THE
BEHAVIOURAL
INSIGHTS
TEAM

EDUCATION

BIT Review
2021-22

Projects

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Increasing engagement for new university students

Following the switch to digital learning during the pandemic, the University of Leeds (UoL) developed an online induction to initiate new students called Getting Started at Leeds. The purpose of this programme was to help students get off to a good start, by providing access to:

- Practical support (e.g. how to register, enrol in modules)
- Academic skills support (e.g. access to library training sessions)
- Information about student experiences (e.g. case studies of current students)
- School level activities, specific to the student's course (e.g. timetables, personal tutor introductions, virtual field-trips)

To support the roll out of the new programme, UoL commissioned BIT to explore student experiences of university induction and apply behavioural insights to UoL emails to promote uptake and engagement.

BIT conducted qualitative interviews with students and staff at UoL which suggested that the following approaches could help to promote use of the Getting Started at Leeds programme:

- Sending regular, timely communications about the new induction programme via the university's virtual learning environment to help students feel informed.
- Using peer and staff messaging to reassure students that it's normal for it to take time to adjust to university.
- Highlighting the social benefits to induction (even though it was digital) to help motivate students, as meeting new people was a key driver for engagement, and that induction helps new students find out how the university works, what is required of them, and learn about their course.

Drawing on these insights, BIT designed a set of four behaviourally-informed emails to boost student engagement with the new induction programme. The messages aimed to normalise concerns about belonging at university during the transition to higher education, encourage planning, and simplify email content.

The impact of these emails was assessed using a randomised control trial in which students were randomly allocated to receive either the four original UoL emails (the control group) or the four behaviourally-informed emails (the intervention group) in September 2020. The sample included 2573 first-year undergraduates.

The analysis revealed that the four behaviourally-informed emails led to a significant increase in student engagement with the Getting Started at Leeds platform. On average, students who received the intervention emails logged on more times to the platform (0.93 vs 0.82 logins per student, an increase of 13.4%), spent more time on-site (16.9 vs 12.9 minutes, an increase of 31%) and viewed more induction web-pages (5.55 vs. 4.06 clicks-throughs onsite, an increase of 36.7%).

These results show that small, no-cost changes to UoL email communications can be applied to boost uptake and repeat use of digital induction resources.

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Making up for lost time

Tutoring is one of the most effective ways to accelerate pupil progress. Indeed, its potential galvanised the creation of the National Tutoring Programme (NTP) – the UK Government's flagship response to learning loss from school closures during the pandemic.

But pupils are only able to benefit from tutoring if they both attend sessions and actively engage while there. To better understand the barriers to attendance and engagement with tutoring, the Education Endowment Foundation (EEF), the managing organisation of part of the NTP, commissioned BIT to see what worked to increase attendance.

Through conversations with tutoring providers and tutors themselves one insight came up consistently: when pupils had a better relationship with their tutors, they were more likely to turn up to sessions and engage more positively. With this in mind, the trials primarily sought to improve tutoring attendance by improving the relationships between pupils and their tutors.

Two rapport-building interventions and a third 'reminder' intervention were developed aand tested as randomised control trials with more than 16,000 pupils and 1,800 tutors across the UK.

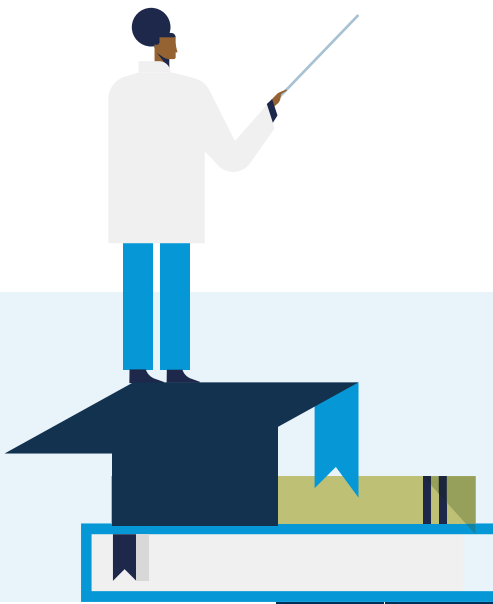
Research has found that informing teachers and pupils of their similarities can boost teacher-pupil relationships and subsequently improve academic achievement. With this in mind, the first intervention involved both tutors and pupils taking part in a fun 5-minute online quiz about their interests and preferences. After completion they each received a summary of 5 things they had in common. Tutors also received reminders about these similarities and prompts to weave them into future tutoring sessions.

