



Evaluation of the Suas Numeracy Programme

Final Report

September 2020



Executive Summary

Following a tender process, Business Improvement Solutions (BIS) in partnership with Jane Turnbull Education and Development were appointed in October 2019 as the external evaluators for the Suas Numeracy Programme. The evaluation has drawn on a range of pre-existing and newly designed quantitative and qualitative evaluation methods involving a combination of desk research, surveys, field visits, interviews and focus groups undertaken in October, November & December 2019. Consultation has involved all key stakeholders, i.e. the Suas Team, Schools, participating children, and the Suas Mentors. This Executive Summary provides an overview of the final evaluation report and its main findings, conclusions and recommendations.

Strategic Relevance

The Suas Numeracy Programme was designed to meet need evidenced in policy and strategy. Educational disadvantage refers to the situation where some individuals get less benefit from the education system than their peers, with the majority of children underachieving academically coming from disadvantaged backgrounds. The National Literacy and Numeracy Strategy (2011-2020) recognises that children from designated disadvantaged schools (DEIS) are at greater risk of failing to acquire basic literacy and numeracy skills. Given this alignment with prevailing national policy on educational disadvantage, we find the programme to be strategically relevant.

Aims of the Suas Numeracy Programme

The Suas Numeracy Programme seeks to improve schoolchildren's maths skills as well as their self-esteem and confidence to learn. The interventions provide children who are struggling with numeracy an opportunity for repeated practice, further explanation, and reinforcement, delivered in a one-to-one coaching session. The interventions are focussed on children most at risk of being failed by the education system - struggling learners in Urban DEIS¹ schools (mostly the more disadvantaged Band 1 schools).

Delivery of the Suas Numeracy Programme

Suas have proven experience and expertise acquired over many years in the design and implementation of educational development programmes for children from the most disadvantaged communities in Ireland. Their innate understanding of the educational needs of disadvantaged children is evident in the innovative design and implementation of the numeracy programme with a mix of academic and fun-based learning resources.

¹ Launched in 2005 by the Department of Education and Skills, **DEIS** (Delivering Equality of Opportunity in Schools) is the most recent national programme aimed at addressing the educational needs of children and young people from disadvantaged communities.

Schools engaged with Suas either because they received a 'promotional' email from Suas, or because they had learnt about the opportunity from another Primary School and contacted Suas to enquire about the opportunity for their School to be part of the Programme. Volunteers are appointed as Suas Mentors, from the community, secondary schools, higher education institutions and corporate organisations. The volunteers undergo training in the Programme and its resources. The Suas Numeracy Programme utilises the Power of 2 coaching resource in conjunction with specially designed worksheets and games that require numeracy skills. It is targeted at children aged 8 to 9 years old (2nd and 3rd class in the DEIS Primary Schools).

Children participating in the Suas Numeracy programme were identified by the Class Teacher, in liaison with Special Needs Teachers, Learning Support Teachers, and Principals. Schools reported that one of the major benefits of this Programme is that it provided support for those children who were unable to access additional support (as they are not in receipt of an 'Assessment of Need'²) and those who are not high achievers.

Schools receive the Suas School Pack and participate in a briefing session with a member of the Suas Team, the identified Suas Supervisor, and the Suas Mentors prior to the start of the Suas Numeracy Programme delivery. During the 2018/19 school year Suas delivered their programme across locations in Dublin, Cork, Limerick, Clare and Waterford with 564 children and 298 mentors involved i.e. 98% of the child participation target and 103% of the Mentor participation target for that year.

School Feedback about the Suas Numeracy Programme

All School representatives interviewed (n = 21) said that the Suas Numeracy Programme met or exceeded their expectations; which focused on increasing children's level of enjoyment, confidence, and interaction with maths, with academic improvement being a bonus; and the benefits for children's self-esteem and motivation to engage in maths through the unique opportunity of one-to-one support. Schools reported that the Suas Numeracy Programme fits well within the DEIS Schools ethos; is very positive for the children in terms of self-esteem and holistic personal development; and facilitates an openness to learning and understanding of numeracy skills.

² If a child has a disability or the parent of School thinks they may have a disability an Assessment of Need may be applied for, through the Health Service Executive. The assessment will identify your child's health needs. The assessment will also identify what services are required to meet your child's needs.
<https://www.hse.ie/eng/services/list/4/disability/disability-assessment/>

Highlights from consultation with Schools about the delivery of the Suas Numeracy Programme included the smooth running of the Programme in School; excellent resources (especially the Power of 2 and the maths games, which children engaged well with); that the Mentors adapted activities to deliver the session in the best interest of each child (very learner-centred); and the added value gained through the relationships between the children and the Suas Mentors.

Some common themes for areas for improvement were identified by the Schools, namely: improved communication with Mentors in terms of when they cannot attend on a given day and feedback to teachers about what a child has studied with the Suas Mentor each session and where pupils are progressing or struggling.

Some schools felt that the level pitched at the start was too high for 2nd Class children and that they would be happier if the Suas Mentors had a better understanding of what level children are at and what topics they are covering in class. Challenges for the Schools included finding a spare room for the Suas sessions; allocating a member of staff to sit in on the Suas sessions as the designated 'Supervisor'; and children missing out on other lessons (most Schools addressed the latter point by scheduling maths lessons to take place at the same time the Suas Mentors were in the School).

There is also a need for some greater clarity in the operational process, most of which could be addressed through reviewing the Suas School Pack or specific inclusion in the School Briefing Session. School representatives were asked if they wished to engage in the Suas Numeracy Programme in the future and if they would recommend the Suas Numeracy Programme to other Schools; every School responded "yes" to both questions.

Impact of the Suas Numeracy Programme for Schools

All School representatives interviewed felt that the School and the children's Teachers benefitted from the Suas Numeracy Programme. Benefits include taking pressure off the Teacher, children gain from learning and understanding the basics (which means that they are better able to keep up with the rest of the class), increased participation of children in maths lessons, and that the Programme supports children in the 'lower-middle range', who can sometimes 'slip through the net'.

Impact of the Suas Numeracy Programme for Children

School staff reported that the children's numeracy skills had improved and furthermore felt that children participating in the Suas Numeracy programme gained in confidence in learning and self-esteem. This has been evidenced by greater participation in class, a 'can do' attitude, greater focus in class, and that children were prepared to learn and 'give it a go'. Teachers reported that greater confidence results in children participating more in class and increased learning

Interview respondents said that the Suas intervention not only increased children's confidence and self-esteem about learning maths, but that this newly found confidence extended to other subjects. Some of those interviewed noted added value from the Programme, which had not been anticipated, but was of significant benefit for the children involved. This focussed particularly on the social interaction with the Suas Mentors.

Participant Progression – WRAT-5 Data Analysis

Under the Suas Programme the WRAT-5 Test (an approach to assessing and monitoring maths skills) is administered with participating children before they start the Suas Programme in School and again on completion.

Analysis of data analysis of WRAT-5 Test results pre- and post- Programme, from a sample of 80 children, from ten Primary Schools, show 67.5% of the children's maths age in months had increased following the Suas intervention: 17 children's maths age increasing by 9 or more months. 15 (18.75%) of children's maths age remained the same, and 11 (13.75) of children's maths age in months was lower in the post-programme test.

56% of the children who completed pre and post WRAT – 5 testing improved their standard score. Feedback from Teachers strongly suggests that the Schools place value on the credibility of the WRAT-5 Test.

Children's Feedback

The aim of the pre- and post- Programme questionnaires (revised by the Evaluation Team) that were completed by participating children was that data collected would capture progress in softer skills as well as numeracy and provide an insight into children's thoughts about the programme. This is in line with the overall aim of the Suas Numeracy Programme, "to provide support for children from disadvantaged settings to realise their rights and achieve their full potential through the transformative power of education".

The Evaluators had access to 80 Questionnaires, where children had completed both the Pre-Programme and the Post-Programme Questionnaire³. Overall the children's feedback is very positive, only one child gave fewer positive answers overall in the post-programme questionnaire than in the pre-programme questionnaire.

There was a 17% increase in the number of children (14 children) saying that they "usually understand maths questions"; with the number responding 'untrue' reducing by 7 children (11 to 4); and 'sort of true' reducing by 10 children. The number of children who said that they don't like maths, or they sort of liked maths reduced from 27% to 14.5%; with only 3.5% of children categorically saying they do not like maths post-Programme.

The post-programme questionnaire gave three additional statements: all asking for feedback about the Suas programme. Data analysis shows that:

- 98.5% (80) of the children replied 'true' or 'very true' to the statement "My Suas mentor was helpful." with 1 child responding 'untrue'.
- 97.5% (79) of the children replied 'true' or 'very true' to the statement "I liked the Maths classes with my Suas mentor", with no child responding 'untrue' and 2 saying 'sort of true'.
- 95% (77) of the children replied 'true' or 'very true' to the statement "I like spending time with my Suas mentor", with no child responding 'untrue' and 3 saying 'sort of true'.

Parental Involvement

Parental involvement in the Suas Numeracy Programme was limited to, providing consent for their child to participate, and attending the Suas Graduation Day. Parental involvement in DEIS schools is often challenging and requires resources. However, the evaluation team took the opportunity to discuss the concept of parent involvement with the school representatives, such as a numeracy session for parents, an induction to Suas, and opportunities (top tips) for embedding numeracy skills at home. All stakeholders felt that such approaches could be beneficial and may extend and increase the impact of the Suas Numeracy programme for the children and the wider family unit.

Consultation with the Volunteer Mentors

Volunteers are at the heart of the Suas Programme and key to enabling improvements in children's numeracy skills and confidence levels. In 2018/19 Suas recruited, vetted and trained 298 volunteers to deliver one-to-one support to children struggling with maths. Volunteers primarily came from secondary schools, the community (e.g. retired people and parents), third level education, and corporate sectors.

³ Note: the WRAT-5 Test and the pre-and post-Programme Questionnaires are two different approaches used to evaluate the Programme. The former identifies purely academic gains; whilst the latter provides 'softer', attitudinal data from children.

A survey was circulated to all mentors in autumn 2019 and was completed by 44; and in addition, three focus groups were held seeking qualitative feedback from the Suas Mentors. The questions focused on support from Suas, Programme delivery, and the impact of the Suas Numeracy programme.

Consultation with the volunteer mentors has evidenced high levels of satisfaction with the training in relation to increasing Mentor awareness of the needs of struggling learners (98%) and building their confidence and capacity to support such learners through the Suas numeracy programme (97%). 90% of the questionnaire respondents felt that communication with Suas was effective.

In relation to the Numeracy Programme delivery, 92% of Mentors reported satisfaction fully or to some extent with the information provided beforehand on the children that they would be working with. 97% of the responding Mentors were satisfied with the level of resources made available to them; with 95% indicating that they found the bespoke resources easy to work with. Some suggestions for 'tweaking' the resources were made.

97% of responding Mentors felt that there was some improvement in the numeracy skills of those that they tutored with almost two thirds rating this improvement as high. Some mentors saw a correlation between improvement in confidence and being more engaged with the programme with improved mastery of the tools and workbook.

Similarly, 97% of Mentors felt that there was some improvement in the levels of confidence and self-esteem of those that they tutored, with almost 80% rating this improvement as high or very high.

95% of respondents rated their experience of the programme as being positive or very positive; with 83% indicating that they will volunteer again on the Programme. 50% of the Mentors reported that the most significant outcome for them was an increased awareness of the challenges for teachers and children in the current education system.

Conclusion

The main objectives of the Suas programme were to improve the capacity of the child to learn maths and simultaneously to enhance their confidence and self-esteem. The quantitative and qualitative data generated and analysed for this evaluation points to the successful achievement of some objectives.

The Evaluation Team conclude that the benefits in relation to long term achievement in maths in addition to the personal, social, and emotional development of the participants would be scalable if further grants were to be made in the future. In fact, were the resources available to deliver additional interventions to those children who have already received one programme of interventions, their development would accelerate.

The findings from this evaluation are an important milestone in generating sufficient data about the programme impact and enabling Suas to promote it as a robust, evidence-based numeracy intervention for use in DEIS schools nationwide.

Recommendations

Tailoring Suas Numeracy Programme and Resources

There is an assumption that the Power of 2 Workbook 'fits all' children – which it does not: being too advanced for some children, especially those in 2nd Class. Feedback from some Schools suggested that the Numeracy Programmes would have greater impact if they were tailored more towards the needs of each pupil.

Class Teachers should attend at least 15 minutes of the Briefing Session (which may entail extending the timing of the Briefing Session) whereby the Class Teacher can give an overview of the level of each pupil, and maths areas in which they are struggling. The Evaluation Team endorse the pursuit by Suas with the publisher to develop a smaller version of the Power of 2, to only include the parts that are attainable for the targeted participants (2nd Class and 3rd Class).

