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Police in the classroom

Evaluation of a three-wave cluster-randomised controlled trial

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Executive summary

Can police officers build relationships and trust with students in schools? Using a clustered-block-randomised design and a three-wave panel with 13-15-year-old students from 81 schools across England and Wales, we test the impact of officers getting involved in school education, where they meet young people in their space, and present sessions designed to engage and encourage discussion.

The findings of this first-of-its-kind randomised controlled trial highlight one way to build positive relations between police and young people. Policing by consent underpins policing in the UK, and interactions with police officers are ‘teachable moments’ through which people learn about the law, its enforcement, and their own role and position within society. Positive contact helps to engender trust and legitimacy, and negative contact helps to damage people’s relationship with the law. Depending on the quantity and quality of people’s direct and indirect experiences with the law, teenagers and young adults can develop a healthy relationship with the law based on mutual understanding and respect, or an unhealthy relationship characterised by animosity and mistrust. The former has long been associated with more support for the law and legal compliance, while the latter has been shown to encourage cynicism, disobedience, and defiance.

This project tested one way to engineer positive contact between officers and young people. Police officers from several forces across the UK were trained to deliver a ‘Drugs and the law’ session in a Personal Social Health and Economic (PSHE) class at various schools. Officers encountered the students in the classroom on their ‘own turf’, reducing the power-differential between the police and the pupils. The lesson plan included three activities designed to encourage young people to consider the typical police deliberations on, and responses to, young people who appear to be using drugs. The activities were designed to start a discussion and explain how the police would treat young people who are suspected of using drugs; outline which laws and procedures the police would follow; encourage the pupils to consider the perspective of young people, the police, and the community; and give pupils a chance to ask questions and voice their concerns regarding police conduct. The emphasis of the lesson was on perspective taking, i.e. understanding the reasons for and procedures of the police. These activities were also designed with procedurally just principles in mind to help the officer communicate respect, transparency, and fairness and the respect of legal boundaries.

Participating schools were assigned to one of three groups: a control group, where no lesson took place, or one of two treatment groups, where the lesson was either taught by a teacher or a police officer. Schools with similar school-level characteristics (e.g. the size of the school and percentage of students eligible for free school meal allowance in the school) were randomly assigned to trios (i.e. blocks), each one to one of the three experimental conditions. Students first filled out a baseline questionnaire (two months before the teaching had taken place), a second survey right after the class on drugs and the police (or in case of the control group, around two months after the initial survey), and a third survey around two months after the lesson took place (or after the previous survey for the control group).

Using three different approaches to assess the impact of the intervention – (1) randomised controlled trial approach, (2) block-randomised trial approach, and (3) longitudinal approach – we found robust evidence that the police-led session significantly increased young people’s trust in police fairness and their knowledge of what ‘intent to supply’ meant compared to both the control and teacher conditions (the results for police legitimacy and willingness to cooperate with the police were mixed). Moreover, these effects remained significant even ten weeks after the intervention took place. These findings suggest that, at minimum, the police-led intervention increased the pupils’ trust in police fairness and helped them to learn some of the relevant material. Further analysis showed that the intervention had a very similar effect on average and was not augmented or mitigated by the personal characteristics, socioeconomic background, or previous police-related experiences of the participants. It is also worth noting that the perceptions of the procedural fairness of the lesson delivery were particularly positive in the police-led sessions both in the short and long run, likely providing evidence on why the intervention was so effective.

After the study has concluded, we sent out surveys to teachers and police officers to learn their views about participating in the research. Police officers had positive views about the training, the vast majority of them finding the training relevant, useful, and influential on how they will deliver inputs in the future. When prompted, their main complaint was not having a longer training so they could spend some more time on the new materials and concerns regarding continued support of the programme. Overall, both the teachers and the police officers were satisfied with the lesson plan. Both groups thought that the students enjoyed the lesson and were engaged throughout. There were minor differences between the emphasis of the learning outcomes, as slightly more teachers put a bigger emphasis on drugs and the law in the classes compared to police officers who were more invested in discussing the police perspective. Both teachers and police officers were overall satisfied with the lesson delivery. Police officers and teachers had largely similar views about how young people in the area they lived in might perceive the police. Based on the correlation with school-level views, police officers appeared to have a better insight into students' opinions of the police, compared to the teachers.

The intervention might have been successful for a number of different reasons, including (1) enthusiastic officers self-selecting to teach children; (2) officers receiving a well-designed training; (3) a lesson plan conveying messages of procedural justice and respect for boundaries; (4) the lesson being embedded in the PSHE curriculum, and (5) the encounters taking place on the pupils 'turf'. As always, there are some limitations to the study. These include the need to better understand the appropriate number of sessions for lasting effect (dosage), the appropriate age for maximum impact, the need to test the intervention in a more diverse set of schools, and finding the right topic(s) for young people.

Overall, our findings suggest that it is beneficial to have police officers (rather than teachers) give a lesson like 'Drugs and the law'. The intervention significantly improved attitudes towards the police both short term and long term and also helped students to learn new concepts. The effects of the intervention were similar regardless of the gender or ethnicity of the participant, the diversity in the area where the pupil lived at, or previous experiences with the police. Because the lesson plan sought to encourage perspective-taking and emphasise procedurally just policing, the fact that the teacher-led lessons were less successful in some respects may not be very surprising.

We are not recommending that police officers go into schools in an enforcement, surveillance or protective capacity. The focus here is on education and building confidence. Research into legal socialisation shows that people, as they grow up, learn about authority, rules, right, and responsibilities first from their parents, second from their teachers, and third from legal officials (such as the police). Police officers engaging with schools in this way may help foster the type of positive experiences that generate a mutual sense of trust and legitimacy. Rather than young people largely having interactions with police officers out in the street, where the officers are acting in a regulatory capacity, they would therefore have more humanised interactions in their early teenage years that can help foster a sense of trust between police and young people.

1. Introduction

In this report, we test the impact of police officers helping to deliver Personal, Social, Health, and Economic Education (PSHE) lessons in schools. We test whether having an officer in the classroom can be a teachable moment of legal socialisation among young people. Funded by National Police Chiefs' Council (NPCC), and in collaboration with the PSHE Association, the study assesses the causal effect (on young people's attitudes) of having a police officer giving a lesson on drugs and policing, compared to either a teacher delivering the same content, or there being no lesson at all. To estimate the causal effect at both the individual and aggregate level, we use a clustered-block-randomised design and a three-wave panel with 13-15-year-old students from dozens of schools across England and Wales.

Policing by consent underpins policing in the UK. The legal system relies on people to willingly comply with the law (not because they fear the consequences of non-compliance, but because they think it is the right thing to do) and cooperate with the police and courts (e.g. to give intelligence to officers and evidence in court). To maintain voluntary compliance and cooperation, it is important that police demonstrate to people that they are trustworthy and legitimate. Interactions with police officers are 'teachable moments', where individuals learn about the nature of society and its institution, as well as their role and position within society. Because 'good contact' helps to engender trust and legitimacy, and 'bad contact' helps to damage people's relationship with the law, it is important to get these encounters 'right.'

Getting police-citizen encounters 'right' may be especially important when young people are involved. As people grow up, they begin to encounter authority figures outside the family and school. These include legal actors, and from such encounters – whether they be direct personal experience or indirect vicarious experience – people draw lessons about the appropriate role of the legal system as a regulatory force within society, as well as what it means for the legal system to be legitimate. These lessons, alongside natural maturation and cognitive-emotional growth, help to form the foundation of adult expectations concerning (a) the way legal authorities are supposed to behave when interacting with citizens and (b) the ways citizens are supposed to behave in relation to the police and law.

Depending on the quantity and quality of people's direct and indirect experiences with the law, young people can develop a healthy relationship with the law based on mutual understanding and respect or an unhealthy relationship characterized by animosity and mistrust. The former has long been associated with more support for the law and legal compliance, while the latter has been shown to encourage cynicism, disobedience, and defiance. If children's experience during the legal socialisation process does not promote the development of a legitimacy-based model of legal authority, then as adults, people relate to law instrumentally in terms of costs and rewards.

In this report, each chapter begins with the main points of that chapter summarised in a few bullet points, so the reader could decide which part they want to read for more detailed discussion and analysis. After a brief theoretical overview, the research design and questionnaire development are discussed as important preliminary steps for setting up the research. The experimental results are set out in three chapters. The first one focuses on the short-term effects of the intervention, the second one on the impact of the intervention on certain subpopulations, and the final one on the long-term effects of treatment. The following chapter discusses the results of the survey which were sent to the participating police officers and teachers, so we could get their feedback about research process. We conclude the report with policy recommendations and thoughts on the future direction of research.

2. Theoretical overview

Short summary

- Prior research (mostly in North America) has focused on models of police in schools that are based on enforcement and protection. Yet, there are reasons to believe that a model based on procedural justice is preferable. One approach is to have police officer contribute to existing lesson plans, with the goal of generating mutual trust between police and young people.
- Legal socialisation research shows how young people learn about the law, police and their own rights and responsibilities. Encounters between police and young people are 'teachable moments' in which trust and legitimacy are won and lost, and it is important to 'engineer' positive encounters, particularly when they are on young people's 'own turf' (like the classroom).

In a recent evidence review, Bradford & Yesberg (2019) call for a model of police engagement in schools based on principles of procedural justice. Drawing on research into legal socialisation – i.e. the ways in which young people come to understand law within society, the institutions that create laws, and the people within those institutions that enforce the laws (Trinkner & Cohn, 2014; Tyler & Trinkner, 2017) – they argue that officers have the opportunity to win the trust of young people through engaging with young people 'on their own turf' (e.g. in school) in ways that they experience as respectful and fair. By explaining why policing and the law operates in the way it does, officers can engage in a way that helps to gain mutual understanding between police and young people.

Educators and legal scholars often distinguish between 'overt' and 'hidden' curricula (Meares 2017). When it comes to legal socialisation, overt curriculum entails what schools want to teach students about democratic citizenship. Schools in Western democracies want to train youths to become good and reliable citizens, hence, they convey messages of legal rights and protections of privacy, autonomy, and so on. In contrast, the hidden curriculum is embodied by how people are treated in interactions with the law and law enforcement. Unlike the overt curriculum, being exposed to this hidden curriculum tends to be unequal both in volume and quality. Some young people will have very limited to no contact with law enforcement while others will have regular encounters with them. Similarly, many young people will have positive experiences with the police and the law while others will have neutral or negative ones. As part of this project, and to remedy the inequalities in the hidden curriculum, a police encounter is incorporated into the overt curriculum.

One way to do this is through officers contributing to existing lesson plans. The current study was designed to do just that – to test the impact of officers contributing to the education of young people within schools by being in the classroom. Police officers followed a lesson plan, informed by procedural justice theory and work on legal socialisation, to see if this would increase the perception of young people of the trustworthiness and legitimacy of the police, their understanding of the law, and the aims of drugs policing, and so forth. The goal was to test whether this type of engagement, that is not about regulation, helps foster the type of positive experiences that generate a mutual sense of trust and legitimacy.

2.1 A model of policing based on procedural justice

Procedural justice theory is a popular framework for understanding police-citizen relations (Sunshine & Tyler, 2003; Tyler & Huo, 2002; Tyler, 2006). According to procedural justice theory, (a) police officers win legitimacy in the eyes of citizens when they wield their power in normatively appropriate ways, and (b) legitimacy motivates people to willingly cooperate with law enforcement and comply with the law (Bolger & Walters, 2019; Jackson, 2018; Pósch et al., 2020). People who see the legal system as legitimate voluntarily accept the law because they believe that they ought to defer to legal authorities. By tilting the authority-citizen relationship from coercive to consensual, legitimacy reduces the need for costly and minimally effective forms of crime-

control, opening up further space for policing strategies that prioritise consent over coercion (President's Task Force on 21st Century Policing, 2015; Tyler et al., 2015).

Legitimacy has two dimensions: (1) the belief that the police is an appropriate, moral and just institution, and (2) the responsibility and obligation to comply with police that flows from that belief (Jackson et al., 2012, 2013). When people see the police as legitimate, they feel a responsibility and obligation to obey officers because it is the right thing to do, not because they fear punishment or feel powerless to do otherwise (Tyler and Jackson 2013; Pósch et al., 2020). This is important because it is difficult and costly to exert influence over citizens based solely upon the possession and use of power. An increasingly narrow reliance on violent force is likely to follow if the public is unwilling to cooperate with their goals, comply with their orders, and accept their decisions (Tyler, 2011).

How do legal institutions persuade people that they are legitimate? The concept of procedural justice is key, which incorporates four components: (1) voice, (2) neutrality, (3) treatment with respect and dignity, and (4) trustworthy motives:

- 1) **Voice** means police officers providing opportunities for the members of the public that they are in contact with to participate in decision-making processes. This means, for instance, allowing people to give their side of the story.
- 2) **Neutrality** is about making decisions based on proper procedure rather than personal opinions or prejudices. By acting based on rules and by applying those rules evenly across people and time, authorities are viewed as acting fairly.
- 3) **Treatment with respect and dignity** is about acknowledging people's rights and acting with courtesy. When people feel demeaned or subjected to negative stereotypes, they view themselves as diminished and disrespected beyond what is appropriate when dealing with the law.
- 4) **Trustworthy motives** are conveyed when people feel that authorities are acting out of a sincere desire to do what is right and are concerned about their well-being.