This was tested with 9,000 pupils and 700 tutors in a randomised control trial. It increased attendance at tutoring sessions by 4.2 percentage points - pupils scheduled to attend 15 one hour long tutoring sessions attended an additional 0.5 sessions on average. The result was statistically significant and consequential in practice. Interviews with tutors suggest that Snap Survey helped improve pupil attendance by improving the quality of the pupil-tutor relationship, and allowing tutors to tailor the content of tutoring sessions to pupil interests.

The second intervention focused on prioritising tutoring relationships and included 2,600 pupils and 1,100 tutors in the trial. Tutors were encouraged to complete a training activity in which they were shown a series of different relationship-building strategies (e.g. creating routines or celebrating mistakes) used by other tutors, and then prompted to develop their own. Two weeks after completing the activity, tutors received a reminder with the strategy they had created.

The third intervention aimed to ensure that pupils remembered to attend sessions by incorporating a series of nudges into reminder emails that they received before their sessions – for example, a prompt to put a calendar reminder in their phone. These second and third interventions were tested against a control message with more than 4,000 pupils but neither led to measurable improvements in tutoring attendance.

There is more to learn about how behavioural insights can improve tutoring outcomes, for example testing ways to engage parents in their child's tutoring and improving communication between tutors and schools.



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School attendance

Chronic absenteeism in school can have serious consequences. For students, research has found that absences robustly predict academic performance, drug and alcohol use, criminality, and risk of later life adverse outcomes.

On the other hand, good school attendance – in-person, where safe – is critical in closing attainment gaps. In 2020 BIT worked on a project with Bristol City Council in the UK to improve attendance at their schools.

The project began with interviews with parents and identifying potential behavioural barriers. For example schools express attendance as a percentage. A '90% attendance' figure may sound positive and not indicate a behavioural problem. However in a school context this 10% absence rate equates to 15 days of school missed which is a serious issue.

Research conducted by Todd Rogers and Avi Feller in the US also inspired the team. Their intervention entailed sending messages to parents telling them how many days of school their child had missed while underscoring the importance of attendance and their ability to influence it. These messages reduced chronic absenteeism more than 10%.

Aiming to replicate their intervention, the BIT team ran a randomised controlled trial involving more than 9,000 students across 22 participating schools in Bristol. Parents in the treatment group received a text message in the same format that Rogers and Feller tested if their child's attendance was below 95% over the course of a half-term. This allowed the intervention to be dynamic and personalised, as well as giving students a fresh start each half-term. However, only one-third of parents in our treatment group received the intervention.

Unfortunately, the trial was forced to end four months early due to school closures at the onset of the COVID-19 pandemic which is likely to have contributed to the lack of a statistically significant result on the primary outcome measure of the student attendance rate during the project. This was 93.1% for the control group and 93.4% for the treatment group.

However, exploratory analysis revealed that:

- This approach boosted the proportion of students who kept good attendance records (95%+) by 4 percentage points (59.5% to 63.3%), and this result was statistically significant.

- The intervention was effective during the early stages of the pandemic - compared to the control group, students in the treatment group attended school more in the run-up to closures. This result was also statistically significant and indicates that this intervention could be effective at boosting attendance when in-person classes return, which is something we would like to test.

Overall, these findings suggest that simple text messages letting parents know how many days of school their child has missed, delivered at the right time, can make a difference to student attendance – even during extraordinary times. If everyone had received the treatment, an extra 350 students would have achieved good attendance records (95%+).

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Sharing learning tips by text

Pre-pandemic, about one in four children in the UK were not reaching the required level in language and literacy at the end of their first year at school. This figure has likely increased as children have had fewer opportunities for play and learning over the past two years.

Since 2019 BIT and the Education Endowment Foundation (EEF) have been collaborating on a project in the Early Years Education space to test Tips by Text, a text message programme for parents of Reception year pupils in the UK (age 4-5). The programme was first creaqted in the US by a team of researchers led by renowned education economist Professor Susanna Loeb at Brown University.

