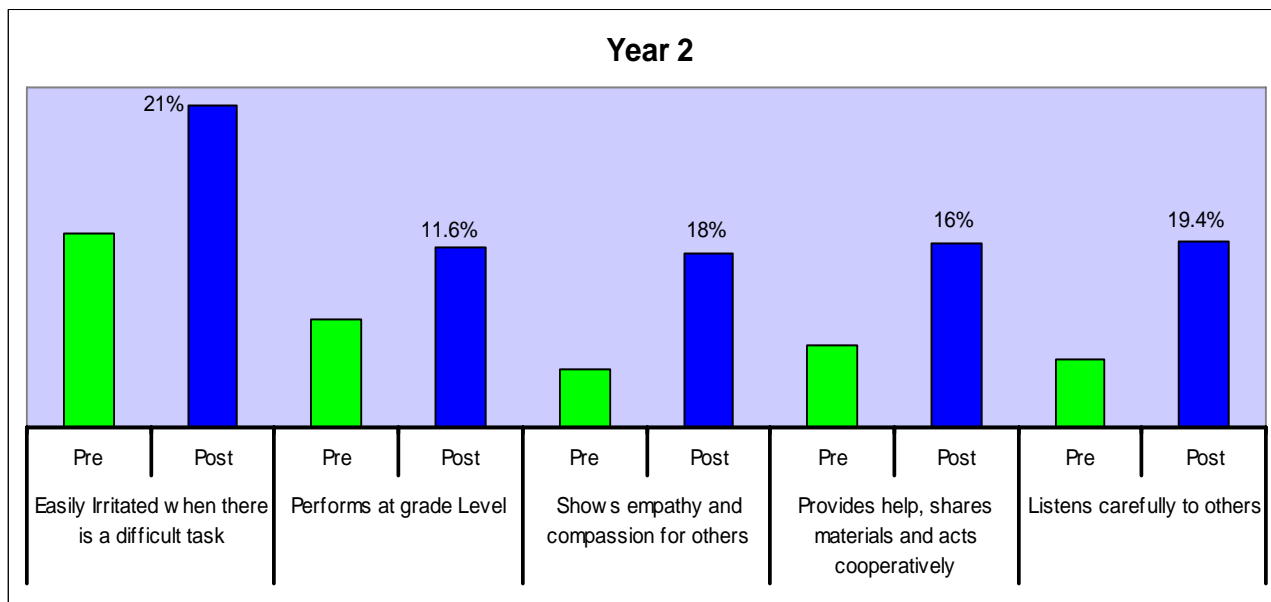


Table 3: Year 2 responses

During the year the classroom environment was seen to positively change with the majority teachers reporting children became more willing to provide help, share materials and act cooperatively with others.

Teachers identified the following positive effects in children's **achievement** and **attainment**:

- Improved listening skills and communication skills
- Increased oral vocabulary and more extended vocabulary and emotional content in writing
- Increased use of descriptive words in creative writing
- More independent thinking and ability to work independently
- Greater levels of co-operation resulting in more children completing their work successfully
- More children were able to focus on the task through increased levels of concentration
- Increased sense of self-worth which impacted on attainment and achievement

- Greater determination to succeed
- Complimenting has acted as a motivator to improve effort and presentation of work
- Children with special needs were more comfortable in the classroom environment
- Improved problem solving skills
- Children are better able to respond to open-ended questions
- Class discussion were more constructive and informed

Teachers reported that the calmer atmosphere in PATHS classrooms is conducive to children achieving better.

Teachers were asked whether they had noticed any positive or negative changes in the **trends in pupil behaviour** over the last year. They reported:

- Positive benefit to homework
- Positive impact on attendance
- Positive trend in the reduction of bullying, fighting, hitting/ hurting others, because the children recognised the behavioural signs in others and in themselves
- Increased peer pressure not to fight
- Quicker to apologise and admit responsibility
- Improvement in respectful behaviour towards adults
- Changes in the children's attitude to negative behaviour- that it is not nice behaviour, that there is a better alternative.