Feedback to Class Teachers about the Suas Sessions

Suas needs to remind the Mentors that the Mentor Report should not only be completed after each session but also be left for the class teacher to access. Suas may also consider implementing a simple form for the child to complete at the end of each session, which could be given to the class teacher and also taken home to parents (example given in the Recommendations section).

Increasing the Mentor Pool

In seeking to increase the mentor pool and have increased flexibility to provide substitute cover, it is recommended that Suas consider the profile of the mentor base and seek to proactively target those sectors where they have been successful with previous recruitment. (Community, Secondary Schools, Third Level Colleges and Corporates) Requesting existing mentors to present their experience of the programme to their peers could be an important pull factor in attracting additional mentors.

Review the Suas School Pack

To include 'Top Tips' when implementing the Suas Numeracy programme in Schools – suggestions for 'Tips' to include are given in Section 3.

Parent Engagement

A 'how to support numeracy skills at home' Workshop delivered in Schools, and that parents should receive a written communication about their participant child's progress in maths is recommended.

WRAT-5 Test

Feedback from Teachers strongly suggests that the Schools place value on the credibility of the WRAT-5 Test. However, consideration should be given to the scheduling of the tests to ensure that it provides the child with the best opportunity to prepare and perform to their maximum.

Children's Evaluation of the Suas Numeracy Programme

It is recommended that Suas continue to use the revised evaluation questionnaire for children pre- and post- the Suas Numeracy programme. The requirement for Schools to forward the questionnaires onto Suas in a timely manner should be included in the Suas School Pack.

Training and Briefing Sessions with Suas Mentors

It is recommended that the Numeracy Programme should not commence in schools until a briefing session is completed.

Sharing Information

It is recommended that the sharing of information to assist the Suas Mentor to deliver a positive outcome for the child be further explored through the parental consent process.

Mentor Meetings - The facilitation by Suas of 'Mentor Meetings' is recommended in each school mid-way through the programme.

1.0 Introduction

Suas Educational Development is an Irish educational charity whose mission is to transform the lives of children in disadvantaged settings through education. Founded in Ireland in 2002, Suas works with disadvantaged children in Ireland, India, Zambia and Kenya. In Ireland, Suas-trained volunteers provide one-to-one reading and maths support to children in disadvantaged schools. As of the end of June 2019, they have helped over 6,000 children from the most disadvantaged communities in Ireland to improve their literacy skills. Internationally, Suas have supported over 12,000 children in India, Kenya and Zambia since 2003 and have trained over 1,100 volunteers to work as teaching assistants in some of the world's most marginalised, under-resourced communities.

1.1 Educational Disadvantage – An International Perspective

The great majority of low achievers come from disadvantaged backgrounds. Low achievers are commonly to be found in poor urban areas. Low achievement in school is complex and multifaceted, however some clear main factors emerged from the study. Reasons for low achievement are associated with indicators of disadvantage:

- The neighbourhood unemployment rate
- Percentage of single-parent households
- The proportion of parents with low educational qualifications

There is a long-established acknowledgment that children who experience poverty often face barriers to their education. This means that many children from disadvantaged backgrounds enter school with lower than average levels of development; which in turn impacts on their educational progress and attainment. Since 2012, the prevalence of child poverty is increasing for the first time in a decade of decline; which is a concerning counter trend⁴.

Poverty has a significant impact on the educational experience and attainment of many children. The academic literature is very clear: differences in the social background of pupils are the primary factors causing inequality in educational outcomes. Studies looking at the influence that schools and other factors, such as family background, have on the educational attainment of children and young people have found that the majority of variation in attainment is attributable to the characteristics of school intakes rather than schools themselves⁵. One statistical analysis found that only 20 per cent of variance in educational progress could be attributed to schools.

⁴ Margaret Whitehead, University of Liverpool, NICE Annual Conference, 2015

⁵ Connelly et al. (August 2014), *Primary and secondary education and poverty review*. Centre for Longitudinal Studies, p. 23

Economic background has a serious impact on students' experience of education. For example, the Children's Commission on Poverty found that a third of children who said their family is "not well off at all" had fallen behind in class because their family could not afford the necessary books or materials. Children who experience poverty during their preschool and early school years have lower rates of school completion than children who experience poverty only in later years⁶. Statistical data, taken from analysis of the Joseph Rowntree funded Longitudinal Study of Parents and Children⁷, show:

- The gap in attainment between children from the poorest and richest backgrounds, already large at age five, grew particularly fast during the primary school years.
- By age eleven, only around three-quarters of children from the poorest fifth of families reached the expected academic level, compared with 97% of children from the richest fifth.
- Poorer children who performed well in school academic assessment tests at age seven were more likely than better-off children to fall behind by age eleven.
- Poorer children who performed badly at age seven were less likely to improve their ranking compared with children from better-off backgrounds – an important factor behind the widening gap.
- Parental aspirations and attitudes to education varied strongly by socio-economic position, with 81% of the richest mothers saying they hoped their nine-year-old would go to university, compared with only 37% of the poorest mothers.

Increasing levels of poverty are putting schools under greater pressure. Schools serving deprived communities are dealing with extra challenges including child mental and physical health issues, the impact of unemployment, and higher crime rates. Findings from the Economic and Social Research Council⁸ Review showed:

- Poor housing and frequent moves, parental stress and depression, and poor health are all factors which have an impact on children's educational attainment.
- Socio-economic differences in educational attainment are bigger than both race and gender and should be given the highest priority.
- Socio-economic differentials in education emerge early in life, but continue to grow throughout the school years, suggesting that early intervention is important but not sufficient.
- Schools serving poor communities often face additional challenges, including dealing with children's emotional and behavioural problems.

⁶ Institute of Technology Education, <https://groups.google.com/forum/#!topic/betdimte/htaeYKQd680>

⁷ Poorer Children's Educational Attainment: How Important are Attitudes and Behaviours? Alissa Goodman and Paul Gregg, Joseph Rowntree Foundation, 2010

⁸ Primary and Secondary Education and Poverty Review, Alice Sullivan, and John Jerrim, Centre for Longitudinal Studies, Economic and Social Research Council, 2014

Having unemployed parents may add a dimension of stress to the household that may hinder children's development⁹. Parents' preoccupation with financial difficulties may reduce the level or quality of time spent with children, increase the stress that children face in their daily lives, and hinder children's educational performance. Parental unemployment impacts on children's aspirations and their perceptions about what opportunities are open to them.

Data analysis following a Literature Review showed a very strong positive association between parent's labour market success and children's test scores for cognitive ability. Father's employment in particular is found to be strongly related to test scores. Children of fathers who work score about 3 to 5 percentile points higher on cognitive ability tests than children of fathers who do not work at all.

Machin argues that while education can be an escalator out of social disadvantage (leading to better job prospects for young people and reducing the prevalence of income poverty in adult age); educational failure can reinforce social disadvantage. He suggests that rather than "equalising" opportunities, education can be a powerful driver of social selection¹⁰. The association between poor numeracy and other negative outcomes is also striking. Those who struggle with numbers are twice as likely to be excluded from school and twice as likely to be unemployed as those who are competent at numeracy. Two thirds of young people in custody have numeracy skills at or below the level expected of an 11-year-old¹¹.

There is substantial evidence from qualitative studies that effective strategies to improve outcomes for children living in poverty include:

- Rigorous monitoring and use of data
- Raising pupil aspirations using engagement/aspiration programmes
- Engaging parents (particularly hard-to-reach parents) and raising parental aspirations
- Developing social and emotional competencies
- Supporting school transitions
- Providing strong and visionary leadership.

⁹ How Does Parental Unemployment Affect Children's Educational Performance? Philip B. Levine, Wellesley College and NBER, 2009

¹⁰ Machin S, Social Disadvantage and Education Experiences, OECD Social, Employment and Migration Working Papers with number 32.

¹¹ https://www.nationalnumeracy.org.uk/sites/default/files/resources_report_-_count_me_in.pdf

1.2 Educational Disadvantage in Ireland

Educational disadvantage refers to the situation where some individuals get less benefit from the education system than their peers. The Education Act 1998¹² defines educational disadvantage as “the impediments to education arising from social or economic disadvantage which prevent students from deriving appropriate benefit from education in schools”. Educational disadvantage is demonstrated in many ways, most often in poor levels of participation and achievement in the formal education system.

The Department of Education and Skills had a range of national programmes in place to address educational disadvantage throughout the public-school system. In 2005, the Department published an action plan to address education exclusion¹³ which brought a number of programmes together under the framework of Delivering Equality of Opportunity in Schools (DEIS) to provide a more integrated approach to the issue of educational inclusion which provides for:

- A standardised system for identifying and regularly reviewing levels of disadvantage &
- A new integrated School Support Programme (SSP) to bring together and build upon the previous schemes and programmes

The National Literacy and Numeracy Strategy (2011-2020) recognises that children from designated disadvantaged schools (DEIS) are at greater risk of failing to acquire basic literacy and numeracy skills. ESRI research in 2015¹⁴ points to high levels of disadvantage and greater complexity of need in Urban Band 1 DEIS schools. For example, over 50% of students in second class are in the lowest achievement band for numeracy. Other Studies¹⁵ have shown that children who fall behind at primary level are more likely to leave school early, be unemployed or in low-skilled jobs, have poorer health, and are more likely to end up in poverty and in prison.

1.3 Suas Numeracy Programme

The Suas Numeracy Programme was designed to meet need evidenced in policy and strategy. It is one of a number of Suas programmes designed to support children in disadvantaged communities to escape this cycle of deprivation through the transformative medium of education. The interventions are focussed on children most at risk of being failed by the education system - struggling learners in Urban DEIS schools (mostly the more disadvantaged Band 1 schools). It was first piloted during the 2016/17 school year. The Suas Numeracy Programme seeks to improve schoolchildren's maths skills as well as their self-esteem and confidence to learn.

¹² <https://www.asti.ie/operation-of-schools/legislation/education-act/>

¹³ DEIS - Delivering Equality of Opportunity in Schools: an action plan for educational inclusion (pdf)

¹⁴ Learning from the Evaluation of DEIS- Emer Smyth, Selina McCoy, Gillian Kingston, ESRI Research Series Number 39, April 2015

¹⁵ <https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/poorer-children-education-full.pdf>

The interventions provide children who are struggling with numeracy an opportunity for repeated practice, further explanation, and reinforcement, delivered in a one-to-one coaching session. A common question raised about intervention programmes is whether small group intervention is as effective as individualised intervention (small group coaching requires fewer resources per child). The preliminary evidence of the Every Child Counts Research suggests that for children who have significant weaknesses individualised intervention is better, both because it can be more precisely targeted and because such children have often developed educationally maladaptive strategies to cope in group situations, ie strategies of hiding their difficulties, which may make them harder to diagnose and overcome¹⁶.

The Suas Numeracy Programme utilises the Power of 2 coaching resource in conjunction with specially designed worksheets and play materials. It is targeted at children aged 8 to 9 years old (2nd and 3rd class in Primary Schools). The name of the Power of 2 resource reflects the success that comes from two people working on maths together. Teachers call it a “three-tick resource”, and the resource contains enough material for a support teacher to use for an entire term. When used this way, the teacher will repeat every page until the child has answered each question correctly three times in a row.

Suas Mentors use the book a little differently, as with a Programme delivering fourteen sessions over seven weeks the Mentors do not have the time to go through each question three times (or more); instead they use the Power of 2 to identify where a child is struggling. This allows Mentors to focus their time on problematic areas and to make the absolute best use of the seven weeks that they have with each pupil. If a child gets every question on a page correct the first time, then the Mentor moves on. If a child is giving incorrect answers to some questions, then the Mentor knows that they are struggling to some extent with this topic and need additional help. Mentors can then turn to the related worksheets and other resources to help the children understand the topic better.