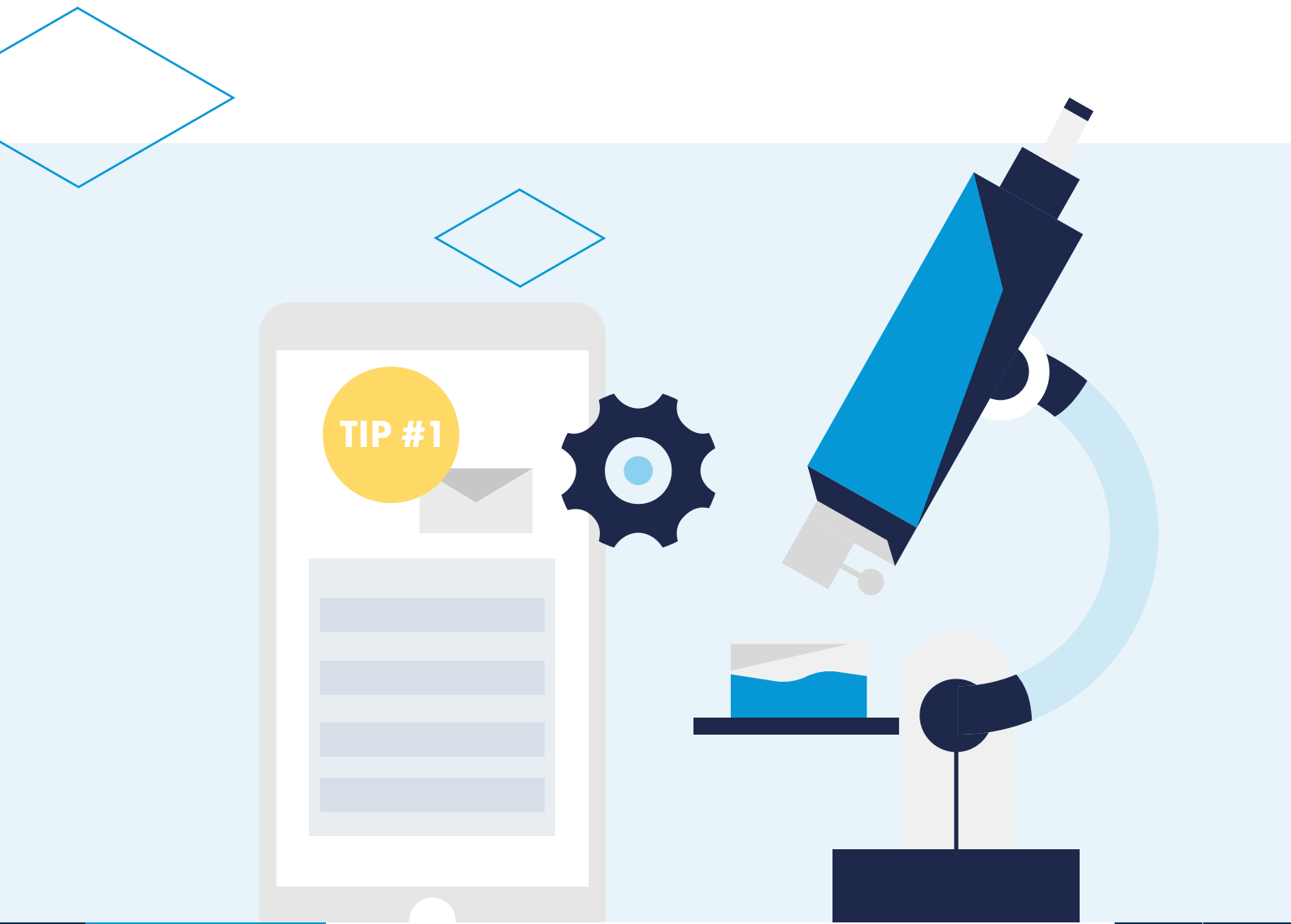
With support from Professor Loeb, BIT adapted the programme to align with the Early Years Foundation Stage Profile (the curriculum used in preschools in the UK). Parents received three text messages a week with easy, actionable information on what they could do to help their child develop language, literacy, numeracy and socioemotional skills at home. All of the text messages were crafted to embed activities in everyday life, requiring minimal effort on the parents' part.

In November 2019, we tested the programme with a group of 109 schools in the North East of England (about 3,500 families). EEF appointed The National Institute for Economic and Social Research and the Institute for Employment Studies to act as independent evaluators.

Half of participating parents were randomly allocated to receive the text messages while the other half did not receive them. The primary outcome measure was a literacy assessment (the York Assessment of Reading Comprehension).