Pupil Data –Year Three to Six

During the 2009/10 academic year children in years 3 -6 participated in PATHS during the summer term. The evaluation data indicates the trend of improvement is heading in the same direction as the R, YR1&2 children's data. The statistics are not reported at this stage as this cohort of children had not participated in PATHS for long enough. However, antidotal evidence from staff teaching these age groups reported seeing improvements in classroom relationships, enhanced emotional literacy and pupils ability to problem solve independently during the first term's implementation.

Staff also reported the children's reaction to the PATHS programme as very positive. Children enjoyed the lessons and were generally familiar with the programme: as a result, they were more confident and articulate in their engagement with the programme.

Head Teachers - In House Coordinators⁷

The Headteachers and House Coordinators (IHC's) participated in a series of development meetings throughout the first years implementation. As part of the TaMHS project evaluation a focus group session was undertaken by an independent researcher. The feedback received during the development meetings and as part of the focus group research shows:

⁷ **In- House Coordinator**- A staff member who had allocated non contact time each week to observe peers, liaise with the Coach and develop PATHS as a whole school approach.

Headteachers felt PATHS had enabled pupils to:

- regulate their emotions
- teach them strategies for calming down
- develop skills to support them cope with disappointment and frustration in a more positive way

They reported seeing a marked improvement in the children's ability to share materials and play cooperatively with peers both within the classroom and playground.

They reflected that these improvements had contributed to the development of an enhanced positive whole school ethos with a number of staff experiencing improved relationships with challenging children. They felt that PATHS had also contributed to improvements in learning and a reduction in the time staff spend dealing with disruptive behaviour.

IHC's⁸ are school based representatives that have responsibility for maintaining the fidelity⁹ and development of PATHS as a whole school approach. They were supported by a PATHS Coach who visited the schools once a fortnight during the first year.

The IHC role is unique to Norfolk's PATHS programme and research shows the implementation of the IHC's role was crucial to embedding PATHS effectively within our schools.

Research identified the success of the IHC's was due to their ability to:

- support fellow staff through role modeling lessons
- supporting staff not familiar with the programme
- developing best practice and team-teaching lessons with support from the Coach.
- ensure consistency of delivery with PATHS core concepts being reiterated by all staff each year.
- support staff to integrate PATHS within the curriculum and across the school into other activities (i.e.) assemblies, in the playground, school notice boards, compliments etc
- share progress and planning developments with the Headteachers and the Coach
- share good practice with other IHC's through presentations / demonstrations and networking opportunities
- actively promote PATHS, through notice boards/ displays/ parents evenings/ school home letters, etc.

Delivering PATHS with fidelity

The focus group research identified IHC's valued the role and felt they had the cooperation of the staff to deliver the PATHS programme. IHC's reported the role was different to other

⁸ **In- House Coordinator**- A staff member who had allocated non contact time each week to observe peers, liaise with the Coach and develop PATHS as a whole school approach.

⁹ **Fidelity**- ensuring the key concepts are taught with depth, quality, and consistency, plus evidence of integrating PATHS into other areas of the curriculum.

coordination roles as a strong emphasis was placed on the need to maintain the fidelity¹⁰ of PATHS.

IHCs felt able to comment on the successful implementation of PATHS and spoke of their own growing skills base, and feeling empowered through the process. In particular they commented on the skills they had gained:

- experience in classroom observation
- staff management
- communication
- problem solving with reluctant staff and
- delivering presentations to Headteachers, Parents and Governors.

The IHC's views of PATHS reflect the empirical findings identified in the pupil's survey. Many commented on the whole school focus of PATHS as being a positive factor in the success of the programme. IHC's reported that PATHS was easy to implement with the materials and support being provided. Some schools were so enthused with PATHS they had invested in developing further resources and materials, designing sweat shirts and badges for the pupil of the day¹¹ personalised with children's photographs and comments. IHC's also reported through monthly feed back sessions that PATHS was also having an impact outside of the classroom, both within the playground and at home. Staff had observed the children beginning to **display self-regulation** by generalising the learning to other situations such as the playground and while they are at home.

While there are many reasons programmes fail to be implemented well, we know the following elements must be in place. The school community must:

- be enthusiastic about the initiative
- have the confidence and skills to carry it off and
- have the support and encouragement of school leadership, policies, and structures to sustain their social, emotional learning work.