There is a good deal of evidence that acting in procedurally just ways – i.e. treating people with dignity and respect, behaving in neutral, unbiased ways, showing trustworthy motives and a willingness to help citizens, and allowing citizens voice and agency in interactions – helps to generate the popular belief that the institution is legitimate (Jackson, 2018). Importantly, the effectiveness of the police and whether police allocate outcomes (such as arrests, citations, protection and service) and finite resources fairly across social groups in society (i.e. distributive justice) seem to be less important to the generation and maintenance of legitimacy than following principles of procedural justice.

Why does procedural justice matter? First, fair process is a socially-shared norm determining how power should be exercised – officers *should* be treating people with respect and dignity; they *should* be giving people a sense of voice and inclusion in the decision-making process; they *should* be acting impartially; and they *should* be conveying genuine trustworthy motives. These are norms that determine how legal authorities *should* wield their authority, and when police officers are seen to respect those norms, this generates institutional normativity among the general populace. The belief that the police act in ways that align with societal standards then strengthens the corresponding belief among citizens that they, too, should act appropriately: *If they act properly, I'll act properly* (Jackson et al., 2012, 2013).

Second, procedural justice helps build solidarity and bonds within social groups. When authority figures wield power in ways that accord with principles of fair process, this sends signals of value, status and inclusion to individuals (Lind & Tyler, 1988; Tyler & Blader, 2003a, 2003b) within the social categories the police are

thought to represent (categories that are usually conceptualised and operationalised in terms of national, community or citizenship identities, e.g. Bradford, 2014; Jackson & Pósch, 2019). As Trinkner (2019: 4) notes:

‘...one of the primary ways in which the police are legitimate is through the use of fair procedures – i.e. procedural justice...procedural justice is such a vital part of authority interactions because it communicates to individuals that they are valued part of the group the authority represents. In other words, it is a signalling device used by authorities to confer group status and membership onto individuals.’

2.2 Respecting the limits of one’s rightful authority

There is another source of police legitimacy, in addition to procedural justice (Huq et al., 2017; Trinkner et al., 2018). People are sensitive to the power position of legal authorities; they look for signs that power is being exercised appropriately in their eyes; and to the extent that this is the case, they are more willing to accept even negative outcomes during encounters with law enforcement (McCluskey, 2003). Procedural justice focuses on “how” police exert their authority, indeed one could read the procedural justice literature and come to the conclusion that anything the police do is appropriate and legitimate, so long as it is done respectfully and impartially (Epp et al., 2014; Harkin, 2015).

Yet, people’s understanding of the appropriate use of legal power is not only concerned with “how” legal authorities behave when exercising power, but also “what” power is being exercised “when” and “where” (Tyler & Trinkner, 2017). These latter concerns are a reflection of legal values concerning the rightful boundaries of authority. Like treatment and decision-making concerns, the bounded authority of police action is tied to the overall quality of the interaction itself. But unlike these concerns, it represents broader questions that centre on whether the police have the right to be in a particular space in the first place. People value their agency to behave free of regulation or surveillance in their personal lives. They understand that in some instances they will have to agree to sublimate that personal autonomy so that law can maintain social order; but they still expect the law and law enforcement officials to recognise their agency to some degree.

In other words, those subject to the power of the police desire that power to be exercised within certain boundaries and limits (Huq et al., 2017; Trinkner et al., 2018). There are places and situations where they wish police not to intrude, for example, and tools and tactics they think to be inappropriate (like the over-use of aggressive stop-and-frisk tactics in certain minority communities). When these boundaries are transgressed, people question the legitimacy of the police in ways that transcend concerns over procedural and distributive fairness.

2.3 Legal socialisation: The process by which people develop their relationship with the law

At the heart of the design and practice of legal institutions is the relationship between the law and the public (Justice & Meares, 2014). People’s understanding of the justice system and the position and role of law in society is formed through the process of legal socialisation – a subset of broader socialisation pressures that guide how young people and adults understand the social world. Over time, people acquire their beliefs about how the law wields power and asserts its authority, their expectations concerning the appropriate behaviour of legal authorities, and their notions about the rights and responsibilities of citizens in relation to the law (Tyler & Trinkner, 2018).

Research into legal socialisation looks at how childhood development and experiences with legal and non-legal authorities shape later beliefs about the law and legal system (Cohn et al., 2012; Fine & Cauffman, 2015; Trinkner & Cohn, 2014). As people grow up, they begin to encounter authority figures outside the family and school (particularly legal actors). From these encounters (whether direct personal experience or indirect vicarious experience) they draw lessons that help shape their beliefs and expectations concerning the

appropriate role of the legal system as a regulatory force within society, as well as what it means for the legal system to be legitimate. These lessons, alongside natural maturation and cognitive-emotional growth, help to form the foundation of adult expectations concerning (a) the way legal authorities are supposed to behave when interacting with citizens and (b) the ways citizens are supposed to behave in relation to the police and law (Tyler & Trinkner, 2018).

It is through childhood and adolescence that people learn a framework for orienting themselves toward authority in ways that are instrumental-based or legitimacy-based. The acquisition of an orientation toward authority (that may be coercive or based upon legitimacy) is the initial path in the development of an adult orientation toward the law and legal authority. Depending on the quantity and quality of people's direct and indirect experiences with the law, young people can develop a healthy relationship with the law based on mutual understanding and respect or an unhealthy relationship characterized by animosity and mistrust (Tyler & Trinkner, 2018). The former has long been associated with more support for the law and legal compliance (Tyler & Huo, 2002). The latter has been shown to encourage cynicism, disobedience, and defiance (Nivette et al., 2015). If children's experience during the legal socialisation process does not promote the development of a legitimacy-based model of legal authority, then as adults, people relate to law instrumentally in terms of costs and rewards.

A central element of the legal socialisation process involves the internalisation of law-related values that create expectations about the appropriate ways for legal agents to utilise their authority (Tyler & Trinkner, 2018). Tyler and Trinkner (2018; see also Trinkner & Tyler, 2016) argue there are three values that dictate how legal officials, such as the police, *should* behave. While these three values are interrelated, each taps into a distinct issue about how they believe legal authority should interact with the public.

- The first value (fair interpersonal treatment) concerns how individuals expect to be treated by the legal system. Membership in a community carries with it entitlement about the quality of treatment by public figures. Individuals expect and demand to be treated in accordance with these entitlements by the officers that serve the community (Tyler, 2006). Concerns of appropriate treatment encompass the protection of the law, but they also include how police officers interact with citizens at an interpersonal level.
- The second value (fair decision-making) concerns how legal authorities should make decisions when interacting with the public. The police hold immense power over the communities they serve and how they use that power to make decisions during the implementation and enforcement of rules is largely at their discretion. Despite this, the public has standards about how police officers are supposed to make decisions and expect that police officers will maintain these standards.
- The third value (respecting the limits of one's rightful authority) concerns the boundaries of the power that legal authorities possess. People demarcate their lives into different domains and within each of these domains they place limits on whether and to what degree authorities have the right to regulate their behaviour. Agents are not given absolute authority to utilise their power over any situation or behaviour however they see fit (Trinkner & Tyler, 2016; Tyler & Trinkner, 2018; Trinkner et al., 2018). Instead, people recognise limits on their power and expect police officers to behave in accordance with this bounded authority, in ways that transcend the fairness of interpersonal treatment and the fairness of decision-making.

Once these values are internalised – i.e. once individuals come to believe that officers should be fair in terms of interpersonal treatment, fair in terms of decision-making, and fair in terms of respecting the limits of their rightful authority – people judge the legitimacy of legal institutions largely on these three bases.

Encounters with police officers are 'teachable moments'; they signal status, values, norms, and obligations of both citizens and legal authorities (Justice and Meares 2014; Tyler, Fagan, and Geller 2014). To the extent

that police officers treat young people fairly and are seen to respect the limits of their rightful authority, they communicate that the values embedded in the law are appropriate, and that legal authorities enforce the law in a similarly appropriate, i.e. just, manner. Importantly, young people have been found to be more sensitive to cues of procedural justice than adults (Murphy 2015), probably because their social identity formation is still ongoing. Bradford's (2014) study of young ethnic minority Londoners, for example, implied that procedural justice was more important to those with multiple citizenships (i.e. more uncertain social identities in relation to the group represented by the British police) than their more uni-dimensionally British counterparts. And because the impact of procedural justice wanes over time, indicating that early encounters are more important than later ones (McLean et al., 2019), the early experiences of young people may be fundamental in 'setting' their views of the police and the legal system.

3. Research design

Short summary

- Each school was assigned to one of three experimental conditions: (1) control, where students did not have a class on the police and drugs, (2) teacher, where the class was delivered by a teacher, and (3) police, where the class was delivered by a police officer who received a training on the content of the class and the principles of teaching. Schools with similar school-level characteristics (e.g. the size of the school and percentage of students eligible for free school meal allowance in the school) were randomly assigned to trios (i.e. blocks), each one to a one of the three experimental conditions.
- The topic of the class and the activities were designed to signal procedural justice and the respect of legal boundaries to the pupils. The police officer encountered them on their 'own turf'; explained how the police would treat young people who are suspected of using drugs and which laws and procedures they would follow; encouraged the pupils to consider the perspective of young people, the police, and the community; and gave them a chance to ask questions and voice their concerns regarding police conduct.
- This was a three-wave study, with a pre-intervention baseline survey (wave 1), a survey taken after the intervention or two months after the first one in case of the control condition (wave 2), and a survey taken two months following the intervention (post-intervention) or the wave 2 survey in case of the control condition (wave 3). Each participant was given an anonymised and unique ID which they were asked to remember and use in future waves.

Increasing confidence in the police and teaching students about the drugs and the police is a difficult task. Sending police officers into schools without any training is unlikely to be effective, as most officers find the classroom dynamic unfamiliar and hence, difficult to navigate. With the teaching experts from the PSHE Association, we designed a lesson plan that was aimed to communicate procedurally just messages and police respect of boundaries. We hoped that this intervention could have a positive impact on confidence in the police while also supporting student learning.

Even a well-implemented lesson plan requires thorough evaluation. We used a block-randomised three-wave longitudinal survey design with three experimental conditions to assess the effectiveness of the intervention. The three experimental conditions were introduced on the school-level. Each school was assigned to either (a) the control condition, where no intervention took place, (b) the teacher condition, where the lesson was delivered by a teacher, and (c) the police condition, where the lesson was delivered by a police officer. These three conditions helped us differentiate between the natural, uninterrupted change in student attitudes at this age (control condition), the effect of the content of the lesson (which was the same for the teachers and the police), and the presence of a police officer (police condition). To track changes over time, participating schools were asked to distribute three surveys: a baseline pre-treatment survey (Wave 1), an intervention survey (Wave 2), and a post-intervention (Wave 3) survey.

The goal of our research design was to determine whether having a trained police officer give the lesson would (a) increase young people's receptiveness to the content of the lesson and (b) change their attitudes towards the police and the law. To assess this, we recruited schools from several areas across England. Due to the onset of the coronavirus pandemic, we only managed to complete all three waves in two regions: Sussex and West-Midlands, although a handful of schools from other regions were also included in the evaluation.

3.1 Intervention plan

As discussed in the literature review, police officers have been present in classrooms and schools for decades, usually without receiving any proper training in teaching. Although teachers and police officers are both authority figures, teachers are trained in interacting with pupils, giving them voice, managing a classroom, delivering teaching materials, and so on. To equip the police with the necessary (if basic) set of teaching skills, so they could effectively and effortlessly interact with young people in the classroom, officers from several forces across the UK were trained to deliver a 'law and drugs' session in a PSHE class. Each police training took two days and was led by both a police officer and a PSHE teacher to bring together different perspectives. The training was interactive, with frontal delivery of some materials followed by group discussions and other exercises.

The first day focused on introducing officers to the aims of PSHE education. As the first task, officers were invited to consider why students, schools, and the police could benefit from having police officers in PSHE classes. Most topics focused on the relationship between police officers and young people, such as the boundaries between police officers and teenagers and how to overcome them; how to carry out stop and search following procedurally just principles; how to interact with schools and what are the sources of potential miscommunication, etc. In the afternoon, the focus of the training shifted to understanding roles and goals of teaching and learning and how to create a safe learning environment in the classroom. As part of this, officers were invited to take part in a short role-playing exercise, where the training holders acted as young people with bold questions (e.g. 'are all police officers racist?'; 'have you ever had drugs yourself?'). Both the role-playing session to question and the officer's response were discussed, and the trainers recommended ways of handling similar queries. The day ended with a discussion of the learning objectives and learning outcomes of a lesson.