Unfortunately, data collection was disrupted in January 2021 when schools closed due to an upsurge in COVID cases in the UK. Outcome data for 70% of the sample could not be obtained. For the 30% that could be analysed, we found a null result overall, which we expected given the high level of attrition.

When looking at the sample of pupils eligible for Free School Meals, a marker of deprivation in the UK, we found a directionally positive effect, equivalent to +1 month of schooling. However, this result was not statistically significant. Additionally, the Implementation and Process Evaluation suggests that parents enjoyed the messages, and found them helpful inspiration for other activities to do at home with their children (especially during the lockdowns).



APAC

Addressing parent behaviours that perpetuate excessive academic stress in Singapore

The Ministry of Education (MOE) in Singapore is encouraging a shift away from over-emphasising academic results to supporting students' development holistically. Parents are crucial stakeholders if this is to succeed.

In 2020, BIT collaborated with the Communications and Engagement Group (CEG) to help parents see the benefits of holistic student development. The collaboration involved piloting and evaluating a series of interventions to understand the mindsets and behaviours of parents as well as helping CEG build their own behavioural insights capabilities for behavioural insights work within MOE in the future.

BIT's initial research uncovered various parental behaviours that were challenging in this context such as parent-to-parent conversations that reinforced anxiety in education, and parental pressure on children to study excessively. To address them, we designed and tested two interventions aimed at encouraging parents to have more positive conversations about holistic development and wellbeing, and at reducing academic stress on children.

BIT's first intervention focused on influencing conversations in parent communities online, seeking to increase the number of positive and supportive comments on online forums with the goal of reducing pressure experienced by parents. Two prompts were tested, drawing on different behavioural insights to parents as they wrote posts on an online parent forum, which has more than 250,000 monthly forum visits. The first prompt appealed to one's identity and responsibility as a parent to support and reassure other parents, while the second drew on social norms, highlighting children's well-being as a prevalent concern amongst other parents.

Between January and February 2021, 370 public posts across 10 different forums were analysed for positive and negative sentiments across a number of categories. The study found that Identity prompt (Prompt 1) showed promise in reducing anxiety-inducing comments (comments that could make other parents feel anxious), and also reducing negative, parent-driven comments (comments interpreted as parents interfering with their child's agency, which could pressure other parents to do similarly).

The Social Norm prompt (Prompt 2) showed no statistically significant effects in the categories of interest. One overall finding was that negative comments did tend to have greater traction and influence online (generating more comments in response), so reducing these numbers overall may help reduce the negative discourse surrounding certain issues. The second intervention aimed to influence parent-children conversations by encouraging students and parents to reflect on behaviours and aspects that made students feel stressed, to plan actions to make them feel better, and to set goals.

The sample comprised 2,600 students across six primary schools in Singapore over two months. During the first week of classes, schools issued a parent-child activity package and a pre-activity survey to get a preliminary sense of parent-child conversations. After completing the activity, roughly about two months later, schools collected the exercise materials and the students and parents completed separate post-activity surveys.

The study found that parents and students were highly supportive of the activity and had strong, positive feedback about it. Among those who had completed the activity, there was a high follow-through rate on the plan the parent and child had jointly made. However, there was no significant difference observed between the control and treatment groups in terms of students' perceptions of their own well-being, their parents' priorities, and the quality of supportive conversations. As there was positive feedback on the activity package, including more follow-through activities that could be repeated or reinforced across a longer duration could have resulted in more substantive impact.

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Student wellbeing during the pandemic

Studying at university can be challenging at the best of times. Students are often juggling financial stress, tough course content, living or studying in a new city and changes to their friendships and social support networks, and the COVID-19 pandemic added significant additional stressors. The COVID-19 pandemic doesn't appear to have helped.

A 2021 academic study of Australian university students found that 65% reported low or very low wellbeing. These results are troubling as subjective wellbeing, which includes life satisfaction, social support and emotional status or "affect" is related to student success. In fact, emotional health is often cited as a key reason students consider leaving their studies, whereas students with social support are more likely to stay in university.

BIT Australia was interested in exploring how to proactively improve student wellbeing and social support and so in collaboration with the Australian Department of Social Services and Western Sydney University (WSU) designed the Wellbeing Project. This is a five-week series of text messages encouraging students to practise wellbeing-supporting behaviours.

From October 2020 to November 2020, the BIT team tested the Wellbeing Project using a randomised controlled trial with 1,116 students. Half of the students were in the treatment group and received 3-5 text messages a week prompting them to practise a behaviour to support their wellbeing, such as expressing gratitude to someone or doing a kind deed.