Adopting and sustaining a successful school wide Social Emotional Learning initiative, (SEL) as with other major school change efforts, involves a series of steps and ongoing commitment. It generally takes between three to five years for any major organisational change to become fully implemented school wide, SEL programmes are no exception.

In asking the IHC's what impact PATHS has had. They reflected that:

By teaching the children that feelings have words associated with them, children were better able to reflect on what had just happened and were able to share that understanding of situations with adults. One IHC felt that the impact was especially significant with certain groups of children:

¹¹ **Pupil of the Day-** *This is a nominated child who receives compliments from their peers, teachers and family; they are usually the classroom helper for the day as well.*

“Before they couldn’t express – the language wasn’t there....a Year 2 child described a picture on one of the Bear Cards as looking delighted, that the ability to talk about feelings other than happy, sad, angry is quite significant”

Another IHC felt PATHS had been particularly beneficial to children who were quiet, or who had not been expressive. They felt the improvements to these particular children’s communication in class had been supported by the use of the ‘feelings cards’:

“We have noticed the effect of communication especially with quiet or SEN children when before we wouldn’t necessarily have known there was a problem”

“I noticed a difference between schools that are doing PATHS and those that aren’t in terms of the emotional language children are able to use”

Children were encouraged to give one another compliments either regarding their work, or about themselves:

“The Compliments part is really good . . . it is actually bonding the class better . . . it changes the atmosphere”

Another IHC mentioned the importance of the PATHS programme in allowing children to express when things were not good:

“One boy who had angry feelings inside suddenly let them out . . . he went home and said to his mum - ‘my teacher said it is OK to have these feelings as long as I know how to deal with the behaviour that goes with it”

What didn’t work so well?

As with any pilot programme there are always challenges and things that could have been done better. The Headteachers and IHC’s felt there were several areas where things could have been improved. They spoke of the initial training not necessarily meeting everyone’s expectations and feedback showed staff would have liked more time to reflect on the programme in relation to the curriculum requirements, rather than spend time role playing lessons.

As Norfolk was the first area to use an anglicised version PATHS, resources arrived quite late. Draft versions of resources were used whilst waiting for final sign off and approval from America.

It took sometime to get the communication structures right to ensure information was distributed across whole staff teams. In the initial stages this led to some level of frustration experienced by both the schools and the project team.

Children’s Satisfaction Survey

To ensure the children’s voices could be heard we devised a survey based on the core concepts covered in PATHS. We piloted the survey with one school in October 2010, one year post implementation to ensure the survey was easy to complete and the children felt comfortable answering the questions. Once we had piloted the survey, children from the other schools completed the survey during Nov 2010- Jan 2011: The results are as follows

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The children said:

- 62% enjoyed the PATHS lessons
- 57.5% felt PATHS helped them say how they feel
- 61% felt PATHS had helped them to understand others feelings
- 57% felt PATHS had helped them solve problems
- 78% now better at taking turns
- 79% now better at sharing
- 46% had used the calming down technique –turtle or the controls signals posters

The children's voices clearly show that they enjoyed the lessons and were generally familiar with the programme's core concepts. It is also clear children were beginning to internalise strategies for managing their emotions and to resolve personal and interpersonal problems. *(For a full breakdown of the children's responses per year group please refer to appendix 3.)*

Lesson Observations

PATHS lesson observations were undertaken by the IHC's and the Coach throughout the first year. Immediate feedback was given to class teachers and a written account of the observation with any areas of development was provided to all the teachers observed. The observations showed great enthusiasm in delivery, with the majority of teachers delivering the lessons with fidelity and referring to the lesson plans as required. Where concerns were highlighted these were supported by the IHC or Coach through team teaching and role modeling lessons.

The lesson plan structure supported teachers who were less confident or familiar with content of the lesson and provided a consistent structure for teachers to follow. The observations showed children listened well and were able to, and willingly engaged with the discussions and activities. The visual and practical resources supplied as part of the programme were used well and children readily engaged with them to the point whereby the puppets which are used by R&YR1 children became a dominant feature in the classrooms.

Conclusions

The findings for Norfolk's first year of implementation clearly indicate that PATHS a prescriptive preventative whole school approach has had a significant impact on the children and staff who have participated in the programme, particularly in the area of social & emotional competence.