The second day of the training was centred on teaching skills, including how to check learning and how to use a lesson plan, and an open discussion of a video of a PSHE class exercise. However, the main event of the second day came in the afternoon, when police officers were asked to try to deliver part of a PSHE lesson and receive feedback from the other participants and the trainers on how to improve their teaching.

The lesson plan for the intervention session included three activities, each designed to encourage young people to consider the typical police deliberations on and responses to young people who appear to use drugs. The first warm-up activity in the lesson included an 'overheard conversation' where two young people discussed 'dealing' to friends without getting payment from them. The participants were encouraged to discuss what this 'dealing' might mean, and what could be the consequences of engaging in this behaviour. As part of the second activity, students were given a picture where young people in a park were drinking and smoking (likely cannabis). In teams of two, students were asked to discuss how the police, the kids, or the community might feel about this situation. After the one-to-one discussion between the students, all of them were asked to openly discuss the different perspectives. Finally, the third activity focused on the appropriate police behaviour in case a police officer would catch students using drugs. Here, students in small groups were asked to create a diamond shape with most likely police responses on top and the least likely responses on the bottom of the shape. After creating this diamond shape, the different groups were asked to engage in open discussion on why they created the shape as they did. Teachers and officers were asked to moderate each activity and lead the discussions by bringing in the police perspective.

For a behavioural intervention to be effective, it needs to distil the messages that need to be delivered to the participants. Our goal was to design a lesson plan which will be easy to execute and in which police officers could engage in and act naturally. Police officers encountered students on their 'own turf', in the classroom, thus decreasing the power-differential between them and the students. Finally, the activities gave the students voice and gave them the chance to engage in a discussion with the officer. Thus, the emphasis of the lesson was on perspective taking, i.e. understanding the reasons for and procedures of the police. These activities

were designed with procedurally just principles in mind to help the officer communicate respect, transparency, and fairness, and respect for legal boundaries.

Teachers had been provided with the lesson plan and the necessary materials. Most teachers were experienced, and have had experience with getting new lesson plans this way. They had a direct line of contact to people in PSHE who responded to all their questions about the lesson.

3.2 Experimental design

Because there was only a limited pool of schools, randomly assigning each school to one of the three conditions is not advisable, as it is likely that some imbalances would remain, making the schools assigned to different conditions on average different from each other on observable characteristics (due to chance randomisation). To remedy this potential imbalance, in each region, schools were block-randomised. Block-randomisation means that schools were matched to each other on a set of observable characteristics, including the student makeup of the school and the school's geographic location. The following seven variables were used for block matching the schools:

- Gender makeup (girls only, boys only, mixed)
- School capacity (number of pupils)
- Percentage of free school meal recipients
- Availability of special classes
- Ofsted rating
- Level of urbanisation (urban city/town, rural town, rural village)
- The county the school belongs to

Table 1: Block-randomisation of volunteering schools from Sussex

Variables used for block randomisation	Control	Teacher	Police	Total/average
Local Authority				
Brighton and Hove	4	4	3	11
East Sussex	8	9	7	24
West Sussex	13	12	13	38
Level of urbanisation				
Rural hamlet or village	2	2	2	6
Rural town and fringe	3	4	3	10
Urban city and town	20	19	18	57
Gender				
Boys	0	1	1	2
Girls	0	1	1	2
Mixed	25	23	21	69
Ofsted Rating				
Requires improvement	2	4	1	7
Good	18	14	19	51
Outstanding	3	4	2	9

Special classes				
Has Special Classes	4	4	3	11
No Special Classes	16	15	15	46
Not Applicable	5	6	5	16
Free School Lunch				
%	10.93%	10.74%	12.35%	11.33%
School capacity				
number of pupils	1261.88	1135.08	1207.87	1201.44
Overall number of schools				
Number	25	25	23	73

We downloaded the dataset containing these variables from a gov.uk maintained online database. For each region, information on every school was downloaded, and the volunteering schools were selected from the full list. To address the missing values in this dataset, we used multiple imputation with chained equations and five replacements. As the next step, each set of variables was randomised 100,000 times and assigned to one of the three experimental conditions. The model averaging was done after five full runs (thus, considering the imputed data). As a final step, propensity scores were derived for each participating school and matched trios of schools were created, with one control, one teacher, and one police school in each. As a result of this randomisation, across the three experimental conditions and in each block, the schools had on average the same characteristics. In short, the goal of this exercise was (1) to make sure that the schools assigned to the three experimental conditions are by-and-large similar across all observable characteristics, and (2) to create school-trios that are the same on all observable (and hopefully unobservable) variables on the school-level, and they only differ in terms of the experimental condition they were assigned to.

As a demonstration of block-randomisation, Table 1 shows the results for the Sussex school region. On average, each treatment condition was the same across all variables of interest. Slight imbalances (such as with the Ofsted-ratings) were the product of the limited sample size but do not amount to statistically significant differences.

Even in schools with on average similar characteristics, classes and students in those classes were different from each other. This is expected in cluster-randomised trial, where the treatment is assigned on the cluster (in our case: school) level. These differences, however, were crucial, as we expected that the lessons would have a varying impact on students and classes depending on their initial attitudes regarding the police. The baseline surveys help to remedy this issue allowing the individual variability to be quantified before anyone had been exposed to the treatment. Including a baseline permitted the assessment of the changes in attitudes after the intervention compared to pre-treatment opinions.

Another key element of the research design was the longitudinal three-wave structure. Wave 1 consisted of the pre-treatment, baseline. Wave 2 gathered data about the intervention, and it took place right after the teacher- or police-led lesson, or around two months after the baseline in case of the control condition. Finally, Wave 3 was a post-intervention survey, taking place around two months after Wave 2. After filling out the survey, each student was sent a random ID to an email address they provided. These email addresses could not be matched to the random IDs, thus preserving the anonymity of the students. We used the random IDs to track how each student's opinions changed over time, providing us with insight into changes in individual opinions instead of changes in aggregate, class- and school-level estimates.

At each wave, participants were asked to fill out a survey. All surveys were conducted online and were hosted by Qualtrics. In each block of questions, the order of the items was randomised to mitigate the potential effects

of primacy and recency on the responses. We placed two attention checks in the questionnaires to identify students who were not paying attention.

At Wave 1, we sent out a longer survey where alongside the core questionnaire, it included demographic questions that were unlikely to change over time, such as age, gender, ethnicity, school class, disadvantage, etc. In addition, the baseline questionnaire contained some general school- and teacher-related questions, which could inform future analysis by providing further insight into student perception of the respective schools. Finally, again, for the first wave only, a set of filter questions were added to separate the core questions from the Wave 1-only questions, hence reducing the potential influence of the additional questions on the core questionnaire.

Wave 2 and Wave 3 mainly included the core questionnaire, which measured the participants' perception of the procedural justice of the police, police legitimacy, willingness to cooperate, and so on. For the teacher and police conditions only, as a manipulation check, we added a few questions about student perception of the procedural and distributive justice of the lesson delivery.

The Wave 1 survey took on average 15-20 minutes to complete and the Wave 2 and Wave 3 surveys 10-15 minutes. Details of how the questionnaire was developed and tested can be found in the Questionnaire design chapter.

3.3 Sampling schools

Police forces that participated in the training could volunteer to take part in the research. Seven police forces decided to join the study across England. In these police force areas, schools with PSHE education were recruited to take part in the study between September 2019 and March 2020. Due to the onset of the coronavirus pandemic, only two police force areas, Sussex and West-Midlands (where the fieldwork started the earliest, in October) had sufficient time to participate in all three waves of the study. The other force areas included in the study were Avon and Somerset, Cheshire, London (Metropolitan Police), Northumbria, Staffordshire, and Thames Valley. We will refer to these areas as 'Others', as only a handful of schools took part in more than the baseline survey.

Table 2 provides a summary of all schools that participated in at least two waves of the study. In addition to the schools shown in Table 2, five schools from Sussex, thirteen from West-Midlands, and twelve from other areas took part in the Wave 1 (baseline) survey only.

We experienced significant attrition in the study in two ways: (1) schools that signed up for the study but did not end up participating and (2) schools that left the study after the baseline. Taking the example of Sussex: from 48 schools that signed up for the study 33 ended up participating (31% attrition). From these 33 schools, seven left the study after Wave 1 (21% wave-on-wave attrition), and from the remaining 26, only 16 returned for Wave 3 (38% wave-on-wave attrition). For Sussex and West-Midlands, we assessed whether school characteristics played a role in this attrition and found no evidence for it – on average, schools with similar characteristics decided to stay in or leave the study. Moreover, schools which signed up to participate in the study were not significantly different compared to other schools that decided to stay away. Therefore, at least on the school-level, we did not find any sign of self-selection into signing up and continuously participating in the study for Sussex and West-Midlands.

Table 2: Schools that took part in at least two waves

	Experimental condition	Baseline (Wave 1)	Intervention (Wave 2)	Post-intervention (Wave 3)
Sussex	Control	12	8	7
	Teacher	6	8	3
	Police	10	10	6
West-Midlands	Control	5	6	5
	Teacher	5	6	2
	Police	4	4	0
Other regions	Control	4	4	2
	Teacher	0	0	0
	Police	3	2	1
Sum		49	48	26

Unfortunately, due to the onset of the pandemic, in other regions the data collection got disrupted and only seven schools ended up participating in more than one wave. It follows that we could not establish balance on the school-level for these schools and that none of the matched school-trios made it intact to the data collection. Further details on what this meant for the data analysis can be found in the ‘Assessment of the Intervention’ chapter.

3.4 Discussion

Successful interventions must be well-considered and easy to execute across various contexts, so they could be transferred and modified to fit the individual circumstances of the people who deliver them. We believe that the training and lesson plan outlined above possessed these characteristics making it relatively effortless for teachers and police officers to deliver the lessons in schools with widely different characteristics.

We used a complex research design to make robust inferences from the data gathered. The block-randomisation and the creation of matched school trios aimed to create a balanced sample of schools where institutions with similar characteristics could be compared to each other. The pre-intervention (baseline) survey allowed us to establish the initial views of participating students. The intervention survey assessed the short-term effect of the lesson, whilst the post-intervention survey gauged the long-term impact. Finally, by assigning random IDs to each respondent, we could track how individual opinions changed over time.

Due to the coronavirus pandemic, our research had been disrupted. Nevertheless, we had two regions where all three waves could be completed without much interference: Sussex and West-Midlands. Schools from these two regions were largely similar to other schools that did not take part in the intervention, promising a generalisability of the estimates. Only a handful of schools from other regions took part in the intervention, which were also added to subsequent analysis.

4. Questionnaire design and question testing

Short summary

- As there have been no surveys which have been validated in the UK, we had to design a new questionnaire for young people on the perception of the police and the law.
- We used three complementary methods to test the new questionnaire. We started with focus group-driven cognitive interviews to get direct feedback from members of our target population on the questionnaire. Then we used online probing to gather further insight on question comprehension from a bigger sample. Finally, we tested the internal consistency and construct validity of the new scales.
- This chapter demonstrates the process of this questionnaire development by focusing on one item from the scale for procedural justice.

As there has been limited number of empirical studies on young people and the perception of the police, most of them conducted in the United States, we had to start at the drawing board when designing the surveys. We followed an iterative three-step process when evaluating the questionnaire, modifying the questions at each step if needed to assure question clarity and comprehension by the pupils. First, we carried out focus group-driven cognitive interviews with young people. Second, we assessed the questions using online probing, which matched our mode of data collection. Finally, we analysed the collected empirical data for internal consistency and construct validity to test whether the individual items in each scale belong to the same underlying construct of interest. All questions adopted for further analysis had been assessed using this procedure, which we will discuss in detail below.

4.1 Focus group-driven cognitive interviews

We designed our draft questionnaire by modifying existing adult surveys. We brought the first versions of our questionnaire to three focus groups of young people who were of similar age to our target population. Each focus group took place at a different location, one in East London, one in a city in Sussex, and the final in a town in Sussex. These focus groups differed in their ethnic makeup, age, and gender mix (see Table 3).