Students in both the control group and the treatment group were asked to complete surveys at the beginning, mid-point and end of the trial period. These surveys measured several contributing factors to wellbeing, including students' life satisfaction, social support and how connected students felt to their communities.

The intervention had a significant positive impact, increasing life satisfaction (as measured by the UK Office of National Statistics scale) by 0.49 units. For context, on average, 0.5 life satisfaction units is the approximate difference between those with an annual household income of AU$18,000 compared to those with an annual household income of AU$27,000.
The group receiving the messages practised and expressed gratitude to others in their lives more often, talked more often to people in their life that support them and felt more connected with their community compared to the control group. These are positive outcomes that suggest the benefits of the intervention are not only seen in life satisfaction, but also in people's daily lives and relationships with others.

The qualitative evaluation built on the quantitative results. Several responses to the text messages indicated that students were struggling with stress and isolation on a daily basis, but students appreciated the reminders sent to them throughout the week. Students found that the text messages (for example prompting them to reflect on small things they are grateful for) helped them keep things in perspective.

> ***This demonstrates that small nudges, such as text messages to reflect on the things students appreciate, have the potential for large impacts on life satisfaction, resilience and practice of wellbeing-enhancing behaviours.***

APAC

Young people and online ethics

Technology has fundamentally changed the way young people grow, learn and interact. Every decision to pick up a mobile phone, post an image, reach out to a friend, or 'pile on' when someone has posted a controversial statement, can have huge and long-lasting consequences. How we help young people navigate through these choices to become socially conscious adults, is one of our most pressing social and policy challenges..

In Australia BIT has been collaborating with the Vincent Fairfax Family Foundation (VFFF) and The Alannah and Madeline Foundation (AMF) over the last four years to develop and test an intervention to help young people behave more ethically online - that is, being more prosocial and less antisocial.

Together, BIT, AMF and VFFF conducted a multi-staged study involving research, solution design and rigorous field testing to pilot a programme for students aged 14-16 called 'Digital Compass'.

Digital Compass is an eight week school resource to improve online ethical behaviour by taking young people through a series of practical activities and guided group discussions, all designed around common online experiences.

BIT's design of Digital Compass drew on a review of the behavioural science and moral psychology literature, collaboration and co-design with young people throughout all stages of the project and in field piloting. Based on the literature Digital Compass was designed to develop five core ethical capabilities:

1. Building self-efficacy (belief in one's own abilities) to resolve conflicts.
2. Making small but significant changes around online behaviours.
3. Forming and changing social norms.
4. Reflecting on personal values and actions.
5. Understanding how technology and our environment influence our actions.

To test whether Digital Compass could positively impact young people's ethical behaviour online, BIT ran a cluster randomised control trial involving 461 students aged 14-15 years across four participating schools in Australia.
Survey data was collected from online self-reporting, and we additionally conducted interviews and shareback sessions with students to understand their responses, their lived experiences with the programme, and their thoughts on its implementation.

Unfortunately due to the impacts of the pandemic, the trial was not able to be completed in full, but despite this enough quantitative and qualitative information was gathered to make a number of findings:

1. **Digital Compass increased the self-reported number and frequency of online prosocial behaviours, but this was not statistically significant.** This increase in prosocial behaviour was consistent with the theory of change for the project. The programme also appears to have had more of an influence on hard to do – but high impact and visible – prosocial behaviours such as standing up for friends

2. **Digital Compass increased the self-reported number and frequency of online antisocial behaviours.** When controlling for baseline measures, this was not statistically significant, but was nonetheless unexpected. BIT's hypothesis is that the programme increased awareness and therefore self-reporting of antisocial behaviour. Due to the proportionate increase in all antisocial behaviours and the positive lived experience feedback from young people, the team believe this to be the most accurate explanation.

3. **The lived experiences of young people using the program was positive.** Young people learned new skills to use online, liked being shown data about their peers' behaviours, and perceived the programme was practical, interactive, and different from what they do at school.

The project also highlighted a number of additional lessons that should be accounted for in future interventions with young people in school settings:

1. **There are difficult trade-offs between standardisation and local adaptation.** To compare effects across treatment groups and deliver a robust trial, this project used a standard programme and implementation protocol. However, the needs of individual schools and pupils varied and the programme may have been more effective if the delivery could have been more flexible.