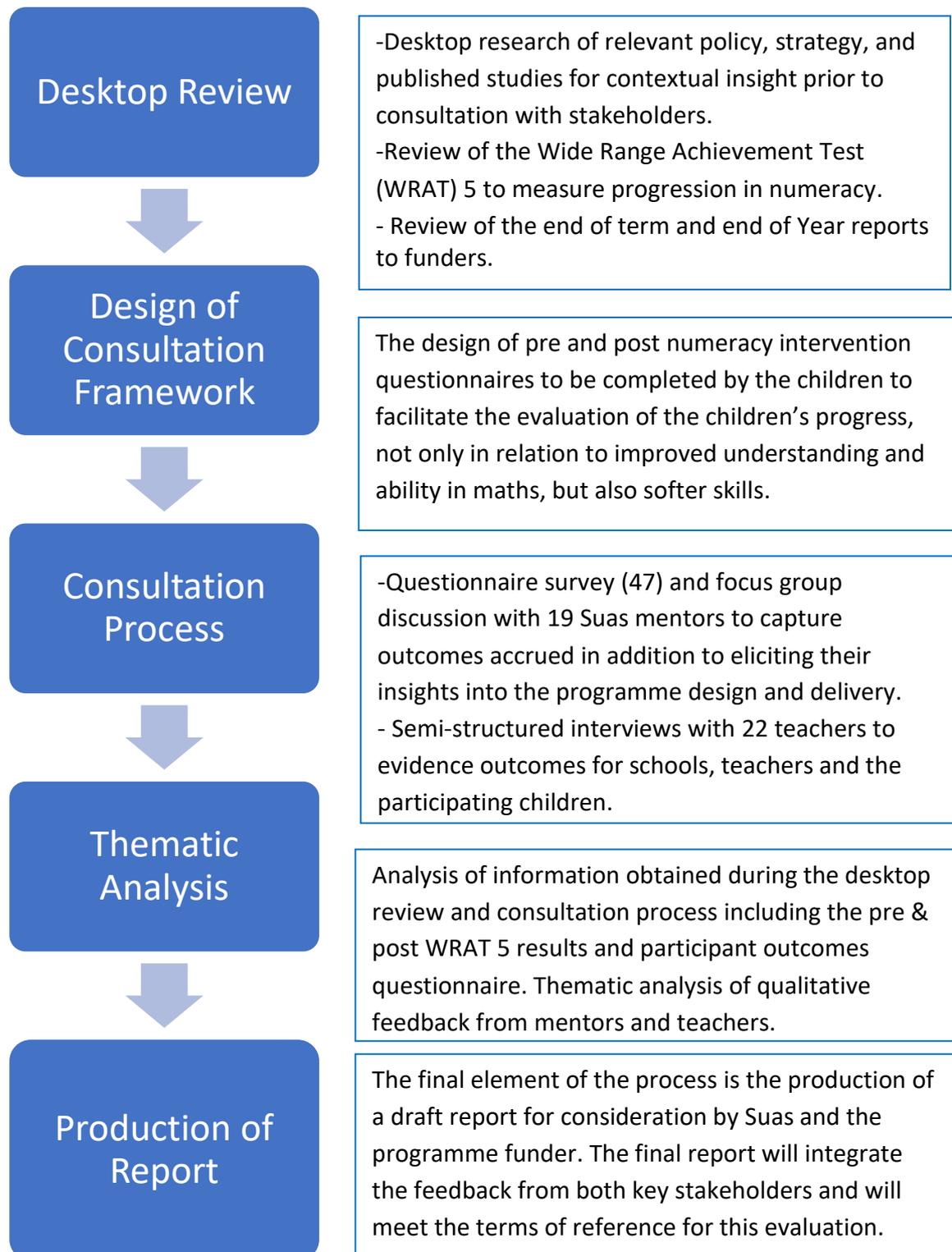
After a successful pilot and with the continued support of the funder, basis.point, two further phases of the Numeracy Programme have been completed, with phase three currently being delivered in the 2019-20 academic year. In October 2019, Suas commissioned an independent evaluation of the programme so that;

- Suas has a Programme evaluation and can incorporate critique, recommendations and lessons learnt into the strategic development and next phase of the Programme.
- basis.point and other donors and organisations have an independent evaluation of the Programme to inform strategic funding and policy decisions; with a particular focus on assessing programme design, delivery, and methods of assessing and evidencing its outcomes and impact.

¹⁶ https://www.catchup.org/resources/735/what_works_for_children_with_mathematical_difficulties.pdf

1.4 Evaluation Methodology

Business Improvement Solutions (BIS) in partnership with Education and Development were appointed as the external evaluators and the following section sets out the methodology adopted to meet the terms of reference for the evaluation. The evaluation has drawn on a range of pre-existing and newly designed quantitative and qualitative evaluation methods involving a combination of desk research, surveys, field visits, interviews, and focus groups.



2.0 Consultation with Teachers

The overall aim of the Suas Numeracy Programme is to support children from disadvantaged settings to realise their rights and achieve their full potential through the transformative power of education. As noted previously in the Report, the Suas Numeracy Programme is delivered in DEIS Schools which are located in areas of disadvantage, where many children and their families have a range of complex needs.

The Suas Numeracy Programme could not be delivered without ‘buy-in’ and support from the Primary Schools. The Evaluators prepared a series of questions which formed the basis of structured telephone conversations with Schools. A total of 21 Schools were successfully contacted, where a member of staff (and in one case two different members of staff) were interviewed. Those interviewed included Principals, Class teachers, Teachers with responsibility for Numeracy or Special Needs, and Home School Liaison Officers.

This section presents feedback from the Schools and identifies opportunities for future improvement and development. That said, it should be noted that at the end of every interview the School representative was asked if they wished to engage in the Suas Numeracy Programme in the future and if they would recommend the Suas Numeracy Programme to other Schools; every School responded “yes” to both questions.

2.1 School Engagement with Suas

Schools participating in the interviews indicated that the Suas Numeracy Programmes had been delivered in School for either one or two years, (the former being delivered in Schools for the first time in autumn 2019).

Schools become involved with Suas either because they received a ‘promotional’ email from Suas, or because they had learnt about the opportunity from another Primary School and contacted Suas to enquire about the opportunity for their School to be part of the Programme. Expectations about the potential impact of engaging with Suas included hopes that participation in the Numeracy Programme would:

- Increase children’s level of enjoyment and interaction with maths – academic improvement would be a bonus
- Bring an element of enjoyment of Maths, which tends to lead to improvement
- Building confidence in Maths – a lack of confidence is partly a result of rote learning as opposed to understanding the relevance of learning something
- Provide access to an innovative programme that would facilitate a unique opportunity for one-to-one support that would benefit children in different ways
- Give children a fresh energy through bringing in external people, rather than constantly being in the class with the class teacher.

“Children from disadvantaged areas struggle, and we hoped that the extra support would benefit them; we also thought the mentoring aspect would be beneficial for them too”.

Everyone interviewed said that their expectations were met, with some saying their expectations were exceeded.

“DEIS Schools are located in disadvantaged areas, our main priorities include improvement of Numeracy and Literacy; and the Suas Programmes offer support in these subjects for children in the lower-middle bracket”.

School feedback shows that the Suas Numeracy Programme

- Fits in with the DEIS Schools ethos
- Is very positive for the children in terms of self-esteem and holistic personal development
- Is unique to other interventions through the provision of one-to-one support
- Supports children from disadvantaged backgrounds to access additional support
- Addresses lack of confidence (‘I can’t do maths’), which in itself facilitates an openness to learning and understanding of numeracy skills.

2.2 Selection Criteria for Participants

School feedback showed that Schools followed the Suas criteria for the selection of pupils to participate in the Programme; in so far as children in the 10th to 25th percentile, and those who had least confidence in maths were identified as potentially benefitting from the Suas Numeracy Programme. Children were identified by the Class Teacher, in liaison with Special Needs Teachers, Learning Support Teachers, and Principals. Schools reported that one of the major benefits of this Programme is that it provided support for those children who were unable to access additional support (as they were not statemented) and who also were not high achievers.

“The Suas Programme meets an unfilled gap. Children with additional needs get extra support, and children at the high academic end also receive additional input in a variety of ways. Very often, too often, those children who ‘plod along’ and just need an extra stimulus get left behind. The Suas Programme accommodates these children, and they gain so much from the one-to-one support”.

The Suas Numeracy Programme supports:

- “Those children who needed a boost in promoting an interest in numeracy and needed additional support”
- “Children in the lower to mid-range, where often confidence was the barrier to learning”
- “Children felt special to be chosen” “The growth mindset of ‘can’t do it yet’ ...”
- “Children not in the lowest bracket, but the next group up”

A class teacher has commented on the children's confidence and attitude towards Maths since participation in the programme. She highlighted a big improvement in the children's Maths standardised test results; and that the boys who were involved with Suas are "now much more likely to put their hands up when a question is posed. This is hugely positive". She also remarked that the pupils have improved in their mental arithmetic. "The experience has been very positive for the boys involved".

2.3 Programme Delivery

In terms of the operational delivery of the Programme the Schools identified many positive elements, which can be categorised into three themes: operational, the resources, and the relationship between pupils and Suas Mentors.

2.3.1 Operational

- Designating a room that the Suas mentors work out of – a couple of Schools noted that this makes a big difference as "we didn't have that last year"
- Being out of the classroom meant that the sessions were more informal
- Reliability and punctuality of the Mentors "they were here every day on time, which is important not only for the smooth running of the School, but also for the children involved"
- During the time that the Suas Numeracy sessions were delivered the other children in the classroom were doing Maths as well so those attending the Suas programme were not missing out on other subjects
- We identified a 'substitution' pupil, so that if one of the children was absent on the Suas mentor day a pupil still benefitted
- "The Programme ran very smoothly, with good communication between the Suas Mentors and School staff".

2.3.2 The Numeracy Resources

- The overall Programme: the resources which are structured, and number based
- The Maths games element in the resource packs, "which the children love"
- The Power of 2 resources. "It was brilliant that the Suas Mentors had a Power of 2 resource for each child"
- Packs were picked up each session and continued by each of the Mentors
- Mentors adapting and changing activities to deliver the session in the best interest of each child; "it was very learner centred, which was perfect for the children selected to participate"

2.3.3 Relationship between Pupils and Suas Mentors

- Flexibility - for example, doing maths games rather than the Workbook, which engages the children
- Positive feedback from the Suas Mentors and the relationships that the children and the Suas Mentors developed
- That each child was assigned a Suas Volunteer
- The children were eager and excited to go to their Suas sessions
- Children 'learning manners' and improving their one to one oral communication through interaction with the Suas mentors

"The Suas Volunteers that we had from the area [community] were fantastic. They were extremely reliable and good with the children – and developed a lovely relationship with each child alongside the numeracy work they did".

"There was a lovely rapport between the Mentors and the children – it was more friendly than a teacher pupil relationship".

During the interviews, the Teachers from the Schools were asked 'what hasn't worked so well in the delivery of the Suas Programme'. Feedback is presented through the three themes below:

2.3.4 Communication with Mentors

- Mentors not turning up when scheduled – "this particularly affects children with ASD, who if they are expecting something to happen and this doesn't take place can cause a 'melt-down' for the rest of the School day"
- No communication from the Mentors if they could not attend a session
- Lack of communication between the Class Teacher and the Suas Mentor prior to the Programme
- Absence of feedback about what a child has studied with the Suas Mentor each session – i.e. "no understanding for the Class Teacher about which topics a pupil has understood or where they continue to struggle"

2.3.5 Numeracy Level and Topics

- Opportunities to link class maths topics in with Suas Mentor topics
- Children missing out on other subjects when attending the Suas Programme
- Children in Second class (especially in the Autumn Term) are not on the level assumed by the Mentors – and therefore the Power of 2 resource is at too high a level for them ("for example, they have not come across long division or multiplication")

- “One or two lessons in the Maths didn’t coincide with the way we teach Maths, for example we don’t do vertical addition, but introduce written sums horizontally – so it can be difficult and cause issues if they children learn one way in the classroom and a different way with the Suas Mentors”
- Using appropriate approaches – for example, “the Suas mentors introduced pupils to ‘100 squares’ and the Second Class are not used to this strategy, which caused confusion”
- The Suas Mentors need to tie in more with the class Maths approach used, so that the same strategies are employed
- There seemed some confusion with some of the mentors about how to approach some Maths issues – for example, long division

2.3.6 Operational issues

- Lacking space in the School to have a separate room for the Suas Programme one-to-one delivery
- “The biggest challenge is to find two hours a week to free up a staff member to be present during the Suas sessions”
- The Suas Mentors need to be able to manage children’s behaviours, even when there is School supervision in the room, so perhaps this should be included in the training.

“To be honest, we were promised four adults and only three turned up. The volunteers need to do more research into the maths curriculum. They have lovely resources, but these are not tailored to Class Two. Maybe speaking to the Class Teacher or Learning Support before they start to get an understanding about what is going on in the class and prepare their input for the pupils around this would be beneficial; so that the extra support Suas provides is more specifically tailored around for what is happening at the time in class”.

“The main downside was the attendance of the Suas volunteers – two were very irregular and so children were buddied up with a pupil. ASD children can have a ‘meltdown’ if something that is planned does not take place; which has an impact on the rest of their School day”.

“We would have welcomed more communication about the topics covered in each Suas class and further research by the Mentors into the curriculum being covered. Resources could then be tailored appropriately (everything is available on-line these days). There is little point in doing the Programme if the topics are too hard or inappropriate for the identified pupils”.