Overall data shows teachers perceived significant positive changes in all three areas, **aggression and disruptive behaviour, concentration attention, social and emotional competence** during the academic year 2009/10.

The biggest reported impact revealed was the practical influence the materials had for children in developing their social, emotional awareness, concentration, attention skills: especially with the younger age groups.

Findings show that using an evidence based programme's like PATHS works and had real

benefits for both teaching staff and pupils when you deliver them with fidelity. As opposed to other programmes whereby staff can pick and choose modules.

Benefits to developing PATHS show:

- **enhanced relationships** between children and staff
- **Improvements** seen in teaching and learning.
- **engaging classroom** environment

The biggest positive difference shown in the children's survey was in terms of **friendships, sharing and interaction**. These features are explicitly addressed in PATHS, and the research demonstrates these areas of difference are attributable to the PATHS programme.

The Year 2 data shows consistent differences across all three areas, with consistently higher differences in the social / emotional competence area. '**Listening**' and '**Empathy**' were highlighted by the teachers as showing improvement together with the tendency to not become irritated when faced with a difficult task. Data indicates that year 3 to 6 children were showing comparative levels of improvement to the younger age groups.

The findings show all eight schools have seen a **positive difference** in both **children and staff** within the first year.

School staff delivering PATHS have commented:

- *"I now spend less time managing behaviour and more time teaching"* Yr 1 Teacher
- *"The children have become really attached to the puppets they thoroughly enjoy PATHS time"*.
- *"The children love being the PATHS pupil of the day, where they help and support"*.
- *"Less time is spent sorting out arguments as they sort them out themselves"* Teacher Yr2
- *"Look at the children now, compared to the start of term when they were almost feral, they are engaged, they listen and participate"* Y2 Teacher

Positive outcomes have been observed including a reduction in behavioural problems in the playground, children better manage their frustration and resolve conflicts themselves.

In using a robust framework to support children's social and emotional development, combined with a spiralling curriculum which supports children develop their language of feelings and emotions the data clearly demonstrates that PATHS has worked in Norfolk.

The evidence clearly shows children were more able to understand their own feelings and show empathy to others. They had begun to internalise strategies for managing their own feelings and show empathy for others. They had begun to internalise strategies for managing their emotions and resolving personal and interpersonal problems. Children clearly demonstrated increased self-esteem and were more confident in class when speaking out and giving their opinion.

It is however, important to note that the full benefits of the programme will not be evident until the children experience the programme through the primary years, which will take several years to truly assess the impact for children in Norfolk.

As the TaMHS pathfinder moves towards the end of its initial funding, 7 of the 8 schools plan to continue to develop PATHS as a whole school approach. The school that is not continuing with the whole programme has seen a significant change in staff, including changes to both the head and deputy head teacher within a very short space of time.

In the words of one Headteacher *'PATHS has been the most significant thing that has made a positive difference this year'*.

For further information about PATHS or the pilot project in Norfolk please contact Julia Haig Child & Adolescent Mental Health (CAMHS) Service Development Manager with responsibility for the 2007-2011 (TaMHS) pathfinder@ julia.haig@norfolk.gov.uk .

Appendix 1 Research

There is a huge body of international research evidencing the effectiveness of PATHS. A series of randomised controlled trials with intervention versus control groups using one year of PATHS implementation with pre, post, and follow-up data have been conducted over the past two decades. (Greenberg & Kusche', 1993, 1998; 2004; Greenberg, Kusche', Cook, & Quamma, 1995; Kam, Greenberg, & Kusche', 2004; Riggs, Greenberg, Kusche' and Pentz, 2006, Eisner et al., 2007).