Table 3: Characteristics of focus group participants

Focus groups	
First group	Town in Sussex, participants were from that and another nearby town <ul style="list-style-type: none"> ▪ Gender: 3 girls, 8 boys ▪ Ethnicity: all white ▪ Age: Mean=16.27, Median=16, SD=1.27
Second group	East London, participants were from the area, most of them from disadvantaged background <ul style="list-style-type: none"> ▪ Gender: 6 girls, 3 boys ▪ Ethnicity: 1 white, 1 mixed, 7 black ▪ Age: Mean=13.67, Median=13, SD=1.87
Third group	City in Sussex, participants were from the city <ul style="list-style-type: none"> ▪ Gender: 5 girls, 7 boys ▪ Ethnicity: all white ▪ Age: Mean=15.67, Median=16, SD=0.888

Table 4: Example of cognitive interview questions, focus group notes on each question, and how questions changed based on the feedback

An example of question testing with cognitive interviews	
Prompt and item	Based on what you have heard or your own experience, how often would you say the police in your neighbourhood... ...explain their decisions and actions when asked to do so
Cognitive interview questions	Question 3 'How did you go about answering this question?' <ul style="list-style-type: none"> ▪ What did you understand by “explain decisions and actions”? ▪ What did you understand by “when asked to do so”? What sort of situations were you thinking about? ▪ Was this an easy or difficult question to understand? ▪ Was this an easy or difficult question to answer? What did you mean by your answer?
First group	They found this one difficult because they have never had this experience. At the same time, they recognised the importance of this: ‘you need to explain everything if you are an officer’.
Second group	This was a bit more difficult than the other two questions in the block. They were considering a situation when the police stopped and searched someone, but based on their experience, the police usually don't explain why. The 'ask to do so' part of the question was a bit difficult to parse for some.
Third group	They didn't understand this well (e.g. 'I just didn't understand the question.', and 'I found it difficult to understand.'). They flagged the 'when asked to do so' part which makes this more complex than needs to be ('difficult to understand'). They suggest 'losing' the 'when asked to do so' part.
Modified item	...explain their decisions and actions

Each focus group lasted around two hours with a 20-minute break after the first 50 minutes so the respondents could have some food and stretch their legs. We started each focus group session with introductions and by explaining the participants the goal of the research highlighting that we and our questionnaire are being tested not them. We asked the participants for some basic demographic information and for their permission so we could tape an audio recording of the event. Then we explained the pupils the task and asked them to form groups of two or three encouraging them to alternate the role of the interviewer and interviewee during the cognitive interview process.

For each block of questions, we distributed a printout of the survey with some additional questions at the bottom for the interviewer. After reaching the end of a block of questions, we first inquired about which questions they found difficult, encouraging them to start an open discussion about the potential issues they identified with the survey. We also asked them to recommend modifications and alternatives which could help replace the problematic item. We also asked every pair and trio of participants to name a single item from each block that they found most difficult. If a new question was suggested that had not been mentioned earlier, we discussed that as well, then we moved on to the next block of questions. Based on the feedback we gathered, we modified the survey sometimes between two focus groups, other times after the last focus group. Table 4 exemplifies our process on one item of the procedural justice scale which was modified as the result of the cognitive interviews.

4.2 Online probing

We used online probing to further test our questionnaire. With the help of PSHE, we sent out the surveys to schools that otherwise did not take part in the study. This way we recruited two schools from Birmingham and four schools from London. These schools were areas of varying affluence with different levels of ethnic diversity. We received 309 valid responses, from which 84 came from Birmingham (26%) and the rest from London. 68% of respondents identified as female, 6.6% as non-binary, and the remaining participants as male. The average age of respondents was 13.5 with the median age of 13. Only 40% of the sample was white, 15% were from Mixed, 10% from African, 9% from Bangladeshi background, with the remaining respondents from other ethnicities (26%). 29% of the sample were born outside of the UK.

The survey used a planned missing data design which meant that each respondent received a single question from each block at random. This method was used to reduce the time needed to finish each survey but still provide sufficient insight into each construct of interest. As normal with online probing, at the beginning of the survey participants were asked to be critical, point out potential mistakes and sources of misunderstandings in the survey, and admit if they found it difficult to answer and understand certain questions. For each question, first participants were asked to answer the question as they would in case of filling out a regular survey. Following this, respondents were asked to indicate how easy or difficult it had been to answer and understand the previous question on a 1-5 scale (Very difficult – Very easy). Then, they had to put into their own words what they understood by the question that was asked of them (comprehension probe). Finally, they were also asked to detail the situation that came to mind when they first read the question (specific probe).

Table 5: Example responses from the online probing for the ‘...explain their decisions and actions’ item from the procedural justice scale

	Numeric response to the item	Perceived difficulty of the question	Interpretation of the question content	Situation that came to mind
Examples of comprehension	1 (Almost never)	5 (Very easy)	i understand that explain their decision means why they do it	gang violence and knife crimes
	2 (Rarely)	3 (Neither difficult, nor easy)	when someone has to justify there own actions	i haven't had any interactions with police in my neighborhood
	3 (Sometimes)	2 (Somewhat difficult)	By explaining why they either arrested you or why they are giving you a fine.	i havent really had any interactions with the police but i know some people who have seen the police explain why so id say often as thats wht i understood.
	4 (Often)	5 (Very easy)	Making it clear to the rest of the students afterwards why they had to do what they did	Outside of school when police occasionally have to stop students from being irresponsible
	5 (Almost all the time)	5 (Very easy)	explain what they are doing and why they are doing it.	i don't know

Examples of difficulties	2 (Rarely)	3 (Neither easy, nor difficult)	i dont know	i have not had any interactions with the police therefore this question does not apply to me.
	3 (Sometimes)	3 (Neither easy, nor difficult)	i am really not sure	When a stabbing happened outside my house and everyone was crowding.

To continue with the example from the earlier section, we considered the performance of the ‘...explain their decisions and actions when asked to do so’ item. Compared to the other two items in the scale (‘...treat young people with respect’: mean=4.36, standard deviation=1.17; ‘...explain their decisions and actions’: mean=4.27, standard deviation=0.99), based on the average responses to the difficulty question in the probe, students still found this the most difficult one (mean=3.; 66standard deviation=1.26). Nevertheless, the average and the follow-up probes indicated that the vast majority of students understood this question. In their written responses, only 10% of the participants indicated that they did not understand what the question meant or how to answer it and as a response to the closed-ended question about question difficulty, less than 10% of the sample judged this question ‘very difficult’. The level of understanding remained similar across the participants regardless of the initial response given to the question, indicating that the potential difficulties when answering the question were unlikely to lead to systematic bias in the responses in either direction. From all questions included in subsequent analysis, this third item of the procedural justice scale performed worst, standing out as a comparatively negative but still acceptable example.

4.3 Internal consistency and construct validity

We carried out various statistical tests to evaluate the internal consistency and measurement models of three scales. These three scales were procedural justice, police legitimacy, and willingness to cooperate with the police, each of which made up of three individual items. We analysed all schools that took part in Wave 1 (baseline), thus considering responses from 8,197 students from 79 schools.

Measures of internal consistency range from 0-1 with higher numbers indicating better consistency. These are also often referred to as reliability measures, suggesting that the individual items in each scale are tested whether they reliably tap into the same underlying construct. We used Cronbach’s Alpha and MacDonald’s Omega to measure the internal consistency of each scale. Both of these measures were fairly strong with values close to or above 0.7 (Cronbach Alpha=0.72-0.81; MacDonald’s Omega=0.69-0.77, Table 6).

Table 6: Internal consistency measures, factor loadings, model fit estimates for a confirmatory factor analysis, and correlation coefficients for the variables analysed in the report

	Cronbach's Alpha	MacDonald's Omega	Factor loadings	Model fit	Correlation	
					Police legitimacy	Willingness to cooperate
Procedural justice	0.72	0.69	0.57-0.75	Chi2=25223.366, p<0.001; CFI=0.996; TLI=0.994; RMSEA=0.022; RMSEA 90%=[0.018, 0.026]; SRMR=0.013	r=0.70, p<0.001	r=0.44, p<0.001
Police legitimacy	0.81	0.74	0.68-0.79			r=0.57, p<0.001
Willingness to cooperate	0.80	0.77	0.67-0.81			

To check whether our measurement model fits the underlying data well, we fitted a confirmatory factor analysis. Factor loadings range -1-1 with higher numbers implying a stronger relationship with the underlying variable to which each individual question belongs to. Police legitimacy and willingness to cooperate with the police had slightly higher factor loadings compared to procedural justice (Table 6). The overall fit of the confirmatory factor analysis model implied that the measurement models of procedural justice, police legitimacy, and willingness to cooperate fit the data well.

To check construct validity, we looked at the correlation coefficients between the three constructs. Correlation coefficients also have a range of -1-1, with higher values indicating stronger association between the variables. Based on the extant literature, one would expect that procedural justice has a strong positive association with police legitimacy, and also that police legitimacy has a stronger association with willingness to cooperate with the police compared to procedural justice. As shown in Table 6, the correlations were in line with these expectations. We ran further analysis to confirm the construct validity of the variables in our analysis, which also appeared to confirm our hypotheses.

Finally, we fitted multilevel measurement models assuming that the individual responses of the participants might be nested in each of the 79 schools. The results from this analysis indicated high levels of consistency without sizable variation in responses across the schools, which means that the measurement models are likely to be similar across the various schools.

4.4 Discussion

Developing a questionnaire that is easily understood by 13-15-year-old pupils is a challenging task. We used cognitive interviews and online probing to test the accessibility and validity of the questions and carried out statistical analysis of the internal consistency and covariance structure of the data to gauge the reliability and fit of the newly developed measurement models. The rigorous questionnaire design and testing procedure helped us to field a survey with questions that were easy to understand and answer and where the scales tapped into the underlying constructs of interest. The exact question wording and response categories of the variables analysed in the upcoming chapters can be found in

Table 7.

It is worth noting that although the questions under scrutiny met the requirements set out by us, we were not successful with all measurements. For instance, questions on another aspect of police legitimacy often used in studies of adult populations, duty to obey the police, did not excel during either the cognitive interviews,

online probing, or tests of consistency and the measurement models. Another limitation of our approach was highlighted during the data collection: pupils with learning difficulties and special needs could not understand many of the questions and required assistance to fill out the survey. This means that although our survey has been tested on a general population of young people, further work is needed to make it more inclusive.

Table 7: Final question wording of the measures used in all subsequent analysis

Construct	Prompt	Item	Response options
Procedural justice	Based on what you have heard or your own experience, how often would you say the police in your neighbourhood...	...treat young people with respect	Almost never – Almost all the time
		...make fair decisions when dealing with young people	
		...explain their decisions and actions	
Police legitimacy	Again, please say to what extent you agree or disagree with each of the following statements about the police in your neighbourhood.	The police generally have the same sense of right and wrong as I do	Strongly disagree – Strongly agree
		I generally support how the police act	
		The police generally stand up for values that are important to you	
Willingness to cooperate with the police	We are now going to ask a few questions about your future interactions with the police. If the situation arose, how likely would you be to...	...call the police to report a crime you had witnessed	Not at all likely – Very likely
		...help police to find someone suspected of a crime by providing information	
		...report dangerous or suspicious activities to the police	
Knowledge of drugs (intent to supply)	Below you will find two questions on the police and drugs. Please answer them to the best of your knowledge.	The term 'intent to supply' means...	A person has a small amount of drugs hidden on them A person is planning to sell or give drugs to someone else A person is a drug dealer A person who is trying to buy drugs
Knowledge of police behaviour (stop and search)		An officer approaching young people who appear to be using drugs is most likely to...	Stop and search everyone there Tell them to stop and then leave them alone Arrest everyone there

5. Assessing the impact of the intervention

Short summary

- We used three different approaches to assess the impact of the intervention: (1) randomised controlled trial approach, (2) block-randomised trial approach, and (3) longitudinal approach.
- The traditional randomised controlled trial approach included either all schools or schools where we could establish balance by considering the responses at baseline (Wave 1). The results indicated that the police-led lessons significantly increased the perceived procedural justice, police legitimacy, and cooperation with the police, while also helping students to learn what intent to supply meant, compared to both the control and teacher conditions.
- The block-randomised trial approach only considered blocks of school-trios where the schools assigned to the different conditions had similar school-level characteristics. Looking at this subset of schools, we found that the police-led class significantly increased the perceived procedural justice, willingness to cooperate, and knowledge about what intent to supply meant compared to the other two conditions. However, police legitimacy was not affected by the police-led intervention based on this approach.
- The longitudinal approach focused on students who could recall their IDs and hence, their responses at Wave 2 could be matched and directly compared to their responses at Wave 1. This analysis implied that the police-led session significantly increased the perceived procedural justice, police legitimacy, and the understanding of what intent to supply meant, compared to both the teacher and control conditions.
- Using three different approaches, we found robust evidence that the police-led session significantly increased the perceived procedural justice of the police and the knowledge of what intent to supply meant compared to both the control and teacher conditions. The results for police legitimacy and willingness to cooperate with the police were mixed. These findings suggest that, at minimum, the police-led intervention increased the pupils' trust in police fairness and helped them to learn some of the relevant material. One reason the police-led session may have been so effective is the high level of perceived procedural fairness of the lessons delivered by the officers.

The three-wave block-randomised design discussed earlier, provides several complementary approaches to analyse the data. First, it is possible to consider the intervention as a large randomised controlled trial. However, there is a possibility that the decision of schools and students to take part in the second wave might be non-random, as they could decide to opt-in or opt-out based on particular school- or individual-level characteristics. This is called self-selection, which could result in biased estimates.

We will address this potential self-selection bias in two ways. First, we will exploit the block-randomisation in our design and only include matched schools (i.e. schools with similar characteristics) in the analysis, allowing an apples-to-apples comparison. Second, it is also possible to estimate changes in the same person's opinions over time, by relying on students who recalled the random ID they were sent after filling out the baseline survey. This is sometimes referred to as pre-test-post-test or longitudinal approach.