2.4 Parental Involvement

All the Schools inform parents that their child has been selected to participate in the Suas Numeracy programme, which requires parental consent. For some Schools parental consent was gained solely from a letter sent home; whilst others spoke to parents on the telephone about the Programme and how it could benefit their child (usually done by the Home School Liaison Coordinator). Other than this, parental engagement is limited to attending the Suas Graduation ceremony, where Teachers report that parents are “delighted”, “encouraged”, and “happy” that their child has achieved in maths.

Parental involvement especially in DEIS schools is challenging and requires levels of resources well in excess of what the Suas programme can provide. However, the evaluation team took the opportunity to discuss with the school representatives, the concept of parent involvement which resulted in the following suggestions.

- Parents could be engaged in an induction to Suas with the children
- Parents could receive feedback on a weekly basis about the maths topics
- Parents could be invited to a session on how to support their children with maths and receive a handout on how to support their children’s numeracy skills at home. (See Recommendations)

“A parent’s numeracy session would be fantastic. We saw at the Suas ‘graduation’ that the parents didn’t really know what had been going on and what exactly the Programme entailed. I was taken aback that the full-on Graduation took place – it was great. Parents realised afterwards that this is a fairly big thing for their child. The Programme has been delivered in a School that is located in a disadvantaged area, where many parents are not able to sit down and support their child with their homework. Parents need to see maths as an everyday part of daily life. Some of our parents have low levels of educational attainment, and maths is a subject that parents seem to have a lot of fear of – ‘I’m no good at Maths, I can’t help you’; which then gives children a negative perception about maths”.

The impact of such approaches, evidenced from programmes delivered in West Belfast¹⁷ and elsewhere, is that:

- Parents realise the importance of maths for their children
- Parents have an understanding of ‘how maths is done these days’
- Basic ways to incorporate the reality of numeracy skills into daily life
- Parents feeling better able to support their children in learning maths at School.

¹⁷ Belfast West Numeracy & Literacy Programme 2016-19

2.5 Impact for Schools

All Schools reported that strategically the Suas Numeracy Programme linked in with the ethos of their Schools, providing opportunities for children (from disadvantaged backgrounds) to achieve their potential.

“Community links are a major part of our School goals in terms of support for disadvantaged families. The School promotes reading and numeracy as core to children’s learning. The Suas programme not only brings support for children’s numeracy skills but has also supported respect for and relationships with older people. Through the one-to-one mentoring approach our children have learnt respect for the older generation and their community. We were delighted that the community Suas Mentors wanted to come back to our School for a second year”.

Children have received additional support, which is reassuring for them, and builds their confidence. Teachers report that children participate and engage more in class (for example, putting their hands up to answer questions) following engagement in the Suas Programme.

“Children received extra one-to-one support, which otherwise they would not have got. These children are not entitled to additional ‘special needs’ support; and can so easily get behind in the full class environment. For a lot of children maths holds a fear, and they think ‘I can’t do this’; which impacts on learning. The Suas mentors overcome this fear (which may be real or imagined); which in turn facilitates the children to engage in and understand numeracy concepts”.

All School representatives interviewed felt that the School and the children’s Teachers benefitted from the Suas Numeracy Programme. Examples of the benefits included that the Numeracy Programme:

- Takes some of the pressure off the Teacher: some children need a lot of support and there are limited staff resources.
- Some children needed support in understanding some of the basics and were getting left behind because of this.
- Supports children in the ‘lower-middle range’, who can sometimes ‘slip through the net’.

“The Teachers were happy to see that the children were getting something different – it was about number and confidence. The class teachers saw the Suas resources beforehand and were impressed with the workbooks and games that were used by the Suas Mentors”.

2.6 Impact on Children's Numeracy Skills

Those interviewed gave examples about how the Suas intervention had improved children's maths skills:

- "I sat in the room whilst the children were working with the Suas Volunteers and I could see week on week progress".
- "The volunteers' feedback was very helpful – each week they identified areas of improvement and raised any issues that arose. Their communication was excellent, I think we were lucky to have four mature people as the Mentors in the School".
- Confidence – children are prepared to try and not [be] afraid to fail. They are more comfortable and realise that making a mistake is not the end of the world.
- Children participate more in maths classes and will therefore learn more.
- Active learning
- Mentors can focus on an area the child is having a difficulty [with] and clear it then and there, which increases their maths understanding, especially in the basics that prepare them for future learning.
- Levels of numeracy understanding have improved.
- Children respond better to the help in class.
- Children interact more in class during maths lessons.
- Children are more focussed in maths classes.

"The Suas Programme has given the children a boost in their basic numeracy; it has reinforced learning and helped them catch up with the basics, so they are not getting left behind so much. Through mastering the basics children now have the chance to move forward along with the rest of the class".

Those interviewed (as appropriate) were asked whether based on their experience, the improvement in maths skills continues in the classroom once the Suas Mentor has completed the Programme with an individual child. Some respondents felt unable to answer this question, as they no longer worked with the children as they had moved onto other classes. One Teacher noted that "we had nine children participating last year and four are continuing to improve well – we caught them for the Suas Programme at just the right time. Others have additional difficulties, and perhaps one programme is not enough".

"The children did a lot of mental maths, which was really good. As Class teachers we could have had more feedback about what was covered in an individual session. For example, maybe we could have received examples of the work that the children covered that week or a report on what they had done. Then teachers would know more about what children had done and build on that in class and see what worked well or what they are struggling with".

2.7 Impact on Confidence in learning Maths

Every School representative felt that children participating in the Suas Numeracy programme gained in confidence in learning and self-esteem. Comments included:

- Children seem to get so much confidence around numbers.
- The Suas mentors encouraged the children to find the answers.
- Children who have participated will now 'give it a go', put their hand up in class to answer a question.
- Children will try in maths classes, they are no longer disinterested, and will engage – that is self-esteem.
- Children said they were getting really good at Maths "thanks for making me good at Maths".
- Children who don't have confidence get worried. "Children cannot learn if they are unhappy or anxious. The one-to-one support gives them self-confidence and a realisation that they 'can do it'".
- The Programme was pitched at the right level for the children, so they experienced success in what they were doing and felt they were achieving.
- Teachers felt that children came back from the Suas sessions on 'good form' and very happy. This positivity seemed to last throughout the rest of the day, even if just displayed in their attitude in class.
- Greater enjoyment of the subject, belief in themselves and therefore more focussed.

"Before the programme most of the children who were participating were very sheepish about maths; they would say they didn't like it. The one-to-one sessions brought them on very quickly – these children have it in them, they just didn't believe in themselves. The Programme has changed the mindset of these children".

"The children said they were getting really good at Maths, for example one of the boys said, "thanks for making me good at Maths'. The Programme was pitched at their level, so they experienced success in what they were doing and felt they were achieving. This gave them a lot of confidence, which was then seen in the class as they actively participated and engaged in maths lessons".

Interview respondents in the majority of Schools (when they felt they could make a judgement) said that the Suas intervention not only increased children's confidence and self-esteem about learning maths, but that this newly found confidence extended to other subjects.

“Some children may have had confidence in other subjects but not in maths before this Programme, others lacked confidence across all subjects. They have learnt to see themselves as capable and able in Maths, which has built their confidence not only in maths, but in other subjects as well. They will put up their hands and answer questions. It seems that they have moved from a ‘can’t do’ mentality to one that they can and will engage in maths lessons”.

They also felt that where there is the opportunity to bring back the same Volunteers to deliver further Suas Programmes with the School, that this removes a lot of the introductory work (showing them around the School, meeting teachers, understanding of the School ethos etc.); “we would be very keen to have the same people back again, this embeds the Programme in the School and cuts out introductions”.

2.8 Unintended Added Value

Some of those interviewed noted added value from the Programme, which had not been anticipated, but was of significant benefit for the children involved. This focussed particularly on the social interaction with the Suas Mentors. The children entered into a relationship with an adult for whom they gained respect. “I saw them learn manners (for example saying thank you at the end of a session), making conversation, and having social engagement with their Mentor”. Several people interviewed felt that there was added value for children from newcomer families, where parents were less able to provide support at home.

2.9 General Observations

There are a couple of issues where clarity is needed for the Schools – for example is it acceptable that the same child attends the Programme twice? In Northern Ireland, where similar programmes have been developed and delivered, there is a recognition that some children need more than one intervention; and that accessing a second opportunity will make a significant difference.

Some Schools felt that a seven-week Programme, with fourteen sessions, is not quite long enough – and that pupils would benefit more from a ten- or twelve-week programme. Research presented in the ‘What Works for Children with Mathematical Difficulties Report¹⁸ (2009) suggests that interventions should last for approximately 12 weeks. However, pragmatically, this would require additional input from the Suas Volunteers, which might be unrealistic.

¹⁸ https://www.catchup.org/resources/735/what_works_for_children_with_mathematical_difficulties.pdf

One School noted that when identifying children, they did not choose those who had a poor School attendance, as they feared this would not make the best use of the resource. However, in other programmes where additional external supports have been provided it has been noted (as an unexpected outcome) that children with a poor attendance record regularly attended School on the days of the external Programme. This in turn was a win: win as the child attended the full School day.

One School identified a 'substitution pupil'; who would attend the Suas session when one of the core pupils was absent from School, thus fully utilising the Suas Mentor's time in School. This approach could usefully be incorporated when pupils in need, but with poor attendance records, are identified to engage on the Programme (see point above).

2.10 Summary - Key Learning Points

This section provides a summary of the key learning points from the consultation with teachers which are reflected further in the recommendations section.

- Some incentive or contract for the volunteers to feel more obliged to regularly attend sessions in School; which could include establishing direct connection between the Mentor and the school, so that schools know when Mentors cannot come in on a certain day. Currently Suas asks school staff to join volunteer WhatsApp groups so that they are in the loop as quickly as possible of a given day, or Mentors contact Suas if they cannot attend the school on the day of the programme.
- Mentors' greater awareness of the maths level and approaches to numeracy skills of the children (especially in Second Class)
- Increased contact from the Mentors with and feedback to Class Teachers, so that they know what children have been learning, where they are doing well, and where there are still problems/blocks.
- Training for the Suas Mentors in managing children's behaviour – although it is noted in the Suas School Pack (page 4) that the Supervisor, present in the room with the Suas Mentors and pupils "is responsible for ... dealing with any behavioural issues".
- There seemed to be some confusion with some of the Mentors about how to approach some Maths issues – e.g. long division and multiplication.
- One interviewee summarised a point made by a number of Schools that "the biggest challenge is to find two hours a week to free up a staff member to sit in the room during the Suas sessions". Some Schools found that the ideal person was the Home School Liaison Officer, which other Schools had not considered.
- The availability of a separate room for the Suas mentors and children – "which allows for less disruption, and for children to know where they would be each week"
- Having a 'substitution' child who can attend when a pupil is absent.

- Feedback from the Schools has identified some elements of the Suas Numeracy programme that have not worked as well as hoped, some of which could be addressed in the communication between Suas and the Mentors and Suas with the Schools, which includes:
 1. Teachers identified the Power of 2 as a very valuable resource, particularly for children in Third Class where the exercises and topics are at the right level. However, there is an assumption that the Power of 2 Workbook ‘fits all’ children – which it does not, especially for children in the first term of Second Class.
 2. That the Suas Mentor meets with the Class Teacher prior to the start of the Programme to gain an understanding of the level of academic ability and topics to be covered during the time the Suas programme takes place.
 3. Suas Mentors and the Class Teacher should schedule ten minutes to meet together to understand what topics are being covered over the weeks that the Suas Mentor is working with children from the class.
 4. Communication about what has been covered during the Suas sessions each week with the child, and where they are doing well or where extra help is needed.
 5. A summary of what the Suas Mentors did over the seven weeks and summary of the targets achieved, which the Class Teacher could add to their own notes. Mentors are provided with a ‘Mentor Record’ to complete after each session. Feedback from Schools suggests that some Teachers are unaware of this.
 6. A simple feedback report (or the Mentor report) could be provided or copied for parents, which might engage them in their children’s maths topics in School.

2.11 Impact Stories

Based on consultations with the teachers, the Evaluation Team drafted a number of impact stories to provide further insight into the impact of the programme on participants.

“For the first week or two the children were getting used to the idea of the Suas sessions. A couple linked in with the concept and the relationship very quickly. Others took a little longer, but the relationships grew very quickly after the period of settling in. Shyness and uncertainty eased off. The consistency was great with the mentors being there every week”.

“One of the mentors had a beautiful relationship with one of the children – there was a lot of energy and fun at their table. The girl gained in confidence and belief in herself, and really came out of her shell. When children are relaxed and feel confident, they learn so much better”.