Increasing Protective Factors (Greenberg & Kusche', 1993, 1998, 2004)

The clinical trials show the use of the PATHS curriculum significantly increases children's ability to:

- Understand social problems
- Develop effective alternative solutions
- Decrease the percentage of aggressive/violent solutions
- Increased the children's understanding and recognition of emotions

Research demonstrates that both children and teachers report significant improvements in children's pro-social behaviour in the following domains:

- Self-control
- Emotional understanding
- Ability to tolerate frustration
- Use of effective conflict-resolution strategies

Cognitive testing indicates that PATHS leads to improvements in the following skills

- Ability to plan ahead to solve complex tasks with mainstream and special needs pupils (WISC-R Block Design and Analogies of the Test of Cognitive Abilities)
- Cognitive flexibility and low impulsivity with non-verbal tasks (Coding from the WISC-R)
- Improved reading achievement for young deaf children

Reducing Maladaptive Outcomes

Teachers report the following reductions in behavioural difficulties at *one-year post intervention*:

- Decreased internalising symptoms (sadness anxiety and withdrawal)
- Decreased externalising symptoms (aggressive and disruptive behaviour)
(Special needs pupils)

Pupils report the following reductions in behavioural difficulties at *one-year post intervention*:

- Decreased symptoms of sadness and depression (Child Depression Inventory)
- Decreased report of conduct problems

Curtis and Norgate's 2007 research into the effects of PATHS at Key Stage 1 show that at post one year of implementation:

- children in the schools delivering PATHS demonstrate significant improvements compared with children in control schools on all five behavioural and emotional constructs.
- teachers perceived the introduction of the PATHS curriculum as having a positive impact on the children's emotional and behavioural development, which was further supported by the research interviews.
- teachers perceived PATHS as having a positive impact on the emotional vocabulary and understanding of the children.
- teachers felt that the children were showing greater cooperation, empathy and self-control.

Appendix 2

PATHS Data Norfolk Summer 2010

Year R & 1=430 pupils

Year R & 1: Aggressive / Disruptive Behaviour					
	Category	Pre	Post	Diff.	Percentage Improvement
1. Yell at Others	Almost Never	217	209	- 8	
2. Fight	Almost Never	222	227	+5	1.1
3. Is stubborn	Almost Never	156	162	+6	1.3
4. Loses his or her temper in a disagreement	Almost Never	181	193	+12	2.7
5. Breaks Classroom Rules	Almost Never	0	5	+5	1.1
6. Hurts Others	Almost Never	208	242	+34	8
7. Breaks Rules	Almost Never	157	202	+45	10.4
8. Is Disliked by Classmates	Almost Never	210	250	+40	9.3
9. Stays Excited or Upset	Almost Never	161	198	+37	8.6
10. Handles Disagreements in a Negative way	Almost Never	138	188	+50	11.6
11. Gets angry when provoked by other children	Almost Never	165	198	+33	7.6
12. Whines or Complains	Almost Never	133	144	+11	2.5
Year R & 1: Concentration / Attention Skills					
	Category	Pre	Post	Diff.	Percentage Improvement
13. Stays on task	Almost Always	50	116	+66	15.3
14. Pays Attention	Almost Always	59	130	+71	16.5
15. Maintains Focus	Almost Always	48	120	+72	16.7
16. Engages in an activity or play for sustained time	Almost Always	56	139	+83	19.3
17. Listens to stories without being distracted	Almost Always	66	157	+91	21
18. Completes one task before moving to another	Almost Always	50	131	+81	18.8
19. Sits still when asked to	Almost Always	79	176	+97	22.5

Year R & 1 Social / Emotional Competence					
	Category	Pre	Post	Diff.	Percentage Improvement
20. Understands other people's feelings	Almost Always	21	95	+74	17.2
21. Is liked by Classmates	Almost Always	71	158	+87	20.2
22. Shares materials and plays co-operatively taking turns	Almost Always	41	125	+84	19.5
23. Provides Help	Almost Always	28	111	+83	19.3
24. Listens to others point of view	Almost Always	25	91	+66	15.3
25. Initiates Interactions and joins in, in a positive manner	Almost Always	29	113	+84	19.5
26. Recognises and labels feelings and those of others	Almost Always	21	102	+81	18.8
27. Expresses needs and feelings appropriately	Almost Always	27	105	+78	18.1
28. Resolves problems with other children on his or her own	Almost Always	18	67	+49	11.3
29. Copes well with disappointment or frustration	Almost Always	19	98	+79	18.3
30. Accepts when things don't go his or her way	Almost Always	24	102	+78	18.1
31. Stops and calms down when excited or upset	Almost Always	35	111	+72	16.7