We will present the results from each approach by juxtaposing the averages and the share of correct responses under each condition. We will consider five outcome variables detailed earlier in the questionnaire design

chapter: (1) perceived procedural justice, (2) police legitimacy, (3) willingness to cooperate with the police, and (4-5) two knowledge items about young people's understanding of what had been covered at the lesson.

All statistical tests that we ran applied Bonferroni-correction to consider the multiple comparisons being made. Still, due to the high number of comparisons throughout this report and to reduce the detection of false positives, we have set a higher standard for the evaluation of the evidence, only deeming results significant when they reached the 1% significance p level. Therefore, whenever we mention a 'statistically significant difference' we mean that it was at least $p < 0.01$. In all other cases, the p-value was $p > 0.01$.

5.1 Randomised controlled trial approach

First, we analysed all available data from the second, intervention wave (Table 8). Students in the police condition had a significantly higher trust in the procedural justice of the police, police legitimacy, showed a stronger willingness to cooperate with the police, and had a better understanding of what 'intent to supply' means, compared to both the teacher and control conditions. Young people in the control condition scored significantly higher in their trust in the procedural fairness and subjective police legitimacy compared to the teacher condition. The teacher and control conditions were no different on average in willingness to cooperate with the police and in their understanding of what 'intent to supply' meant. The three conditions were similar with regards to the knowledge about the appropriate police behaviour when encountering young people using drugs.

Table 8: Wave 2 (intervention) results of all participating schools (means and percentages, in brackets: standard deviations)

<i>Outcome variables</i>	Schools that took part in the intervention		
	<i>Control</i>	<i>Teacher</i>	<i>Police</i>
Procedural justice	3.58 [0.92]	3.47 [0.90]	3.79 [0.88]
Police legitimacy	3.51 [0.77]	3.38 [0.81]	3.63 [0.73]
Cooperation with the police	3.76 [0.94]	3.65 [0.99]	3.90 [0.86]
Knowledge of drugs (intent to supply)	74%	78%	91%
Knowledge of police behaviour (stop and search)	73%	72%	75%
N	1545	775	873

As a first step, it makes sense to include all available data in the analysis of the efficacy of the intervention. Unfortunately, there were four schools which only entered the study at Wave 2, and thus, we do not have Wave 1 (i.e. baseline) observations for them. Comparing all schools at the baseline is important to establish that the observed differences had not been present before the intervention took place. Therefore, as the next step, we excluded these four schools from the subsequent analysis and compared the schools that were present at both Wave 1 and Wave 2.

At baseline, the control, teacher, and police conditions were on average the same with respect to all variables of interest (Table 9). This implies that the random assignment of schools was successful and that the emerging differences are likely to be attributable to the design.

Table 9: Wave 1 (baseline) and Wave 2 (intervention) results of schools that took part in both waves (means and percentages, in brackets: standard deviations)

Outcome variables	Schools that took part in Wave 1 and Wave 2					
	Baseline			Intervention		
	Control	Teacher	Police	Control	Teacher	Police
Procedural justice	3.49 [0.90]	3.55 [0.90]	3.56 [0.88]	3.52 [0.93]	3.46 [0.90]	3.80 [0.88]
Police legitimacy	3.44 [0.79]	3.38 [0.75]	3.47 [0.71]	3.49 [0.79]	3.38 [0.80]	3.64 [0.73]
Cooperation with the police	3.53 [0.90]	3.55 [0.90]	3.55 [0.88]	3.69 [0.96]	3.65 [0.99]	3.90 [0.86]
Knowledge of drugs (intent to supply)	70%	66%	68%	75%	78%	91%
Knowledge of police behaviour (stop and search)	74%	72%	74%	73%	73%	75%
N	1690	1098	1446	1116	766	860

After the intervention, students in the police condition, reported significantly higher scores of procedural justice, police legitimacy, willingness to cooperate, and the understanding of what intent to supply means compared to the other two conditions (Table 9). Young people in the control condition had a significantly higher score in police legitimacy compared to the teacher condition. However, the control and teacher condition did not differ in procedural justice, willingness to cooperate with the police, and the knowledge about intent to supply. There was no significant difference across the three conditions about the appropriate police behaviour during drug-related encounters with young people.

When analysing the intervention data from a randomised controlled trial perspective, we found a discernible effect of police presence on all three attitudes regarding the police, as well as on one of the two knowledge items. The effect sizes were moderately strong for procedural justice (0.2-0.25) and one of the knowledge items (17-23%), and they were weaker for willingness to cooperate (0.13-0.20) and police legitimacy (0.12-0.15).

Table 10: Wave 1 (baseline) and Wave 2 (intervention) results of all matched school trios that took part in both waves (means and percentages, in brackets: standard deviations)

Outcome variables	Matched school trios					
	Baseline			Intervention		
	Control	Teacher	Police	Control	Teacher	Police
Procedural justice	3.49 [0.91]	3.56 [0.89]	3.55 [0.87]	3.51 [0.89]	3.42 [0.86]	3.77 [0.92]
Police legitimacy	3.41 [0.81]	3.4 [0.76]	3.45 [0.74]	3.47 [0.75]	3.39 [0.80]	3.58 [0.76]
Cooperation with the police	3.73 [0.92]	3.93 [0.90]	3.89 [0.88]	3.66 [0.96]	3.63 [0.96]	3.92 [0.89]
Knowledge of drugs (intent to supply)	67%	66%	66%	70%	77%	88%

Knowledge of police behaviour (stop and search)	70%	73%	71%	69%	71%	75%
N	653	727	581	407	430	420

5.2 Block-randomised trial approach

In the previous section, we used all or most available schools in the analysis. The limitation of this approach is that schools with certain characteristics might be under- or overrepresented in the sample which could sway the results in a certain direction. To avoid this issue, in each region, we used block-randomisation and matched schools to each other based on their characteristics, such as the percentage of students with free school meals, the size of the school, whether the school caters to students with special needs, etc. (For a detailed description, please refer to the study design chapter.) This way we created 'trios' of schools, where each school in the trio had by-and-large similar characteristics, except for being assigned to a different experimental condition (control, teacher, or police).

In this subsample, we analysed five matched trios from Sussex and three from West-Midlands, thus having 24 schools (8 schools from each condition) in the analysis. At baseline, most of the variables were balanced, except for willingness to cooperate with the police, which was significantly higher in the teacher condition compared to the other two conditions (Table 10, on the previous page).

After receiving the intervention, subjective procedural justice and the knowledge of what intent to supply meant were significantly higher compared to both the teacher and control conditions (Table 10). Willingness to cooperate with the police was also significantly higher in the police condition than the other two conditions, but it did not show much increase compared to the score reported at baseline. The police condition had a significantly higher average of police legitimacy compared to the teacher, but not the control condition. The control and teacher conditions did not differ from each other across the variables, and there was no difference regarding the knowledge about appropriate behaviour during a police stop either.

Considering schools with similar characteristics yielded results akin to the randomised controlled trial approach for the police condition. The effect sizes for procedural justice (0.26) and willingness to cooperate (0.26) were moderately strong, while for the knowledge about what intent to supply meant, it was weak (11%). Police legitimacy also had a weak effect size (0.11) which, however, did not reach statistical significance on the 1%-level.

5.3 Longitudinal approach

In this final analysis, we will consider how the opinions of the same students changed over time. As mentioned in the study design chapter, each participant received a random ID at Wave 1 which was sent to their e-mail address. There were 451 students whose schools only joined at Wave 2, thus they could not have possibly received an ID and are excluded from subsequent analysis. From the remaining 2,742 participants, 1,661 successfully recalled their ID (61%) and a further 1,042 (38%) remembered taking part in the first wave despite not being able to recall their ID or providing a wrong ID (either a duplicate of an ID which has been already added or a wrong ID due to a typo or willing alteration). This indicates that close to 99% of the participants (2,703) took part in both waves of the study.

As a first step, we assessed whether the pupils who remembered their ID significantly differed from the ones who could not at the baseline survey (Table 11). Since students without an ID could not be matched to an individual at wave 1, we compared pupils with an ID to the rest of the pupils (many of whom might not have taken part in the intervention). Students who recalled their ID only differed significantly in their willingness to cooperate with the police, which was higher both compared to the teacher and control conditions and to the students in the police condition who could not recall their ID. There was no significant difference across the

other variables at baseline, although, the ID group had noticeably higher averages both for procedural justice of the police and police legitimacy in the police condition. It is worth noting that the participants who recalled their ID were more likely to be female than male but otherwise they did not differ significantly in terms of other demographic (e.g. age, ethnicity) or socio-economic (e.g. pocket money, having their own room vs sharing) variables.

Table 11: Wave 1 (baseline) results of students who provided a valid unique ID at Wave 2 intervention) and those who did not (means and percentages, in brackets: standard deviations)

Outcome variables	Baseline results of students who provided their unique ID and those who did not					
	Recalled their ID			Did not recall their ID / Wrong ID		
	Control	Teacher	Police	Control	Teacher	Police
Procedural justice	3.48 [0.85]	3.53 [0.92]	3.66 [0.86]	3.48 [0.92]	3.49 [0.93]	3.55 [0.90]
Police legitimacy	3.48 [0.76]	3.44 [0.69]	3.59 [0.71]	3.41 [0.81]	3.37 [0.79]	3.44 [0.74]
Cooperation with the police	3.78 [0.89]	3.88 [0.85]	4.02 [0.85]	3.78 [0.93]	3.79 [0.96]	3.85 [0.88]
Knowledge of drugs (intent to supply)	72%	69%	72%	71%	70%	66%
Knowledge of police behaviour (stop and search)	76%	69%	79%	73%	73%	73%
N	680	260	471	1852	1969	2140

As a second step, we compared students who remembered their ID to other students who did not in the intervention survey. As discussed above, some students in the intervention were first time participants, which means that direct comparison to the baseline might not be appropriate for this group.

For the most part, students who provided and who did not provide an ID showed similar results (Table 12). For both groups, the police condition had significantly higher averages for procedural justice and had a higher proportion of correct responses for ‘intent to supply’ compared to the control and teacher groups. While students who recalled their ID had on average higher scores for procedural justice and police legitimacy compared to the control and teacher conditions, students without an ID had only significantly higher scores compared to young people in the teacher condition. On average, police legitimacy was significantly higher in the control condition compared to the teacher condition and procedural justice was significantly higher in the control group compared to the teacher group but only in the non-ID group. There was no significant difference in the knowledge item on police behaviour during drug-related encounters.

However, and noticeably, willingness to cooperate was still significantly higher in the police condition for the group which remembered their ID. In addition, students who recalled their IDs had also significantly higher averages in police legitimacy compared to students who did not remember their ID in the police condition. There were no other significant differences across either of the conditions. All in all, students who recalled their IDs had more favourable views of the police at least in some respects compared to the other students in the police condition, and their views either remained elevated or increased even further.

Table 12: Wave 2 (intervention) results of students who provided a valid unique ID at Wave 2 and those who did not (means and percentages, in brackets: standard deviations)

Outcome variables	Intervention results of students who provided their unique ID and those who did not					
	Recalled their ID			Did not recall their ID / Wrong ID / First-time participant		
	Control	Teacher	Police	Control	Teacher	Police
Procedural justice	3.52 [0.91]	3.39 [0.90]	3.83 [0.85]	3.64 [0.93]	3.51 [0.90]	3.74 [0.92]
Police legitimacy	3.51 [0.78]	3.38 [0.79]	3.68 [0.72]	3.51 [0.76]	3.39 [0.81]	3.57 [0.73]
Cooperation with the police	3.69 [0.91]	3.66 [0.98]	3.93 [0.84]	3.82 [0.95]	3.65 [1.00]	3.86 [0.89]
Knowledge of drugs (intent to supply)	76%	80%	93%	72%	76%	88%
Knowledge of police behaviour (stop and search)	74%	73%	79%	71%	72%	70%
N	748	281	503	797	494	370

Finally, we have also made a direct comparison of the changes in attitudes between the baseline and the intervention (Table 13). Although we are presenting averages here, we used various difference-in-differences techniques to estimate the significance of the effects which corroborated the results discussed here. For the same individuals, the police intervention appeared to significantly increase the average of procedural justice (+0.22), police legitimacy (+0.21) and the proportion of correct responses to intent to supply (+20%). Although willingness to cooperate with the police slightly decreased over time (-0.08), this was significantly smaller compared to the drop in the teacher: -0.18 condition, and smaller, but not significantly so compared to the control condition (-0.11), implying that the police presence could have had some preventative effect. None of the other changes were significant in the teacher and control conditions. The 13% increase in the correct responses for the 'intent to supply' question in the teacher condition would have been significant had we had a similar number of respondents in the teacher condition as in the police condition (e.g. 450). None of the other changes (positive or negative) amounted to statistically significant differences in any of the comparisons between either of the conditions.