“I can think of a child who would be just about to give up in terms of Maths – if the one-to-one hadn’t happened, I think she would have got bogged down in class. Instead we were able to overcome the roadblock, caught her just at the right time, and she has really improved and flourished in Numeracy”.

“We had one pupil who really disliked school, she is a lovely child and happy with her friends but just did not like school. Having the Maths Buddy assigned to her made her feel special and she loved being chosen. Her whole attitude has changed. She has no more qualms about being in School or feeling she didn’t fit, and in fact she says to others in the class now ‘come on, for sure, you can do this, you know how to’.”

“One of our boys felt he wasn’t good at Maths, he found it very difficult. Following the Suas Programme he now says he is good at maths “because the Suas lady showed me how to do it”. The idea of Maths was very daunting to him, even before he knew what the topic would be, he would say he couldn’t do it. His own perception is that he can now do it – mind you, he does have a very black and white view of things. His self-esteem and confidence have really grown because of the successes achieved during the Suas programme”.

“With one of the girls I taught I could really see how much her confidence improved. She benefitted and enjoyed working one-to-one and showing what she could do. Previously she had a big lack of confidence; she is a member of an ethnic community so there is very little home learning support. She really enjoyed the relationship with the Suas Mentor, the one-to-one learning, and developing her skills”.

“Tutors asked us at the start to give them an idea of what each child was interested in. One of the boys was very happy drawing pictures and wanted to take them to his tutor to show her, which he did. They worked well together and almost started each session with a look at the drawing the pupil brought to show the Suas Mentor. This helped to quickly build a trusting relationship, which in turn supported learning”.

“I’ve been teaching this class since September. There was one great boy, but he struggled to be focussed in class. As soon as he gets the time to do something, he is ok, but he will get lost half-way through in the whole class environment. With the one-to-one Suas sessions he flies through the process. He is better able to focus in class due to the growth in his own confidence and the belief that he ‘can do maths’; there is much less of the feeling that he can’t do it. He is ‘getting it’ in the class situation. His hand goes up, he is interacting. He has always had the ability and getting something right gives him the confidence to go for it. For him, just maintaining the focus for a little longer (and literally that is two minutes) has made all the difference”.

3.0 Participant Progression

This section analyses the results of the pre and post WRAT 5 numeracy tests and the questionnaires completed by a sample of participant children pre and post programme.

3.1 WRAT-5 Numeracy Test

The WRAT-5 Test provides an accurate and easy-to-administer approach to assessing and monitoring maths skills and can be used with children from the age of five. It offers a standardised approach to measuring numeracy skills, using tests that can be completed in as little as 15 minutes with younger children. Given the simple administration rules and clear scoring guidelines, the WRAT-5 tests provide accurate and timely data.

Under the Suas Programme the WRAT-5 Test is administered with participating children before they start the Suas Programme in School and again on completion. The data presented in this section is taken from a sample of 80 children who completed the WRAT-5 Tests before and after the Programme, collected by Suas. The Suas Team report “one challenge has been child attendance for the administration of *both* the pre-tests and the post-tests. For instance, with regards to the sample of 80 children included here, an additional 25 children in the same schools were present for *either* the pre-tests *or* the post-tests but not both - they could therefore not be included in the sample”.

3.2 Analysis of the WRAT-5 Test Data

The data presented is taken from a sample of 80 children, from ten Primary Schools who completed the WRAT-5 Tests before and after the Programme, collected by Suas. All the children had fourteen Maths sessions with their Suas Mentor. The participating children were aged between 6 and 9 years old. Suas has been in communication with the National Educational Psychological Service (NEPS) about the use and findings from the WRAT-5 Tests with children in the DEIS Schools. Feedback from NEPS is that the Schools and Suas should not expect to see much change on the standard scores, instead the change in maths age is where change should be seen.

3.2.1 Improvement in Maths Age

The mean age difference for the maths age in months (recorded in the Suas spreadsheet) was four months. Suas has been advised by NEPS that one would not expect to see some of the pupils in DEIS schools change at a ‘normal’ rate i.e. that their maths age would not increase by two months over two months, and that the results should be seen within this context.

The WRAT 5 test scores show that 67.5% of the children's maths age in months had increased following the Suas intervention, with 17 children's maths age increasing by 9 or more months. 15 (18.75%) of children's maths age remained the same, and 11 (13.75%) of children's maths age in months was lower in the post-programme test. It is difficult to 'bench-mark' this improvement with other interventions; particularly as a seven-week programme is shorter than comparable interventions (as noted above, some teachers felt a ten or twelve week programme would be more beneficial).

One UK company selling numeracy intervention programmes for Primary School children promotes the benefits of numeracy interventions as "helping pupils make an average of seven months' progress in 14 weeks, with programmes available for both Key Stage 1 and Key Stage 2, including SATs-specific booster interventions¹⁹".

3.2.2 Change in Standard Score

There are 16 children for whom there are gaps in the data provided. Of the remaining 64 children: 36 children's post-programme WRAT-5 Test scores were higher, 9 children's scores remained the same, and 19 children's scores were lower on the second test. This data evidences that over half (56%) of the children's test scores improved after participating in the fourteen sessions with their Suas Mentor.

3.3 WRAT 5 Test Analysis

Feedback from Teachers strongly suggests that the Schools place value on the credibility of the WRAT-5 Test; and that there is no need to change the administration of the WRAT-5 Test with an alternative approach. However, consideration should be given to the scheduling of the tests to ensure that it provides the child with the best opportunity to prepare and perform to their maximum.

It is difficult to assess and ensure the rigor, validity, and reliability of test scores with Primary aged children; particularly when, as in this case, they have not studied for or been 'drilled' on the specifics prior to taking the test. Some children become anxious before any tests, and children's health and other external factors may affect their test scores.

In addition, the majority of children in Autumn 2019 carried out the post-programme WRAT-5 Test in December; a month when their heads are full of Christmas, nativity plays, and fun; which may not be the most conducive time of year for a child to sit a school test. Furthermore, December is notoriously a month when children catch colds and other bugs, which not only has an impact on academic performance, but can also lead to school absence; the latter may be a contributing factor to the number of children not completing both pre- and post-WRAT-5 tests.

¹⁹ <https://thirdspacelearning.com/blog/primary-school-interventions/>

3.4 Participant Questionnaire

The aim of the Pre- and Post-Suas Numeracy Questionnaires to be completed by children is to facilitate the evaluation of the children's progress, not only in relation to improved understanding and ability in maths, but also softer skills. The Evaluators reviewed the tools that had been used by Suas in previous years, taking on board comments received by Suas from the Schools that whilst the questions asked were good, the questionnaire was too long for children in Class Two and Class Three.

The Evaluators revised the questionnaire, building on the questions that Suas used successfully in the past; but reducing the number of questions asked such that the questionnaire is not daunting for children. The aim was that the questionnaire data would capture progress in softer skills as well as numeracy and provide an insight into children's thoughts about the Suas Numeracy Programme.

The questionnaires include questions about maths attainment, along with measurable improvements in attitude and confidence about maths and school more generally, self-esteem, self-confidence, and motivation. This is in line with the overall aim of the Suas Numeracy Programme, "to support children from disadvantaged settings to realise their rights and achieve their full potential through the transformative power of education".

The revised questionnaire (See Appendix) comprises fifteen questions asked before the Programme, and the same fifteen questions asked post-programme (to ascertain changes in attitude and progress); with an additional four questions added to the post-programme questionnaire. At the start of the questionnaire the children were asked to give their name, age, class, and to say whether or not they had previously had a Suas Mentor.

The first page also noted "This is NOT A TEST. There are no right or wrong answers. *Please be honest when answering the questions.* Your honest answers will help Suas do a better job to help you learn! With the exception of the last question asked in the post-programme questionnaire (an open question asking children to 'write one or two words in the box to tell us what you thought about the Suas maths classes'); all other questions required children to give a rating. The four ratings, accompanied by smiley face emoticons, were 'not true', 'sort of true', 'true' and 'very true'.

3.4.1 Questionnaire Results

As with the WRAT-5 Tests, to date questionnaire data is not available from all children participating in the Suas Numeracy programme in autumn 2019. At the date of writing the Evaluation Report, 80 children, had completed both questionnaires pre- and post-programme, and schools had returned the paperwork to Suas. The tables below and overleaf present the children's responses.

Pre-Suas Programme Statement	Not true	Sort of true	True	Very true	No answer
I like school.	14	11	16	39	1
I like maths.	9	13	11	47	-
I think I am good at maths.	8	16	21	33	1
Maths problems don't make me feel nervous.	11	12	20	37	1
I want to do well in maths class.	3	3	12	63	-
I don't feel scared or worried about asking questions in class.	7	9	15	49	1
I listen to my teachers and care about what they say.	2	1	13	65	-
I usually understand maths questions.	11	24	19	27	-
If I don't understand a maths question I will ask my teacher.	8	1	11	61	
I try to do well at School.	-	-	10	70	1
I feel good about myself at school.	3	7	15	55	1
I want to learn as much as I can in School.	1	6	11	62	1
I think I am doing pretty well in School.	-	6	22	51	2
I have nice friends in my class.	-	1	7	72	1
If I make a mistake, I want to get it right next time	-	5	9	66	1

Table 1: Pre-Suas Questionnaire Results

Post-Suas Programme Statement	Not true	Sort of true	True	Very true	No answer
I like school.	10	11	16	44	-
I like maths.	3	9	21	47	1
I think I am good at maths.	8	15	20	36	2
Maths problems don't make me feel nervous.	10	14	15	41	1
I want to do well in maths class.	1	3	10	67	-
I don't feel scared or worried about asking questions in class.	4	10	13	53	1
I listen to my teachers and care about what they say.	2	2	7	70	-
I usually understand maths questions.	4	14	28	32	3
If I don't understand a maths question I will ask my teacher.	5	3	15	58	-
I try to do well at School.	3	1	6	71	-
I feel good about myself at school.	1	4	14	61	1
I want to learn as much as I can in School.	1	2	12	64	2
I think I am doing pretty well in School.	2	3	21	53	2
I have nice friends in my class.	-	3	4	72	2
If I make a mistake, I want to get it right next time	-	2	13	66	-
Post Questionnaire I like spending time with my Suas mentor.	-	3	8	69	1
I liked the Maths classes with my Suas mentor.	-	2	7	72	-
My Suas mentor was helpful.	1	-	4	76	-

Table 2: Post Suas Questionnaire Results

The questionnaire asked one open question: “Please write 1 or 2 words to tell us what you thought about the Suas maths classes”. Many of the children’s responses were similar; therefore, their feedback is presented as a table.

Additional feedback from children about the Suas programme	No. of responses
It was fun / very fun	23
I liked it	19
Helpful / it helped with maths	13
Good / very good	11
My mentor was nice, kind, caring	9
Great, brilliant, amazing, cool, exciting	8
I love / like maths	7
I loved it	7
Smiley face emoticon drawn in the answer space	7
I loved it	7
It was really bad / so bad	2
Interesting and important	1

Table 3: Post Suas Open Question Results

Additional comments from the children included

“I liked the Suas Maths classes a lot because it was helpful”
“I think it made me better at maths in School”
“It was so fun doing things and playing maths games”
“I loved my Suas mentor and hope I do it again. I love my maths and Suas”
“It was very fun and good, and they really help me with my maths”

3.5 Analysis of Results

- 14 more children (17%) said that it was 'true' or 'very true' that they "usually understand maths questions"; with the number responding 'untrue' reducing by 7 children (11 to 4); and 'sort of true' reducing by 10 children
- 10 more children (10%) said it is 'true; that they "like Maths"; the number of children who said that they don't like maths or they sort of liked maths reduced from 27% (23) to 14.5% (12), with only 3.5% of children categorically saying they do not like maths.
- 6 more children said it is 'very true' that they "feel good about themselves at school"
- 6 more children said it is 'very true' that they "like School"
- 5 more children said it is 'very true' that they "listen to my teachers and care about what they say"
- 4 more children said it is 'very true' that they "don't feel scared or worried about asking questions in class"; and 3 fewer children responded 'not true' to the same question (4 children as opposed to 7)
- 4 more children said that it is 'true' that "If I make a mistake, I want to get it right next time"
- 3 more children said it is 'very true' that they "want to learn as much as I can in School"; with 4 fewer children (3 rather than 7) responding 'not true' or 'sort of true' to the same question
- 3 more children said it is 'very true' that they are "good at maths"
- 3 more children said it is 'very true' that they "want to do well in maths class", and only 1 child (rather than 3) responded 'not true' to this question.