2. **Who delivers the content really matters.** Implementation data collected during the trial showed variable impact by Facilitator. A high-quality external facilitator or teacher is critical to influence positive behaviour change.

3. **Sustained change requires ongoing behavioural scaffolding.** For an initiative like Digital Compass to work, it must be embedded and reinforced within the wider school curriculum and resources.

AMF is now working with schools in Australia to customise the content and delivery of Digital Compass for their context, and BIT is working with AMF to align the program with evidence and support ongoing evaluation.

Americas

Closing the gap in early education

Many barriers can affect whether a child gets to school regularly, on time and is fully engaged in and benefitting from their time in the classroom.

Poor transportation or competing priorities at home or at work for example can significantly cut attendance, while a lack of quality early learning materials at home or in the neighbourhood may negatively affect educational attainment.

In 2019, BIT teamed up with the What Works Cities Economic Mobility Initiative of Bloomberg Philanthropies and non-profit Results for America (RFA) to look at ways to enhance preschool attendance, engagement and enrollment in the city of Dayton. The initial stage of this project was successful in boosting engagement with remote learning by more than 50 per cent through personalised feedback interventions, and there was also promising evidence suggesting that similar feedback could improve in-person attendance rates.

Prior to the pandemic, one of the nine cities in this programme, Dayton, Ohio, struggled with differences in attendance rates based on race. In the 2018–2019 school year, while two-thirds of the city's white preschoolers met the ideal minimum attendance rate, only 62% of Black girls and just over half of Black boys had similarly high attendance rates. For the next phase of this partnership, BIT's initial priority was to help close this gap. But when the pandemic hit we pivoted and designed a system of interventions to address the myriad barriers to attainment.

By evaluating multiple interventions, we were able to help the city identify and invest in strategies that work. In particular, two SMS campaigns showed promising results for increasing attendance and engagement.

Before the pandemic, BIT's US team had designed and was testing an SMS campaign urging caregivers to bring their kids to preschool regularly. Two hundred and seventy parents participated in a randomised control trial (RCT) in which they received different types of messages. Parents in the treatment group were sent a personalised text every Wednesday and on special occasions (eg holidays or snow days) encouraging attendance. Personalised texts included the recipient's and student's names. They were also tailored with information about the child's recent attendance rate. The control group received monthly messages that encouraged preschool attendance generally.

Though this study had to be cut short due to the pandemic, a promising trend was apparent. Families in the treatment group had a higher proportion of students who met or surpassed the 90% attendance goal compared to those in the control group.

When preschools temporarily closed and educators moved to a remote learning format, encouraging in-person attendance was no longer an option. The city quickly responded by sending families with enrolled preschoolers free tablets with a subscription to ABC Mouse, an online education programme, plus monthly packages with interactive learning activities. To maximise the benefits of ABC Mouse, families were encouraged to use the programme for at least 45 minutes a week.

Building on insights from the SMS attendance campaign trial, the BIT team shifted the SMS campaign to increase families' engagement with ABC Mouse. Two new sets of behaviourally-informed text messages were developed: a standard one encouraging use of the programme, and a personalised one including information about individual usage from the previous week.

Between December 2020 and May 2021, 671 families participated in a RCT to determine which type of SMS was more effective. This found that families who received the personalised messages used ABC Mouse 50% more than the standard message recipients. This suggests that personalised messages are more effective, but unfortunately, neither group consistently hit the 45-minute per week goal.

BIT's partnership with Dayton was meaningful for many reasons. The city and its partners are committed to collecting the right data, bringing in expert collaborators, and developing a strong theory of change to make high-quality preschool accessible to all children.

You might also be interested in...

International Programmes

Training schools leaders in Guatemala

In 2018, BIT visited high schools across Guatemala in partnership with the Guatemalan Ministry of Education (MINEDUC) to try and understand why only 32% of high-school students pass the national standardised exam in reading comprehension and only 10% pass the exam in Maths.

In talking to principals, teachers and students, the team found**...see more**

View

Economy

Online shopping scams - fighting fire with fire

In 2021 BIT's French team were commissioned to work with the Direction Interministérielle de la Transformation Publique (DITP, France's modernisation department) and the Direction générale de la concurrence, de la consommation et de la répression des fraudes (DGCCRF, France's consumer and fraud authority), to test ways of reducing consumer vulnerability to online shopping fraud**...see more**

View