Table 13: Wave 1 (baseline) and Wave 2 (intervention) results of students who provided a valid unique ID at intervention (means and percentages, in brackets: standard deviations)

Outcome variables	The opinion of the students with matched IDs at the baseline and after the intervention					
	ID baseline			ID intervention		
	Control	Teacher	Police	Control	Teacher	Police
Procedural justice	3.48 [0.85]	3.53 [0.92]	3.66 [0.86]	3.50 [0.89]	3.43 [0.86]	3.86 [0.82]
Police legitimacy	3.48 [0.76]	3.44 [0.69]	3.59 [0.71]	3.52 [0.77]	3.44 [0.74]	3.80 [0.71]
Cooperation with the police	3.78 [0.89]	3.88 [0.85]	4.02 [0.85]	3.67 [0.92]	3.7 [0.93]	3.94 [0.84]

Knowledge of drugs (intent to supply)	72%	69%	72%	76%	82%	92%
Knowledge of police behaviour (stop and search)	76%	69%	79%	74%	70%	79%
N	680	260	471	680	260	471

In conclusion, tracking the changes within the same participants supports the notion that the intervention had a moderately strong positive impact on the perceived procedural justice and police legitimacy, as well as one of the knowledge components of the lesson. This subgroup (i.e. students who remembered their IDs), however, significantly differed to a small extent at baseline (gender and cooperation), and to a larger extent at the intervention stage (higher police legitimacy and cooperation) from the pupils who could not recall their IDs, provided a wrong ID, or were new to the study. Despite these limitations, the results have largely matched the conclusions of other approaches.

5.4 Discussion

The robust study design afforded us to analyse the data in three different ways: as a traditional randomised controlled trial (with and without the baseline results considered); as a block-matched experiment focusing on school trios with similar characteristics; and as a longitudinal, difference-in-differences study, where we considered the changes in opinions of the same individuals at the baseline and after the intervention. It is important to consider two aspects when interpreting the results.

First, we decided to pursue three alternative approaches as each of them had their unique merits. The traditional randomised controlled trial approach allowed us to include all or most (when the baseline was considered) available data, thus, analysing data from more schools from a wider spectrum. The block-randomised trios permitted the estimation of the expected effects should the treatment be introduced in schools with largely similar characteristics. Finally, the longitudinal approach gave us an insight into how the opinions of individual students changed over time, reducing the chance that the emerging effects were due to self-selection into taking part in the second wave survey. Despite providing better controls, the block-randomised trio and longitudinal approaches suffered from not including some of the data in the analysis. In other words, none of these approaches is better or more accurate per se. However, the persistence of an effect across the various approaches indicates that an effect is likely to be robust and unbiased.

Second, the effects estimated for the traditional randomised controlled trial and the block-randomised approach are slightly different compared to the longitudinal approach. In the first two cases we considered the differences in means across the different conditions, while in case of the longitudinal approach, we focused on the change in means within the same individual over time. This change of approach likely had some effect on the emerging results.

The police condition appeared to provide a moderately strong boost to perceived procedural justice of the police according to all approaches. The presence of the police officer also significantly helped students to learn what intent to supply meant, however, the size of this effect differed based on the approach, the longitudinal approach finding only a weak effect, while the other approaches a moderately strong effect. None of the approaches found any impact on the knowledge regarding the appropriate police behaviour during drug-related encounters. Results on police legitimacy and willingness to cooperate with the police were more inconsistent. The impact of the police condition on police legitimacy either did not differ from zero (block-randomised approach), had a weak positive effect (traditional RCT approach), or had a moderately strong positive effect (longitudinal approach). Similarly, the police provided lesson had either no effect on willingness to cooperate with the police (longitudinal approach), had a weak effect (traditional RCT approach), or had a moderately strong effect (block-randomised approach). An overview of these results is provided in Table 14.

Table 14: Overview of the significant positive impact of the police condition across various approaches after the intervention

	Traditional RCT approach	Traditional RCT, where the baseline was available	Block-randomised trial approach	Longitudinal approach
Procedural justice	✓	✓	✓	✓
Police legitimacy	✓	✓		✓
Cooperation with the police	✓	✓	✓	
Knowledge of drugs (intent to supply)	✓	✓	✓	✓
Knowledge of police behaviour (stop and search)				

Another notable finding is the performance of the teacher condition compared to the other two conditions. Despite providing the same lesson as the police officers, the teacher condition did not significantly improve the perception of the police or knowledge regarding drugs or the police across any of the variables. More worryingly, in some cases, they appeared to decrease perceived procedural justice (traditional RCT approach), police legitimacy (traditional RCT approach with and without the baseline considered), and willingness to cooperate with the police (longitudinal approach) even compared to the control condition. We will discuss some possible explanations for these findings in the ‘Police officer and teacher surveys’ chapter.

These results indicate that the presence of police officers helped increase confidence in the police among young people and could even aid them in their learning about the drugs and the police. By contrast, the teacher-led sessions were ineffective at best, or had a negative impact on the perception of the police at worst, even compared to the control condition. This implies that not the content of the lesson but the way it was delivered and *who* delivered it were more important concerns. To provide a direct test of whether the police appeared to be more procedurally just when encountering students, we asked five questions about how the teachers and the police delivered the lesson. This can also be considered as a manipulation check of whether the lesson was delivered as planned. To reduce the potential stress caused by rating a person of authority, we placed these questions to the very end of the survey and made it optional to respond to them. Still, 9 out of 10 students (teacher condition: 90%; police condition: 90%) shared their views with us. For the sake of brevity, we are only presenting results for the whole sample, but there were no substantive differences based on other approaches taken.

The comparison of means indicated that police officers were viewed more procedurally and distributively just across all variables (Table 15). They were more likely to be perceived to treat students with respect, give students the opportunity to speak their minds, treat everyone fairly, treat young people the same as adults, and explain how and why the police would treat young people in future encounters. Obviously, in some respects, the police officers had an easier job than the teachers. The officers encountered students on their own turf mostly for the first time, closed the power differential by encouraging the students to interact with a delicate subject and the police, and directly explained to them how and why they treat young people the way they do. The novelty aspect could also be helpful – it is more likely that some students could have had a bad ‘history’ with their teachers colouring their views about the lesson delivery. All in all, these results indicate that the lesson has achieved its goals as intended.

Table 15: Perceived procedural justice of lesson delivery in the teacher and police conditions (means, in brackets: standard deviations)

<i>Outcome variables</i>	Based on the PSHE class you have just had, to what extent would you say that the teacher/police officer in class...	
	<i>Teacher</i>	<i>Police</i>
...treated every student with respect.	4.09 [0.91]	4.36 [0.72]
...explained how and why the police would treat young people in future encounters	3.64 [0.97]	4.11 [0.81]
...gave students the chance to speak their minds	3.97 [0.92]	4.21 [0.79]
...treated young people the same as they treated adults	3.72 [0.99]	3.89 [0.89]
...treated everyone fairly, whatever their gender, skin colour or religion	4.23 [0.91]	4.43 [0.75]
N	694	782

There are several other possible complementary explanations for the lack of or potentially negative impact of the teacher-led sessions. Other than the survey at the end of the lesson, teacher-led sessions were quite ordinary affairs, so it is not surprising that they were less influential. It is also possible that certain teachers could have been critical of the police or took the side of students when they were critical of the police. Some of these alternative explanations will be explored in more detail in the chapter on teacher and officer surveys.

6. Assessing the impact of the intervention on subpopulations

Short summary

- This chapter assesses the impact of the intervention on certain subpopulations, focusing on the potential effects of (1) gender, (2) ethnicity, (3) the perceived diversity of the participant's neighbourhood, and (4) having been recently stopped by the police.
- None of the subpopulations showed any differences in the knowledge items and there were no gender differences of perception of the police. Although on their own 'ethnicity', 'perceived diversity of the area', and 'recent stop' had an association with police-related outcome variables, the expected effect of the intervention was very similar and unchanged.
- This analysis implies that the intervention had a very similar effect on average and was not augmented or mitigated by the personal characteristics of the participants. This implies that the intervention would be probably beneficial in most circumstances and speaks to the scalability of the intervention.

The previous chapter focused on the average effect of the intervention on perception of the police and two knowledge items. However, when assessing the impact of any intervention, another important aspect to consider is whether it had a similar effect on most or all respondents. Based on the headline findings, an intervention might show a strong positive effect, but it could mask disparities for certain subpopulations. For instance, white participants could have had a more positive experience compared to students from an ethnic minority background for whom the class could have been ineffective or worse, reduce their support of the police. Even in case of a negative effect for minority respondents, this might not register in the overall effects due to white pupils outnumbering students from an ethnic minority background.

Emerging differences in the effect of the intervention are called effect heterogeneity. Evidence of heterogeneity can be instructive for how, in the future, an intervention should be implemented. Continuing with the above example, in case of adverse effects for ethnic minority respondents, police forces could be advised to only teach lessons in schools and classes where most students are from a white background as their presence could be counterproductive in classrooms with a high proportion of ethnic minority pupils.

To consider the potential effect heterogeneity of the intervention, we analysed schools that took part both in the baseline and intervention as they yielded student samples with largely similar characteristics in each condition but still provided a larger sample size (thus, sufficient statistical power) compared to the block-matched schools. In this chapter, we focused on four variables that we deemed important characteristics for the continued implementation of the classes: (1) gender, (2) ethnicity of the respondent, (3) the perceived diversity of the neighbourhood of the respondent, and (4) previous contact with the police outside the school.

We used various machine learning algorithms to assess the potential effect heterogeneity on the outcome variables. Although we present the four variables one by one, we added all relevant covariates (including others not discussed here) in the same analysis, so any higher-level interactions could be considered. We continued using Bonferroni-correction to consider multiple comparisons and the 1% significance-level ($p < 0.01$) as the threshold for evidence of meaningful statistical effects. As before, and for the ease of comparison, we will present the results as means and percentages in tables side-by-side.

6.1 Gender

Considering gender differences could be important, as experiences with policing tend to differ strongly based on gender. For instance, young males tend to have more encounters with the police and are more likely of being stopped by officers than females. This could meaningfully influence their perception of officers.

Table 16: Results based on gender self-identification

Outcome variables	The opinion of the students with matched IDs at the baseline and after the intervention								
	Female			Male			Non-binary		
	Cont.	Teach.	Pol.	Cont.	Teach.	Pol.	Cont.	Teach.	Pol.
Procedural justice	3.41 [0.86]	3.51 [0.86]	3.71 [0.88]	3.52 [0.91]	3.55 [0.94]	3.75 [0.89]	3.35 [1.04]	2.89 [1.17]	3.75 [0.73]
Police legitimacy	3.41 [0.70]	3.49 [0.80]	3.60 [0.67]	3.49 [0.80]	3.44 [0.84]	3.59 [0.78]	3.29 [1.08]	2.88 [1.13]	3.39 [0.77]
Cooperation with the police	3.80 [0.84]	3.79 [0.94]	4.03 [0.79]	3.68 [1.00]	3.73 [0.98]	3.87 [0.96]	3.78 [1.11]	3.29 [1.35]	3.91 [0.70]
Knowledge of drugs (intent to supply)	73%	79%	90%	77%	76%	91%	75%	70%	90%
Knowledge of police behaviour (stop and search)	76%	70%	76%	72%	71%	73%	50%	89%	70%
N	420	299	412	506	300	362	20	10	10

In the different conditions, and similar to the Wave 1 (baseline) survey, gender was slightly unbalanced with the control group having fewer female respondents (44.4%) compared to the teacher (49.1%) or police (52.5%) conditions. The proportion of pupils identifying as ‘non-binary’ did not significantly differ across the conditions (control: 2.1%; teacher: 2.6%; police: 1.3%), and the remaining participants were male. Our analysis did not find any gender differences on the outcome variables. Identifying as female, male, or non-binary did not have an association with the perception of the police or the ability to learn new information about the police and drugs. As indicated by Table 16, the effect of the intervention did not appear to be dependent on the participants’ gender either, having on average very similar effects.

6.2 Ethnicity

Policing ethnic minorities has always been a fraught topic and has received renewed attention due to the recent Black Lives Matters protests (although, and notably, our surveys predated the recent resurgence of the movement). Crucially, in our sample, not all ethnic minorities were alike in their perception of the police. Pupils from Bangladeshi and Indian background had on average more positive views of the police at Wave 1 compared to white respondents. Conversely, pupils from a Caribbean, African, Mixed, Chinese, or Roma/Traveller background had significantly less favourable views about the police compared to white pupils. Despite these important underlying differences, for the sake of easy interpretation, we merged all ethnic categories and focus on the differences between ethnic minority and white respondents. Notably, however, considering the various ethnic minority groups separately would not have changed the results of the below analysis when it comes to the effects of the intervention.