4 children said that it was "not true" or "sort of true" that they "try to do well at School"; whereas before the programme no child had given either of these answers (i.e. all previously responding "true" or "very true" to the statement). There was little change in the feedback from children in response to the following three statements:

- "Maths problems don't make them nervous"
- "If I don't understand a maths question, I will ask my teacher"
- "I think I am doing pretty well in School"
- "I have nice friends in my class"

The post-programme questionnaire gave three additional statements: all asking for feedback about the Suas programme. Data analysis shows that:

- 98.5% (80) of the children replied 'true' or 'very true' to the statement "My Suas mentor was helpful." with 1 child responding 'untrue'.
- 97.5% (79) of the children replied 'true' or 'very true' to the statement "I liked the Maths classes with my Suas mentor", with no child responding 'untrue' and 2 saying 'sort of true'.
- 95% (77) of the children replied 'true' or 'very true' to the statement "I like spending time with my Suas mentor", with no child responding 'untrue' and 3 saying 'sort of true'.

3.6 Summary

Overall the children's feedback is very positive, only one child gave fewer positive answers overall in the post-programme questionnaire than in the pre-programme questionnaire. Every other child gave more positive answers to one or more questions. Interestingly, the 2 children who gave negative answers to the open question were not those who scored lower on the other questions.

The responses to the open question were all positive about the Suas programme, with two exceptions. Pupils described the programme with positive adjectives, and some described their mentors (as nice, kind, or caring). Others focused on the maths element, with 13 children saying that it had helped with maths, and an additional 7 saying that they like or love maths.

The Count Me In Report²⁰ says that charities have an important role to play in improving numeracy. One of the four most important benefits from intervention programmes is 'changing attitudes and behaviours'. Motivation people to improve their numeracy skills and no longer saying "I can't do numbers" makes a very real difference to children's aptitude to maths.

²⁰ https://www.nationalnumeracy.org.uk/sites/default/files/resources_report_-_count_me_in.pdf

4.0 Consultation with Volunteer Mentors

The Key Performance Indicators for the programme specified that 888 trained volunteers were to be recruited (288 mentors in 2018/19, 600 mentors in 2019/20) and would acquire, through their training and delivery, a greater awareness of the experience of struggling learners and the competence and confidence to support children to learn. In 2018/19 the programme recruited, vetted and trained 298 volunteers to deliver one-to-one support to children struggling with maths, (103% of the mentor participation target for 2018/19). Volunteers primarily came from secondary schools, the community (e.g. retired people and parents), third level education, and corporate sectors.

Volunteers are at the heart of the Suas Programme and key to enabling improvements in children's numeracy skills and confidence levels. Based on feedback from volunteers, the training sessions have evolved over the pilot and early phases of the programme. The training programme is segmented into the following areas

- Why volunteer with Suas and the Suas Mentor role
- Introducing the Maths Buddy materials
- Developing numeracy skills
- Working with Children
- Safeguarding Children
- On-going Communication

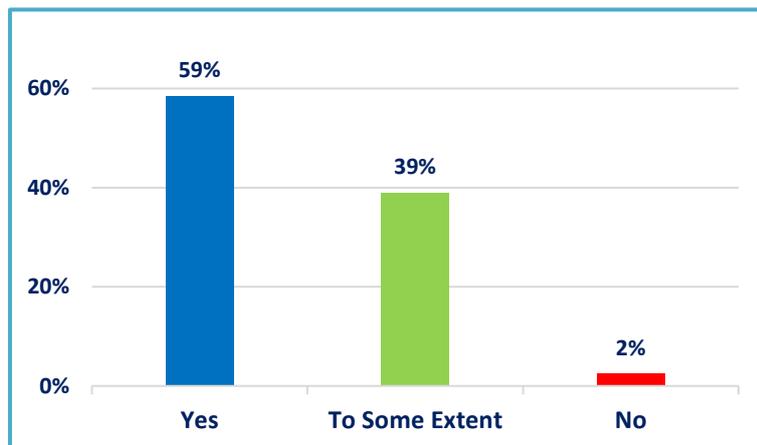
The training prepares the Mentors for the first session and the resources are available to all at the training. Briefing sessions are held after the training and before the intervention begins in each school. This brings together the Mentors, the school staff and the Suas representative to enable the school staff to introduce their school, some of the challenges facing their children that will be involved and their aspirations for the programme. It is also the opportunity for volunteers to ask questions. Guidelines in relation to reporting absenteeism of either mentor or participant child are also discussed at the briefing.

4.1 Questionnaire Surveys and Focus Group discussions

A questionnaire survey was circulated to all mentors in autumn 2019 and was completed by 44, focus groups were held with three groups comprising, transition year students, a corporate who released staff to mentor on the programme and a group of mentors from the community including parents, retirees and retired teachers. This section will discuss the findings from the survey and focus group discussions under the themes explored through the questions.

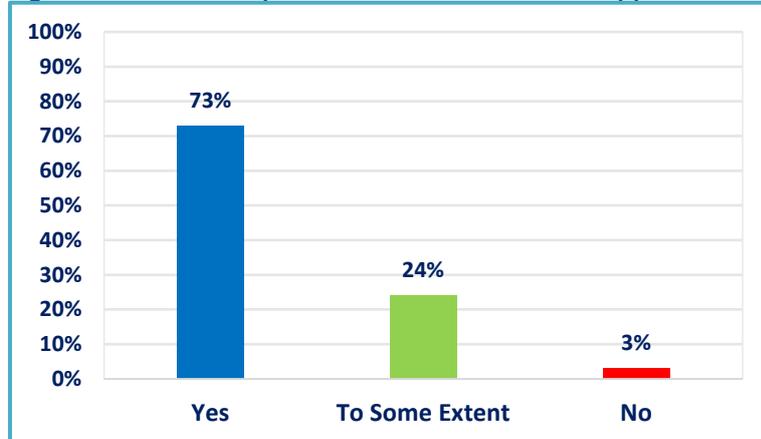
4.1.1 Training

Fig. 1: Greater awareness of the experience of struggling learners



98% of respondents felt that the training increased their awareness of the experience of struggling learners. This finding was also endorsed in the focus groups particularly by those in the middle age profile who, having left school some 30-40 years ago, were not aware of the challenges encountered by the children of today.

Fig. 2: Increased competence and confidence to support children



97% of respondents indicated that the training had increased their confidence and competence to support the children. Getting clarification on their role and insights into the challenges were important components of the training for many mentors. We have included a number of

comments for consideration from the responses to the question about possible additions to the training programme.

“My lack of teaching skills was evident to me and mentors might benefit by additional preparation as to how best to impart knowledge”.

“Some training on games or tricks to help the children that were struggling to concentrate or got easily distracted/had no interest in books”.

“It would be beneficial if some tips are given in terms of trying to keep the children's attention”.

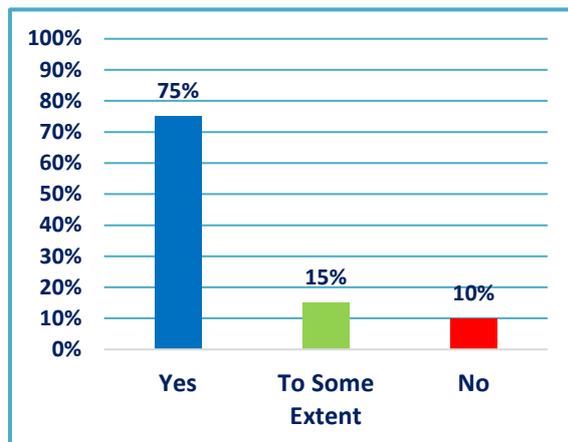
“Some mentors focussed on maths subjects such as addition, subtraction etc. whilst others played games like snakes and ladders. A more organised curriculum might be beneficial”.

“I would suggest a meeting of all mentors to discuss their experiences, Good, Bad or otherwise, basically sharing feedback”.

“Don't think so as all depends on relationship between child and mentor -as each child is unique, each mentoring session is tailored to suit that child's capabilities on the day”.

4.1.2 Communication and Information

Fig. 3: Effectiveness of communication



90% of the questionnaire respondents felt that communication with Suas was effective. The transition year mentors indicated that they had a dedicated contact point in the Institute whom they engaged with on matters relating to their role. The corporate also had one central liaison person who relayed information to and from Suas and their mentors. The community mentors had the contact details of the relevant Suas staff member whom they

communicated with when required. Some mentors took the opportunity to chat with each other before and after sessions. General feedback on and suggestions to improve the communication with Suas included;

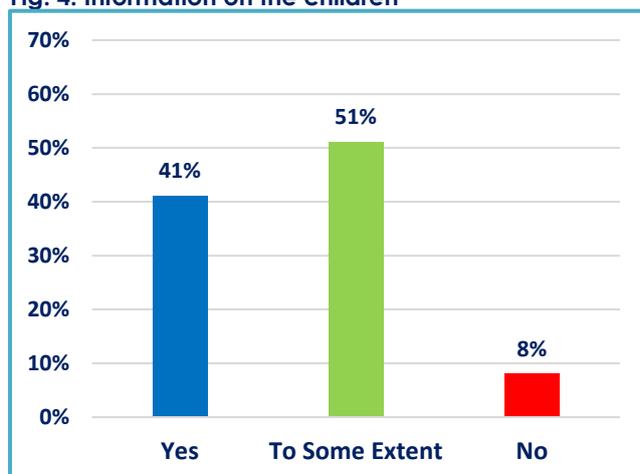
"I had all the relevant contact details if I needed anything or if there was an issue. I didn't need to contact anyone as the programme worked out really well. The training and briefing session has all the information that I needed."

"Regular check ins in person would be helpful. Didn't feel like we had regular access to a support person from the charity or school".

"WhatsApp group was a good idea but not always effective. A call or email would be better and someone to drop in at least once after the first two or three weeks".

"It was good to be able to chat before and after the sessions to support each other and remind each other that each child was working at their own pace and we were not in competition with each other".

Fig. 4: Information on the children



92% of participants indicated satisfaction fully or to some extent with the information provided beforehand on the children that they would be working with. There was a recognition that GDPR was a limiting factor in the sharing of such information. Some felt that a meeting/communication with the child's maths teacher in advance would have assisted the mentor in identifying the weaknesses of the child and where the

focus of their intervention should be.

Others highlighted that such discussions did take place with the teacher in advance or at stages throughout the programme. Suggestions for additional information on the selected children from the questionnaire responses included;

“Why they might have been picked to participate. Were they lagging behind in their class or were they picked because of their personality? This type of information would have been useful to have”.

“We had no information. We just got to know their needs as the weeks went on and just as we started to be able to help them our time was up. A meeting beforehand where we were told about the individual child and his or her needs would have been a great help”.

“Area(s)/concepts that the child finds difficult in maths and what work/revision would best suit the individual child”.

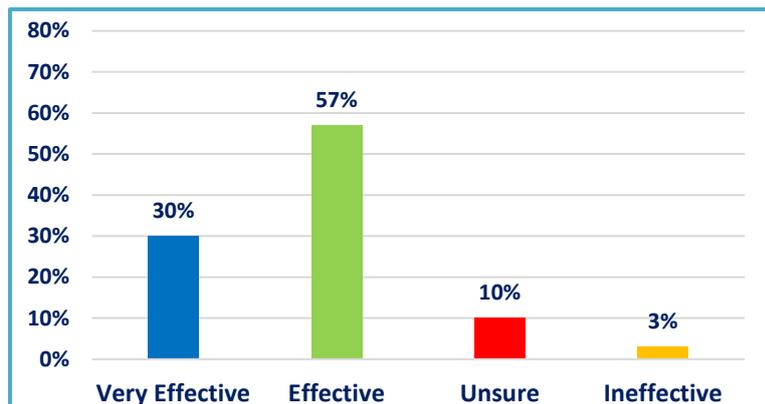
“The one learning that I have got is that it is worth talking to the children's teacher to find out what areas to concentrate on. I had a child whose maths is quite good, however on talking with the teacher, I learned that she struggles with reading maths problems as opposed to doing the actual maths. If I had been aware, I would have tailored the time with her to address this with her”.

4.1.3 Resources

97% of respondents were satisfied with the level of resources made available to them with 95% indicating that they found the bespoke resources ('Power of 2' workbook, 'Maths Buddy' workbook and supporting play materials) easy to work with fully or to some extent. Suggestions for additional resources or tweaks to existing ones included;

- “The workbook was very poor quality. Bound so that some of the information was stuck in the centre. Poor quality photocopying”.
- “More colouring activities in the workbook would be helpful as they were popular with children”.
- “The book and workbook were far too difficult”.
- “No colouring pencils in kit, the previous time I found the children liked them”.