Year Two = 180 pupils

Year 2: Aggressive / Disruptive Behaviour					
	Category	Pre	Post	Diff.	Percentage Improvement
1. Takes others Property	Almost Never	111	132	+22	12.2
2. Yell at Others	Almost Never	100	113	+13	7.2
3. Fight	Almost Never	98	108	+10	5.5
4. Is Stubborn	Almost Never	66	80	+14	7.7
5. Loses his or her temper in a disagreement	Almost Never	72	95	+23	12.7
6. Lies	Almost Never	79	105	+26	14.4
7. Break Classroom Rules	Almost Never	63	90	+27	15
8. Tease Classmates	Almost Never	76	97	+21	11.6
9. Harms Others	Almost Never	92	117	+25	13.8
10. Easily Irritated when there is a difficult task	Almost Never	57	95	+38	21

11 Is Disliked by Classmates	Almost Never	86	110	+24	13.3
12. Rejects limits set by Adults	Almost Never	86	113	+27	15
13. Stays Excited or Upset	Almost Never	75	105	+30	16.6
14. Handles Disagreements in a Negative Way	Almost Never	73	91	+18	10
15. Gets provoked by other Children	Almost Never	70	91	+21	11.6

Year 2: Concentration / Attention Skills

	Category	Pre	Post	Diff.	Percentage Improvement
16. Works Hard	Almost Always	34	62	+28	15.5
17. Works through Distractions	Almost Always	19	42	+23	12.7
18. Concentrates	Almost Always	31	47	+16	8.8
19. Stays on task	Almost Always	34	49	+15	8.3
20. Accepts Adult Limits	Almost Always	45	64	+19	10.5
21. Pays Attention	Almost Always	38	54	+16	8.8
22. Performs at grade Level	Almost Always	32	53	+21	11.6

Year 2 Social / Emotional Competence

	Category	Pre	Post	Diff.	Percentage Improvement
23. Feels at Ease to Talk to You	Almost Always	24	56	+28	15.5
24. Shows Empathy and Compassion for Others	Almost Always	17	51	+34	18
25. Is liked by Classmates	Almost Always	33	61	+28	15.5
26. Provides help, Shares Materials and acts Cooperatively	Almost Always	24	54	+30	16
27. Takes Turns, Plays fair, and follows Game rules	Almost Always	26	56	+30	16
28. Listens Carefully to Others	Almost Always	20	55	+35	19.4
29. Initiates Interactions and Joins in with a Positive Manner	Almost Always	20	48	+28	15.5
30 Accepts when things don't go this or her way	Almost Always	14	46	+32	17.7

JH 26/10/10

Appendix 3: Norfolk PATHS- Children's Survey 2011

Total number of children surveyed 1,136	Reception 161 children	Year 1 193 children	Year 2 194 children	Year 3 177 children	Year 4 151 children	Year 5 165 children	Year 6 95 children	Overall Total
Enjoyed PATHS lessons	89%	75%	66%	56%	42%	45%	56%	62%
Liked the puppets/stories	92%	85%	63%	76%	45%	47%	48%	67%
Felt helped say how I feel	83%	78%	56%	56%	33%	35%	57%	57.5%
Did turtle when needed to calm down	*57%	63%	-----	-----	-----	-----	-----	47%
Used the traffic light technique to calm down	-----	-----	52%	49%	38%	35%	54%	45%
Helped understand others feelings	75%	73%	68%	64%	48%	46%	64%	61%
Helped keep classroom rules	93%	85%	76%	66%	53%	52%	60%	70%
Helped to be confident	-----	-----	-----	60%	56%	61%	77%	61%
Helped them to share	91%	83%	66%	-----	-----	-----	-----	79%
Helped them to solve problems	**66%	74%	57%	58%	47%	48%	57%	57%
Helped them to make good decisions	-----	-----	-----	60%	48%	50%	68%	55%
Helped them to take turns	89%	84%	63%	-----	-----	-----	-----	78%
Helped to have good manners	96%	89%	72%	73%	56%	55%	57%	72%

Key:

*Two classes had not covered the turtle technique at the time of the survey

**One class not covered it at this time.

---- not part of the programme at this stage.