Table 17: Results based on ethnic minority membership

Outcome variables	Results of white pupils and pupils from an ethnic minority background					
	Ethnic minority			White		
	Control	Teacher	Police	Control	Teacher	Police
Procedural justice	3.32 [0.86]	3.28 [0.91]	3.50 [0.92]	3.54 [0.90]	3.61 [0.90]	3.78 [0.86]
Police legitimacy	3.24 [0.79]	3.20 [0.78]	3.42 [0.75]	3.56 [0.73]	3.46 [0.77]	3.65 [0.69]
Cooperation with the police	3.58 [1.00]	3.61 [1.10]	3.78 [0.97]	3.82 [0.89]	3.81 [0.90]	4.03 [0.81]
Knowledge of drugs (intent to supply)	70%	68%	86%	77%	81%	92%
Knowledge of police behaviour (stop and search)	70%	74%	76%	75%	70%	75%
N	321	184	274	621	420	506

Although there were some differences in the precise composition of ethnic minorities across the three experimental conditions, overall, the proportion of students from an ethnic minority background did not differ significantly (control: 34.1%; teacher: 30.5%; police: 35.1%). Overall, students from an ethnic minority background had significantly lower confidence in the police, with reduced trust in the procedural justice of the police (-0.22), lowered police legitimacy (-0.32), and decreased willingness to cooperate with the police (-0.24). They did not differ, however, in their understanding of the knowledge items. Despite these base level differences, the treatment had on average a very similar effect on the responses of the participants regardless of whether they were white or from an ethnic minority background (Table 17), indicating that ethnic minority pupils were as receptive of the intervention as white pupils.

6.3 Perceived diversity of the participant’s neighbourhood

Views about the police can also be influenced by the diversity of the neighbourhood where the pupil lives. Although we did have the information on the level of ethnicity in the area where the school was based at, we did not incorporate this into our analysis for two reasons. First, catchment areas of schools can differ widely as they can be relatively small in larger cities and larger in rural areas, so it was unclear how relevant the area-level information might be. Second, relying on ethnicity alone can be misleading due to the influx of primarily white immigrants from Europe in the past decade. Due to these reasons, instead of using official statistics, we asked the pupils to gauge the share of people in their neighbourhood who were white British. If they reported ‘almost all or all’ or ‘a lot’, they were considered to live in areas with low diversity. When they said ‘about half’, ‘a few’ or ‘none or very few’, they were considered to live in an area with high diversity.

Table 18: Results based on the level of diversity in the respondent’s area

	Results of students who reported living in an area with high or low levels of diversity					
	High diversity			Low diversity		
Outcome variables	Control	Teacher	Police	Control	Teacher	Police
Procedural justice	3.32 [0.89]	3.46 [0.86]	3.57 [0.89]	3.55 [0.89]	3.54 [0.94]	3.76 [0.88]
Police legitimacy	3.32 [0.75]	3.32 [0.79]	3.41 [0.75]	3.53 [0.77]	3.42 [0.78]	3.64 [0.69]
Cooperation with the police	3.66 [0.93]	3.69 [0.90]	3.84 [0.95]	3.79 [0.93]	3.78 [1.00]	4.01 [0.82]
Knowledge of drugs (intent to supply)	75%	71%	85%	75%	81%	92%
Knowledge of police behaviour (stop and search)	76%	69%	75%	72%	72%	76%
N	347	199	251	595	405	529

Similar proportions of pupils came from high diversity areas in the control (36.8%), teacher (32.9%), and police (32.2%) conditions. Students from areas with low diversity had on average more trust in the procedural justice of the police (+0.23) and police legitimacy (+0.21). Nevertheless, there were no differences between respondents in their willingness to cooperate with the police or the two knowledge items. Again, on average, the effect of the intervention was unaffected regardless of whether the participant came from a low or high diversity area (Table 18). As noted earlier, we also considered higher-level interactions not presented here (e.g. ethnic minority respondents from a high diversity area) but those did not significantly influence the effect of the intervention either. This indicates that the intervention had the same level of effectiveness on pupils who were from areas of low or high diversity.

6.4 Previous contact with the police

Finally, we also asked participants if they were stopped by the police outside of the school since they filled out the last survey or, if this was the first survey they participated in, in the past two months. Considering whether the effect of the intervention is influenced by earlier encounters with the police is important for at least two reasons. First, young people (as adults) who had been stopped by the police tend to have more negative views about the police than others who had not been stopped. Second, even if the earlier encounter was positive or neutral, young people who have had recent experiences with the police could bring their preconceptions to the class and evaluate the intervention from a different perspective compared to the others. Put it differently, the earlier encounter can conceivably 'prime' pupils and influence their attitudes following a future encounter with an officer.

Table 19: Results based on whether the respondent has been stopped recently

Outcome variables	Results of students who have been and have not been recently stopped by the police					
	Have been stopped			Have not been stopped		
	Control	Teacher	Police	Control	Teacher	Police
Procedural justice	3.14 [1.04]	2.86 [0.83]	3.35 [1.27]	3.53 [0.92]	3.53 [0.88]	3.82 [0.85]
Police legitimacy	3.01 [1.00]	2.83 [0.85]	3.06 [1.13]	3.51 [0.77]	3.44 [0.77]	3.66 [0.71]
Cooperation with the police	3.09 [1.20]	3.14 [1.21]	3.21 [1.16]	3.72 [0.93]	3.71 [0.94]	3.93 [0.84]
Knowledge of drugs (intent to supply)	59%	64%	86%	76%	79%	91%
Knowledge of police behaviour (stop and search)	67%	59%	71%	73%	73%	76%
N	67	59	35	1048	694	814

5.9% of students had been stopped by the police between the two survey waves or in the two months leading up to the survey outside of the school, 6% in the control, 7.8% in the teacher, and 4.3% in the police condition. These differences in the base rate of police stops were not statistically significant. Having been recently stopped by the police was not significantly associated with the knowledge items, however, it had a significant negative association with subjective procedural justice (-0.38), police legitimacy (-0.49) and willingness to cooperate with the police (-0.63). As shown in Table 19, it did not change the effect of the intervention. Therefore, an earlier encounter with the police did not seem to influence the effect of the intervention on the outcome variables.

6.5 Discussion

We are aware that due to the lack of significant findings, this chapter could have possibly read as dry and boring. Yet, the lack of significant findings (summarised by an empty Table 20) demonstrated the effect homogeneity of the intervention, indicating that regardless of demographic characteristics, the diversity of the area where the participant lives, or previous contact with the police, the police-led class, on average, had a very similar effect on the outcome variables of interest.

Table 20: Overview of the treatment effect heterogeneity in the various subsamples

	Gender	Ethnicity of the respondent	Diversity of the respondent's neighbourhood	Previous contact with the police
Procedural justice				
Police legitimacy				
Cooperation with the police				
Knowledge of drugs (intent to supply)				
Knowledge of police behaviour (stop and search)				

In other words, these results imply that the intervention deployed in our study does not need to be tailored or modified to certain audiences, as it is likely to have a very similar effect on subpopulations with diverse characteristics. This can be considered a major strength suggesting that, if implemented with fidelity, scaling up the intervention is expected to have by-and-large the same positive effect on pupils. Notably, we did not find any sign of treatment effect heterogeneity even after considering a wide set of covariates not discussed here (such as age, socio-economic status, immigrant background, etc.) providing robust evidence for the homogeneity of the effects of the intervention.

7. Assessing the long-term impact of the intervention

Short summary

- The Wave 3 surveys took place on average ten weeks after the intervention (Wave 2). We used two approaches to test the longevity of the effects of the intervention: (1) randomised controlled trial and (2) longitudinal approaches.
- The randomised controlled trial approach considered either all schools in Wave 3 or schools where we could establish the balance of the variables by considering the responses at baseline (Wave 1). When assessing the data from all schools, we found that the police-led intervention had a significant impact on procedural justice, police legitimacy, cooperation, and the understanding of intent to supply compared to the treatment and control conditions. The results were similar when considering schools where we could establish balance at Wave 1, however, reported willingness to cooperate with the police was not significantly different any longer compared to the other conditions and the knowledge of intent to supply only significantly differed from the control but not the teacher condition.
- Using the longitudinal approach, we only assessed pupils who could recall their IDs and were present at all three waves. This analysis implied that pupils in the police condition had more favourable views of police procedural justice compared to the teacher and control conditions and that students increased their knowledge about what intent to supply meant compared to the control but not the teacher condition. The police-led intervention had no clear significant effect on police legitimacy or cooperation compared to the teacher or control conditions.
- We found robust evidence that the police-led session had a lasting significant positive effect more than two months after the intervention on the perceived procedural justice of the police compared to both the teacher and control conditions. Knowledge of what intent to supply meant was also significantly higher compared to the control but not the teacher condition. The evidence was mixed whether the intervention had any long-term effects on police legitimacy and cooperation. The participants still recalled that, in several respects, the police officer delivering the lesson was more procedurally fair compared to the teacher, implying that the changes in procedural justice were likely based on the participants' memory of police behaviour during the intervention.

A crucial test of any intervention's success is the longevity of the effect. The Wave 3 post-intervention survey took place on average 71 days after the intervention (Standard deviation=19, Median=70, Min.=13, Max.=154), which means that these effects needed to be fairly resolute to persist over time.

As with the assessment of the intervention, we examined our data with the randomised controlled trial and longitudinal approaches. Unfortunately, only one matched school trio remained in the study for Wave 3, so we could not consider the block-randomised approach. In our analysis, we followed similar principles as before, only considering differences significant if they reached the 1%-level, after using Bonferroni-correction for multiple comparisons.

7.1 Randomised controlled trial approach

Considering all schools that took part post-intervention (Table 21), young people in the police condition reported significantly higher averages of procedural justice, police legitimacy, and cooperation with the, and significantly more of them could identify what intent to supply means compared to the other two conditions. Respondents in the control condition had a significantly higher mean of procedural justice than respondents in the teacher condition, while pupils in the teacher condition had a significantly better understanding of what intent to supply means compared to the control condition. The teacher and control conditions did not differ in

perceived police legitimacy and willingness to cooperate with the police. Knowledge of appropriate police behaviour during a drug-related encounter was similar across all three conditions.

Table 21: Wave 3 (post-intervention) results of all participating schools (means and percentages, in brackets: standard deviations)

<i>Outcome variables</i>	Schools that took part post-intervention		
	<i>Control</i>	<i>Teacher</i>	<i>Police</i>
Procedural justice	3.6 [0.92]	3.4 [0.98]	3.75 [0.95]
Police legitimacy	3.54 [0.76]	3.4 [0.77]	3.69 [0.75]
Cooperation with the police	3.72 [0.87]	3.6 [0.88]	3.87 [0.8]
Knowledge of drugs (intent to supply)	76%	84%	87%
Knowledge of police behaviour (stop and search)	72%	73%	75%
N	654	291	705

As there were two schools which did not take part in all three waves, we rerun the analysis on schools which participated throughout the study, so we could check how the effects changed over time.

At baseline (Table 22), the police condition had a significantly higher average of police legitimacy compared to the teacher condition, and a significantly higher average of willingness to cooperate with the police compared to both the teacher and control conditions. There was no significant difference across the rest of the variables.

At the intervention (Table 22), respondents in the police condition had significantly higher averages of procedural justice, police legitimacy, and willingness to cooperate with the police, and were more likely to correctly identify what intent to supply means, compared to the control and teacher conditions. The control condition had significantly higher means of procedural justice, police legitimacy, and willingness to cooperate compared to the teacher condition. The teacher and control conditions did not differ in their understanding of what intent to supply means, while none of the conditions differed in identifying the appropriate police behaviour during drug-related police encounters.

Finally, at post-intervention (Table 22), the police condition had significantly higher averages of procedural justice, police legitimacy, and willingness to cooperate with the police compared to the teacher and control conditions, which were not significantly different across these three variables. The police and teacher conditions were significantly higher in understanding what ‘intent to supply’ means compared to the control group. The three conditions did not differ in picking the appropriate police behaviour during drug-related police encounters.

Table 22: Wave 1 (baseline), Wave 2 (intervention), and Wave 3 (post-intervention) results of schools that took part in all three waves (means and percentages, in brackets: standard deviations)

Outcome variables	The opinion of the students with matched IDs at the baseline and after the intervention								
	Baseline			Intervention			Post-intervention		
	Cont.	Teach.	Pol.	Cont.	Teach.	Pol.	Cont.	Teach.	Pol.
Procedural justice	3.51 [0.90]	3.49 [0.90]	3.59 [0.87]	3.57 [0.94]	3.39 [0.89]	3.83 [0.85]	3.59 [0.95]	3.4 [0.98]	3.75 [0.95]
Police legitimacy	3.44 [0.79]	3.38 [0.75]	3.52 [0.70]	3.53 [0.80]	3.32 [0.84]	3.71 [0.70]	3.54 [0.80]	3.4 [0.77]	3.69 [0.75]
Cooperation with the police	3.76 [0.94]	3.78 [0.90]	3.98 [0.87]	3.57 [0.94]	3.39 [0.89]	3.83 [0.85]	3.70 [0.88]	3.60 [0.88]	3.88 [0.80]
Knowledge of drugs (intent to supply)	74%	71%	70%	75%	77%	92%	75%	84%	87%
Knowledge of police behaviour (stop and search)	74%	72%	75%	73%	73%	75%	72%	73%	75%
N	1211	515	860	874	383	589	490	291	705

In this subsample of schools, the intervention had a moderately strong effect on procedural justice (0.26) and the understanding of what intent to supply means (17%) compared to the control condition. Both of these effects became slightly smaller post-intervention (procedural justice: 0.16; intent to supply: 12%) and the knowledge of intent to supply did not significantly differ compared to the teacher condition, only in comparison to the control condition.