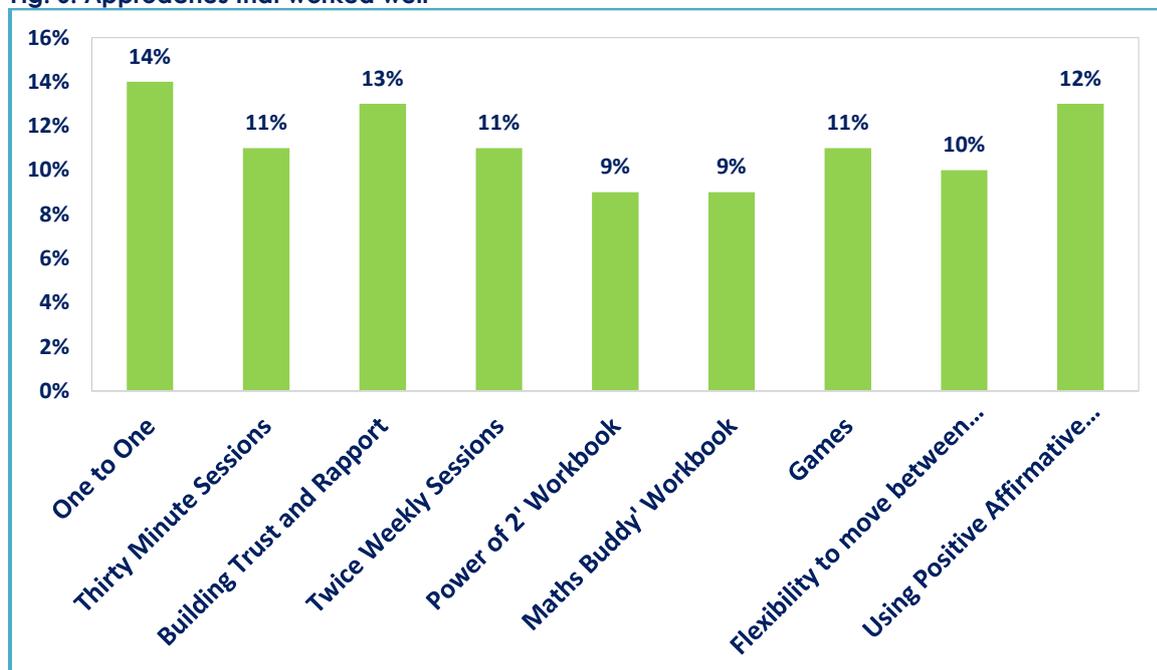
Fig. 5: Effectiveness of the bespoke resources



87% of questionnaire respondents felt that the bespoke resources ('Power of 2' workbook, 'Maths Buddy' workbook and supporting play materials) were either effective or very effective. General feedback and suggestions for improvement included;

- “The power of 2 is excellent. Packs of cards very helpful”.
- “A smaller power of two book would be better so the child feels a sense of satisfaction. One of my children decided they wanted to set their own target, which they achieved. He really liked seeing that we were getting closer”.
- “The power of 2 book assumed knowledge of multiplication and division including recognising the symbols which the children had not covered in class”.

Fig. 6: Approaches that worked well



The one to one support offered by the Suas mentor was identified as the most effective aspect of the programme. This enabled a relationship to develop between pupil and mentor which engendered trust and was a key enabler for positive participation. It was also an effective mechanism for the mentor to get to know the strengths, abilities and learning

styles of the child. The respondents also offered insights into other approaches that worked for them.

“Discussions about maths and its relevancies. The pupils allocated to me seemed to develop an understanding that an appreciation of maths would ultimately be of benefit”.

“Finding their interests and working with that. I had a very shy little boy with poor concentration. However, I found out that he loves Liverpool football club and made worksheets where we were adding the numbers on the players’ shirts. He became so engaged”.

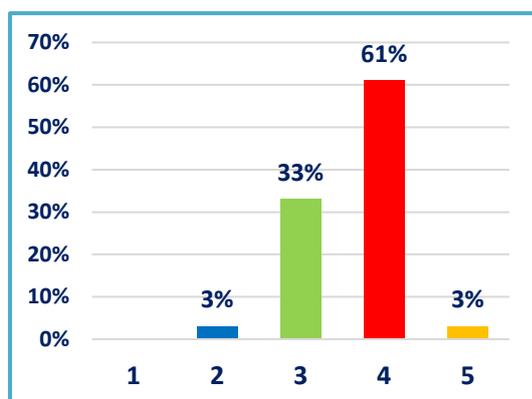
“Giving them the opportunity to work things out for themselves, sometimes they needed encouragement to believe they could”.

General feedback and suggestions for improvements to the programme included:

- “More selection of games, just to mix the session up. Providing substitutes so that the child is not uneasy if they have to join another session and they are not up to the level”.
- “Having some sub volunteers to fall back on. For nearly every week during the programme, we were taking two children at once which defeated the purpose of programme and we didn't make as much progress as possible”.
- “References to where the mentor can source material when Suas material doesn't work”.
- “Maybe some flexibility when using Power of 2 with children who find its format a challenge”.
- “Duplicate resources in the box in the room as when one mentor is using a resource the others have to wait for their chance”.

4.1.4 Improvement in Numeracy Skills

Fig. 7: Improvement in Numeracy (1=Very low 5 =Very high)



97% of respondents felt that there was some improvement in the numeracy skills of those that they tutored with almost two thirds rating this improvement as high. Some mentors saw a correlation between improvement in confidence and being more engaged with the programme with improved mastery of the tools and workbook. Others cited difficulty with the child's retention of the information necessitating them

to reaffirm the learning in subsequent sessions.

"Both my pupils were very proficient at the maths subjects as set out in the "Power of 2" booklet to such an extent that we got to page 100 early in the programme. I expect that both of them will manage the rest of the book quite well".

"The children were enthusiastic about their lessons and loved the fun element of learning math by using the supports provided. This had a knock-on effect and it was possible to see an improvement in their confidence with math in general with using the workbook and Power of 2 book".

"One child learned quite quickly but was easily distracted and was more interested in the games. After the 7 weeks she had sufficient interest and focus from a concentration point of view. The other was so enthusiastic but lacked confidence, I think the one-to-one boosted her confidence, but a longer course would have really helped her more".

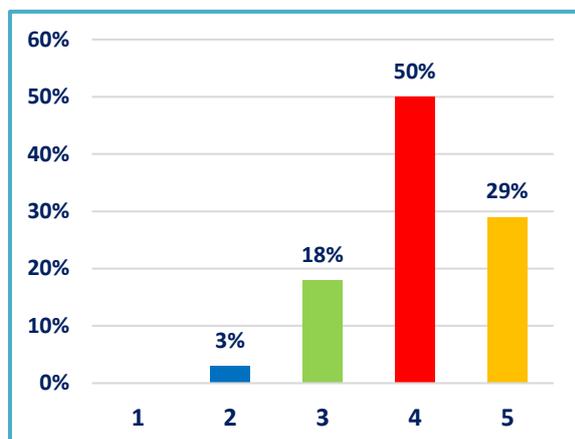
- *"Both my students were capable, and with 1 on 1 coaching, were able to master several concepts, some concepts/abilities even which hadn't been covered in their classroom yet".*

"More confident in answering questions by the end of the programme and delighted to have learnt concepts of multiplication (doubling) and division (halving). The children said they had learnt a lot and enjoyed the programme".

"Some children don't realize that they are good at maths, so it was their confidence that made them more willing to give an answer".

4.1.5 Improvement in Confidence & Self-Esteem

Fig. 8: Improvement in Confidence & Self Esteem (1=Very low 5 =Very high)



97% of respondents felt that there was some improvement in the levels of confidence and self-esteem of those that they tutored with almost 80% rating this improvement as high or very high. Many viewed this outcome as being more visible and apparent than that of improved numeracy. This is in line with academic theory which articulates that confidence is a necessary pre-requisite to improved academic attainment.

"I think once they got comfortable with me, they began to trust me and grew in their confidence and self-esteem. It's so important to praise them for the work & effort they put in".

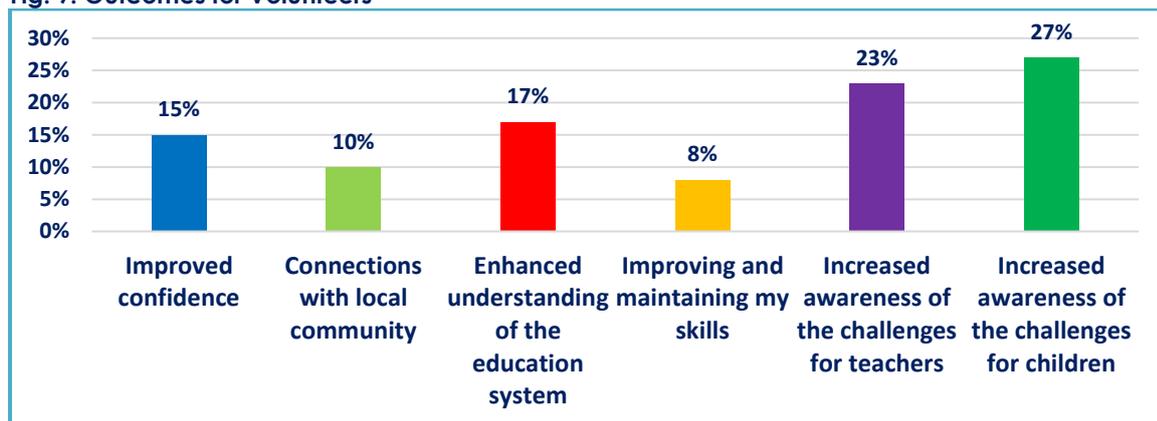
" Both my students enjoyed the attention and growing confidence in their abilities. One student, prone to giddiness/inattention/distraction seemed to settle down over the weeks".

“Both children relaxed as the weeks went by. One took great pleasure in his achievements. The weaker child made eye contact, which he had not done at the beginning and as the weeks went by enjoyed the program more and more”.

“The children enjoyed being taken out for one to one class, they got praised when they did well, they always enjoyed the last 10/15 minutes when they could play cards/games. They went over or learned new maths while in class”.

4.1.6 Outcomes for Volunteers

Fig. 9: Outcomes for Volunteers



50% of the respondents reported that the most significant outcome for them was an increased awareness of the challenges for teachers and children in the current education system.

- “It was a great way to see how flexible you could be in teaching math with the resources available”.
- “I was unsure if I would be suitable for the challenge. But have reregistered to go again next session”.
- “Suas has been a very positive experience for me so far”.
- “An appreciation of difficult backgrounds some children have - the reality of homelessness”.

95% of respondents rated their experience of mentoring on the programme as being positive or very positive while 83% indicated that they are certain that they will volunteer again on the programme with a further 13% unsure. Not knowing what their personal

commitments will be in relation to work or study was a prominent factor in not being able to commit to volunteering with Suas again at this point.

"I found it worked very well and was very well supported by the school. I found the Power of 2 textbook excellent".

"Such an awesome programme and such a wonderful initiative to help with our very young future leaders of the world! Well done".

"It was a great experience for me. The children were a pleasure. They were all so kind respectful and mannerly. The staff were very grateful and appreciate of our help".

"It is a great program, one that I would definitely recommend to others to participate it. As a mentor, there is a great sense of achievement when you see the children improving with you".

"I am looking forward to continuing with my two mentees in the New Year. Queen of Angles is a model of good practice when it comes to facilitating the delivery of the Suas program. They are really well organised".

4.2 Summary

The consultation with the volunteer mentors has evidenced high levels of satisfaction with the training in relation to increasing Mentor awareness of the needs of struggling learners and building their confidence and capacity to support such learners through the Suas numeracy programme. The Suas programme works particularly well when there is a briefing session held in the period between the training and the commencement of the programme in the respective schools in advance which introduces the school and teachers to the mentors.

This session introduces the school and teachers to the mentors and provides an opportunity to review the most salient points from the numeracy training and confirm communication and reporting arrangements. Ideally the children should be selected for the programme at this stage with a discussion between teacher and mentors on participants' strengths and weaknesses in numeracy. Input from the maths teacher at the briefing session was highlighted as being of significant value.

Delivery of the programme worked best when there was a designated supervisor in the school (in many cases this was either the learning support or maths teacher). This facilitated an on-going dialogue between the mentors and teachers and clarified presenting issues from the delivery of the interventions.

5.0 Summary Findings and Recommendations

This final section of the evaluation report sets out the findings and recommendations.

5.1 Findings

The following findings have been collated based on our analysis of the qualitative and quantitative data generated through this evaluation and the review of programme data.

5.1.1 Strategic Relevance

The Suas Numeracy Programme was designed to meet need evidenced in policy and strategy. Educational disadvantage refers to the situation where some individuals get less benefit from the education system than their peers, with the majority of children underachieving academically coming from disadvantaged backgrounds.

The National Literacy and Numeracy Strategy (2011-2020) recognises that children from designated disadvantaged schools (DEIS) are at greater risk of failing to acquire basic literacy and numeracy skills. All Schools reported that strategically the Suas Numeracy Programme linked in with the ethos of their Schools, providing opportunities for children (from disadvantaged backgrounds) to achieve their potential.

5.1.2 Implementation

Suas have proven experience and expertise acquired over many years in the design and implementation of educational development programmes for children from the most disadvantaged communities in Ireland. Their innate understanding of the educational needs of disadvantaged children is again evident in their design and implementation of the numeracy programme. The programme is innovative in design with a mix of academic and fun-based learning resources.

Volunteers have been recruited from a wide range of different occupational and educational backgrounds which has brought great diversity to the delivery of the programme. The training, briefing and on-going communication with Suas has enhanced the confidence of Mentors to deliver the programme by having structured resources being adaptable to situations that may present.

Schools have been effectively engaged and have quickly identified the value of the programme for students who are not academically weak but do require additional support and resources to realise their potential. All of the schools who participated in the evaluation have indicated that they will continue to host the programme with many seeking to enrol additional students to the programme in future terms.

5.1.3 Analysis of objectives vs results

The main objectives of the programme were to improve the capacity of the child to learn maths and simultaneously to enhance their confidence and self-esteem. The quantitative and qualitative data generated and analysed for this evaluation points to the successful achievement of some objectives.

School staff also believed that the children's numeracy skills had improved. School staff were unanimous in stating that the Suas Numeracy programme has been beneficial to their pupils in terms of a growth in confidence and self-esteem; leading to an 'I can do maths' belief in themselves. Pupils who participated on the Suas Numeracy Programme became more focused in class maths, displayed greater interest in maths, and actively participated in lessons (demonstrated by putting their hands up to answer questions in class and completing class assignments).

The Evaluation Team believe that the benefits in relation to long term achievement in maths in addition to the personal, social and emotional development of the participants would be scalable if further grants were to be made in the future. In fact, were the resources available to deliver additional interventions to those children who have already received one programme of interventions, their development would accelerate.

At the end of every interview with School representatives the Evaluators asked if they wished to engage in the Suas Numeracy Programme in the future and if they would recommend the Suas Numeracy Programme to other Schools; every School (n = 21) responded "yes" to both questions.

5.1.4 WRAT5 testing methodology and other evaluation tools

The WRAT-5 test scores showed that 67.5% of the children's maths age in months scores had increased when comparing pre-programme and post-programme data; with 17 children's maths age increasing by 9 or more months. All Schools believe the WRAT-5 Test to be a robust assessment tool. As noted previously, a UK company selling numeracy intervention programmes highlighted an average of seven months' progress in 14 weeks²¹.

The mean age difference for the maths age in months was an increase of four months, following the seven-week Numeracy intervention. This suggests that the Suas Numeracy improvements, as measured in months should be viewed as a success. Furthermore, the children engaging on this programme all attend DEIS schools. Suas has been advised by NEPS that one would not expect to see some of the pupils in DEIS schools change at a 'normal' rate i.e. that their maths age would not increase by two months over two months. This further validates the mean four months increase in maths age as a significant improvement. The pre- and post- Programme questionnaires, completed by children, are an important indicator as to the success (or otherwise) of the Suas Numeracy Programme. As noted previously in this Report; children having a negative attitude and lack of confidence maths can be as much of a barrier to overcome as academic ability.

The Evaluation Team reviewed and revised the pre- and post- Programme questionnaires to be completed by participating children, achieving the required aim to make them shorter and to be able to assess attitudes and progression in confidence, self-esteem, numeracy skills, and motivation (linking directly to the Programme objectives). Feedback from the children about the 'softer' benefits of the programme is important; and, as teachers highlighted, has an impact on their participation during class maths lessons, as well as improvements in numeracy.

Evaluation questions for the Suas Mentors, building on a previous version used by Suas, was developed; which can be used as an online survey (e.g. using Survey Monkey) or with which to facilitate focus group discussion. Both approaches were piloted during the evaluation process; and both worked well (although as would be expected the focus group approach requires more resources).

The Evaluation Team also developed a series of questions which were used in structured telephone interviews with School representatives. The interviews took between 20 and thirty minutes; with 21 of 25 invited Schools participating in the process. These questions could be adapted into an online survey; and Schools could be asked to complete this as part of their commitment to the Programme.

²¹ <https://thirdspacelearning.com/blog/primary-school-interventions/>

Feedback from all stakeholders could be used by Suas in the future – both to inform Schools about the benefit and impact to Schools and pupils to engage, and when seeking to recruit more volunteers.

5.1.5 Key Learning

Through on-going internal evaluation and data collection for programme reporting, Suas have already identified and implemented key learning to enhance the Numeracy Programme. This has included improvements in the training and support of Mentors, creating systems to manage programme expansion and increasing numbers of volunteers, increasing programme participation and quality through additional key partnerships, and securing funding for development of their overall programme of work in DEIS schools.

5.2 Recommendations

The following recommendations are proposed based on consultation with all stakeholders in the Suas Numeracy Programme (i.e. representatives from the Suas Team, Schools, participating children, and the Suas Mentors). Analysis of the qualitative and quantitative data generated through this evaluation and review has led to a series of recommendations that may support Programme review and ongoing improvement.

5.2.1 Tailoring the Suas Numeracy Programme and Resources

Suas has produced a Suas Volunteer Briefing Session Guide, to be used when the Mentors with a member from the Suas Team meet with the School. It is recommended that Class Teachers attend at least 15 minutes of this Briefing Session (which may entail extending the timing of the Briefing Session) whereby the Class Teacher can give an overview of the level of each pupil, and maths areas in which they are struggling. Alternatively, this could be provided for each child in a couple of written paragraphs.

There is an assumption that the Power of 2 Workbook 'is a one size fits all for children – which it does not. Feedback from some Schools suggested that the Numeracy Programmes would have greater impact if they were tailored more towards the needs of each pupil; and in some cases that the maths exercises and topics were too advanced for some children, especially those in 2nd Class (for example the Mentors were doing long division and multiplication with the children, which they had not yet started in class). When the pupil is not at the appropriate level to positively benefit from the Power of 2 resource, it is recommended that Suas signposts the Mentors to 'Suas approved' Internet resources appropriate to 2nd Class pupils.

Furthermore, the Evaluation Team endorse the pursuit by Suas with the publisher to develop a smaller version of the Power of 2, to only include the parts that are attainable for the targeted participants (2nd Class and 3rd Class - which is likely to be Parts 1, 2 and 3). This is partially due to the fact that it would not be possible for any teacher to complete the Power of 2 resource within the timeframe allocated to the Suas Numeracy Programme, and there are concerns that the current resource may lead to unrealistic expectations or place pressure on the Suas Mentors.

5.2.2 Non-availability of a Suas Mentor

A frustration expressed by Schools, is when they do not know that a Mentor is unable to attend. Unavoidable personal circumstances or illness are inevitable from time to time; however, a School not being aware that a Mentor is going to be absent on a certain day can the credibility of the Suas Programmes. Currently, when a Mentor cannot attend School, they are supposed to contact Suas, who in turn contacts the School. It would be much simpler if the Mentor would contact the School directly, rather than go through a third party, which is currently the recommended protocol. The reinforcement to the mentors at induction and throughout the programme of the importance of communicating planned or unforeseen absences

5.2.3 Feedback to Class Teachers about the Suas Sessions

Suas includes a Mentor Report form for the Volunteers to complete after each session (i.e. twice a week). However, some Schools reported that they did not know what topics had been covered, what the pupil now understands, and where the child is still struggling. Suas needs to remind the Mentors that this should not only be completed after each session, but that it should also be left for the class teacher to access. Suas may also consider implementing a simple form for the child to complete at the end of each session, which could be given to the class teacher and also taken home to parents. This could simply be a form with a row for each session and three columns; as shown below:

Session 1	Today my Suas Mentor helped me with	Today was			
			Good	A bit hard	I need more help
session 2	Today my Suas Mentor helped me with	Today was			

		 Good  A bit hard  I need more help
Session 3	Today my Suas Mentor helped me with	Today was  Good  A bit hard  I need more help
....		

5.2.4 Review the Suas School Pack

It is recommended that Suas reviews the School Pack in line with some of the recommendations made in section 3, and includes a Top Tips for the implementation of Suas Programmes in Schools, with a note alongside that these Top Tips have come from Schools that have successfully implemented the Programmes. This suggestion was discussed during some of the interviews with Principals and Teachers and felt to be a valuable way forward.

5.2.5 Parental Engagement

The longevity of the learning from children’s participation in the Suas Numeracy programme could be extended and increased through parents gaining a greater understanding of how they can support their children’s numeracy skills at home. Whilst developing opportunities for parents to be involved has resource implications, the opportunities for improved home: school routines and parents supporting children’s learning could significantly impact positively on the benefits for children engaging in Suas interventions – and extend the learning into future school years.

Parents could be invited to a ‘how to support numeracy skills at home’ Workshop. Parents could receive a handout about how they can support their children’s numeracy at home – for example counting stairs, measuring ingredients for cooking, the monthly calendar, or dice games, which brings mathematical concepts into real life.

The session could also include current Maths terminology and how children are taught various numeracy skills (such as long division of multiplication, which may be different to when their parents were at School). It could also raise awareness that if parents say words to the effect that ‘oh I never understood maths at school’ or ‘maths is so difficult’ that this has a negative impact on their child’s confidence in understanding maths.

A ‘quick win’ to involve parents more would be if the Mentor Report, or a simplified version, could be shared with parents, either on a weekly basis or at the end of the Suas Numeracy

programme. This would encourage children to talk with their parents about the Programme, and give parents an insight into what their child is learning in maths.

5.2.6 WRAT-5 Test

Feedback from Teachers strongly suggests that the Schools place value on the credibility of the WRAT-5 Test; and that there is no need to change the administration of the WRAT-5 Test with an alternative approach. However, consideration should be given to the scheduling of the tests to ensure that it provides the child with the best opportunity to prepare and perform to their maximum.

5.2.7 Children's Evaluation of the Suas Numeracy Programme

It is recommended that Suas continue to use the revised evaluation questionnaire for children pre- and post- the Suas Numeracy programme. Feedback from the questionnaires should be forwarded to both the Schools and the Suas mentors as well as the funders; as it provides valuable feedback to these important stakeholders of the programme.

Schools could be made more aware that feedback from the Surveys and Children's questionnaires is used to review programme delivery, with a focus on continual improvement. Therefore, as part of their commitment to the programme they should formally agree to return paperwork in a timely manner (for example within three working weeks). This requirement should be included in the Suas School Pack.

5.2.8 Training and Briefing Sessions with Suas Mentors

The Suas Numeracy Programme has a certain structure for volunteers to follow while allowing some flexibility to respond to the needs of different children. The Power of 2 resource is trying to cater to different levels and gets gradually harder as children work through the book, but an underlying principle is that in the one-to-one sessions the Mentors would not be doing what has not been done in class. It is recommended that these key messages be reemphasised and discussed within the Mentors training and the briefing session with teachers. Furthermore, it is strongly recommended that the Numeracy Programme should not commence in schools until a briefing session is completed.

5.2.9 Sharing Information

Some schools are reluctant to share information about children to volunteers due to General Data Protection Regulations (GDPR). It is recommended that the sharing of information to assist the Suas Mentor to deliver a positive outcome for the child be further explored through the parental consent process. This could be framed around parents consenting to the school sharing information on individual participants that is deemed to be essential for the effective delivery of the programme. Information shared should not only relate to an assessment of academic skills and areas where the child is struggling, but also to any special needs or issues that the child experiences.

5.2.10 Mentor Meetings

The facilitation by Suas of 'Mentor Meetings' is recommended in each school mid-way through the programme. This would augment the communication process between Suas and the Mentors and conversations between the Mentors, enabling peer review, peer learning, and discussion on presenting issues in the delivery of the programme. To maximise efficiency, such meetings could be held on the same day as the delivery of the interventions.

5.2.11 Increasing the Mentor Pool

In looking to increase the mentor pool and have increased flexibility to provide substitute cover, it is recommended that Suas consider the profile of the sampled mentor base. 76% of the mentors had previous volunteer experience, with over 40% indicating that their primary motivation in volunteering for the Suas programme was using latent skills from their teaching or professional careers.

54% of respondents indicated that getting involved in the local community or sampling a new experience was their rationale for involvement. Many of this cohort found out about the programme through local community publications or social media. Similar programmes elsewhere (for example Back on Track, delivered by Sólás in Northern Ireland) have identified the use of Church Bulletins as the best source of recruiting volunteers.