Unfortunately, due to the differences at baseline, in case of police legitimacy and willingness to cooperate with the police, it is difficult to judge whether the effects can be attributed to the intervention. Police legitimacy showed a noticeable increase compared to the control condition (difference at baseline: 0.08; intervention: 0.24; post-intervention: 0.16) but these direct comparisons can be difficult to make as the makeup of the sample also changed over time. With willingness to cooperate such differences were smaller compared to the baseline (difference at baseline: 0.22; intervention: 0.16; post-intervention: 0.18) which makes it less likely that they emerged due to the intervention.

7.2 Longitudinal approach

As with the intervention, the longitudinal approach will only consider participants from schools which had been part of the study from the baseline. Therefore, it will exclude the 164 respondents who joined the study at Wave 2. From the remaining 1,486 participants, only 519 remembered their IDs (35%). A further 816 (55%) mentioned that despite not being able to recall their IDs, they were present at both occasions, 45 (3%) were only present at the first wave, and 103 (7%) only at the second but not the first wave. Therefore, based on their own admission, 90% of the sample (1,335) took part in both waves and 1,433 (97%) of them were there for the intervention.

As a first step, we compared the baseline data of students who remembered their ID to others in the same schools (Table 23). Procedural justice, the knowledge about intent to supply, and the appropriate police behaviour during drug-related police encounters were not significantly different across any of the conditions. Among those students who recalled their ID, police legitimacy was significantly higher in the police condition

compared to the teacher and control conditions, as well as the control and police conditions among respondents who did not provide their IDs. Willingness to cooperate in the police condition among students with unique IDs was also significantly higher compared to any other conditions at baseline.

Table 23: Wave 1 (baseline) results of students who provided a valid unique ID at Wave 3 (post-intervention) and those who did not (means and percentages, in brackets: standard deviations)

	Baseline results of students who provided their unique ID and those who did not					
	Recalled their ID			Did not recall their ID / Only participated in one wave / Wrong ID		
Outcome variables	Control	Teacher	Police	Control	Teacher	Police
Procedural justice	3.51 [0.85]	3.52 [0.89]	3.69 [0.81]	3.5 [0.91]	3.47 [0.90]	3.57 [0.89]
Police legitimacy	3.51 [0.74]	3.41 [0.66]	3.67 [0.61]	3.43 [0.81]	3.67 [0.78]	3.49 [0.72]
Cooperation with the police	3.88 [0.79]	3.75 [0.88]	4.12 [0.68]	3.74 [0.95]	3.79 [0.91]	3.74 [0.83]
Knowledge of drugs (intent to supply)	79%	76%	80%	73%	69%	67%
Knowledge of police behaviour (stop and search)	76%	73%	78%	74%	71%	74%
N	234	120	165	967	390	687

Table 24 collates the results of people who could recall their IDs across the three waves. We are presenting averages but the significance of the effects had been assessed with multiple difference-in-differences estimators. At the intervention, the police condition significantly increased the perceived procedural justice (+0.26), police legitimacy (+0.17), and the understanding of what intent to supply means (+16%) compared to the other conditions. Similarly, willingness to cooperate showed a significantly lower drop (-0.07) compared to the other two conditions (control: -0.21; teacher: -0.19). Apart from willingness to cooperate, the responses in the teacher and control conditions remained unchanged. Knowledge of the appropriate behaviour during stop and searched remained stable over time for all conditions.

Table 24: Wave 1 (baseline), Wave 2 (intervention), and Wave 3 (post-intervention) results of students who provided a valid unique ID post-intervention (means and percentages, in brackets: standard deviations)

Outcome variables	All waves – Longitudinal								
	Baseline			Intervention			Post-intervention		
	Cont.	Teach.	Pol.	Cont.	Teach.	Pol.	Cont.	Teach.	Pol.
Procedural justice	3.51 [0.85]	3.52 [0.89]	3.69 [0.81]	3.62 [0.89]	3.4 [0.90]	3.95 [0.75]	3.61 [0.93]	3.33 [0.95]	3.89 [0.89]
Police legitimacy	3.51 [0.74]	3.41 [0.66]	3.67 [0.61]	3.58 [0.73]	3.39 [0.75]	3.84 [0.64]	3.57 [0.75]	3.37 [0.75]	3.77 [0.75]
Cooperation with the police	3.88 [0.79]	3.75 [0.88]	4.12 [0.68]	3.67 [0.87]	3.56 [0.93]	4.05 [0.70]	3.7 [0.82]	3.5 [0.86]	3.94 [0.85]

Knowledge of drugs (intent to supply)	79%	76%	80%	76%	82%	96%	82%	86%	91%
Knowledge of police behaviour (stop and search)	76%	73%	78%	74%	73%	83%	77%	70%	80%
N	234	120	165	234	120	165	234	120	165

At post-intervention, the police condition showed a moderately strong significant increase for procedural justice (+0.20) which remained the highest among the three conditions (Table 24). Although the average of police legitimacy was also significantly higher in the police condition compared to the teacher and control conditions, this was not a significant increase when comparing it to police legitimacy at baseline (+0.10). Cooperation with the police still remained significantly higher in the police condition compared to the teacher and control conditions, but the change in its value from the baseline (-0.18) was not significantly different compared to the teacher (-0.25) or the control (-0.18) conditions. The percentage of respondents correctly identifying what intent to supply meant was significantly higher in the police and teacher conditions compared to the control condition. The average change over time for the police condition (+11%) did not significantly differ from the change in the teacher condition (+10%) either. The knowledge regarding the appropriate police behaviour during police stops remained unchanged.

The results of the longitudinal analysis are largely similar to the findings from the traditional RCT approach. Although the effects of the police intervention somewhat faded over time, especially in case of police legitimacy and willingness to cooperate with the police, the impact on procedural justice was lasting and resulted in a moderately strong boost in confidence even after on average two months of the intervention. Similarly, a higher percentage of students managed to recall what intent to supply means compared to the control group, however, there was some considerable fading and pupils in the teacher condition seemed to have caught up with the other students over time.

7.3 Discussion

We analysed the post-intervention data as a traditional randomised controlled trial (with and without the baseline considered) and as a longitudinal, difference in differences study. As before, we expect that similar results emerging from multiple approaches are more likely to be robust and unbiased.

The traditional RCT approach provided the most favourable results regarding the long-term impact of the intervention, with significant positive findings for the three policing variables and the knowledge of intent to supply compared to the teacher and control conditions. After considering the baseline, the effect of procedural justice remained moderately strong (compared to the other two conditions) and the knowledge of the meaning of intent to supply was also significantly higher but only compared to the control, not the teacher condition. Despite the lack of balance at baseline, and due to the relative strength of the effect size, we also believe that increased police legitimacy is also attributable to the treatment. Results from the longitudinal approach also implied that the rises in procedural justice and the knowledge of intent to supply are likely attributable to the encounter with the police officer. Table 25 summarises these findings.

Table 25: Overview of the significant positive impact of the police condition across various approaches post-intervention

	Traditional RCT approach	Traditional RCT, where the baseline was available	Longitudinal approach
Procedural justice	✓	✓	✓

Police legitimacy	✓	✓	
Cooperation with the police	✓		
Knowledge of drugs (intent to supply)	✓	✓	✓
Knowledge of police behaviour (stop and search)			

With the teacher condition, it is notable that despite not being able to augment attitudes about the police, one knowledge aspect has matched the police condition’s impact over time. It is possible that students who are used to revision of the class materials could not recall the meaning of ‘intent to supply’ right after the delivery of the lesson but gained similar knowledge after having had time to spend time with their notes on a later date.

These results imply that the police held lesson (1) had an impact on student perception of the police (procedural justice at minimum) on average more than two months after the student met the officer and that (2) police officers could also assist students with learning new materials which they managed to recall even months later.

Table 26: Perceived procedural justice of lesson delivery in the teacher and police conditions (means, in brackets: standard deviations)

	Looking back at the PSHE class you had on drugs and the police, to what extent would you say that the teacher/ police officer in class...	
<i>Outcome variables</i>	<i>Teacher</i>	<i>Police</i>
...treated every student with respect.	4.13 [0.92]	4.35 [0.75]
...explained how and why the police would treat young people in future encounters	3.64 [0.96]	4.16 [0.79]
...gave students the chance to speak their minds	4.03 [0.94]	4.23 [0.82]
...treated young people the same as they treated adults	3.69 [1.00]	3.97 [0.88]
...treated everyone fairly, whatever their gender, skin colour or religion	4.23 [0.93]	4.43 [0.72]
N	261	648

To provide context to these effects, and as a long-term manipulation check, we also asked students to reminisce about the PSHE class they had on drugs and the police. As before, answering these questions came at the end of the survey and was optional, but about 9 out of 10 pupils decided to share their views about the lesson delivery with us (teacher: 90%, police: 92%). Police officers still scored significantly higher on treating every student with respect, explaining how and why the police would treat young people, and treating young people the same way as adults, compared to the teachers (Table 26). By post-intervention, however, there was no difference in student perception of giving students a chance to speak their minds and equal treatment. These results also indicate some fading of the impact of the police visit. Yet, the lasting effect on student evaluations chimes with the above findings and imply that the encounter with the officer was a teachable moment.

8. Police officer and teacher surveys

Short summary

- After the study has concluded, we sent out surveys to teachers and police officers to learn their views about participating in the research.
- Police officers had very positive views about the training, the vast majority of them finding the training relevant, useful, and influential on how they will deliver inputs in the future. When prompted, their main complaint was not having a longer training so they could spend some more time on the new materials and concerns regarding continued support of the programme.
- Overall, both the teachers and the police officers were satisfied with the lesson plan. Both groups thought that the students enjoyed the lesson and were engaged throughout. There were minor differences between the emphasis of the learning outcomes, as slightly more teachers put a bigger emphasis on drugs and the law in the classes compared to police officers who were more invested in discussing the police perspective. Both teachers and police officers were overall satisfied with the lesson delivery.
- Police officers and teachers had largely similar views about how young people in the area they lived in might perceive the police. Based on the correlation with school-level views, police officers appeared to have a better insight into students' opinions of the police, compared to the teachers.

After the post-treatment surveys have been concluded, we sent out tailored surveys to police officers and teachers who took part in the study. With these surveys, we wanted to give the participants a chance to share their opinions about the lesson plans, their experiences at class, etc. In addition, we wanted to consider whether the personal opinions held by the officers and teacher had any impact on the results of the intervention. We hoped that these surveys could shed some light on the puzzling results we found under the teacher-intervention condition.

The study protocol was similar to the one we used with the school surveys: the initial email to the participants was followed up by three reminders. Unfortunately, probably due to the unfolding pandemic, the uptake was relatively low, with only 85 police and 32 teacher respondents. Thus, due to the incomplete sampling, the below results should be interpreted with caution.

8.1 Police views on the training

85 police officers returned their surveys from which 31 did have a chance to deliver the 'Drugs and the police' lesson at a school. As the demographic characteristics are considered sensitive data, the participants could decide to opt-out from sharing them with us, which many of them (12-18%) decided to do. Among those who responded, 37% was 45-54 years old, 34% was 35-44 years old, 17% was 25-34 years old, and 11% was 55-64 years old. 60% of the participants were female, 39% male, and 1% non-binary. Except for one participant who was from mixed (white and black African) ethnicity, the rest were either white British or from another white background. The vast majority (91%) of respondents were in youth-related (youth person officer, schools officer, children and young person officer, etc.) or community-oriented (neighbourhood police officer, police community support officer, etc.) roles.

Table 27: Participating officers’ view on the ‘Police in the classroom’ training

	The two-day ‘Police in the Classroom’ training I received...		
	<i>Somewhat/ strongly agree</i>	<i>Neither agree, nor disagree</i>	<i>Strongly/ somewhat disagree</i>
...was relevant to my needs.	86.9%	3.57%	9.52%
...has proved/will prove useful in subsequent lesson deliveries.	85.71%	5.95%	8.33%
...has changed the way I have delivered/will deliver subsequent inputs in schools.	76.19%	13.1%	10.71%

Generally, the participating officers had a positive view of the workshop (Table 27). 86.9% of the respondents somewhat or strongly agreed that the training was relevant to their needs, 85.7% thought that what they learnt has proven or will prove useful in future lesson deliveries, and 76.2% reported that the training had a profound impact on how they will provide input in schools in the future. The proportion of officers who disagreed with these statements were barely above or below 10% (8.3-10.7%), indicating a strong consensus regarding the perceived benefits of the training

To get a better insight into what the participants enjoyed about the training, we also asked the officers to share any further thoughts they might have with us in a textbox. Most officers praised the course for its structure, how engaging the activities were, and for the new skills they learnt. Complaints (which were much fewer) included the brevity of the training, the limited time to practise the lesson plan, and concerns about whether continued support will be provided to officers in the future. A representative selection of quotes can be found in Table 28. Some of them have been slightly edited for typos and for the sake of clarity.

Table 28: Quotes from the police officers

<p>“Having 'winged' lessons for the last 15 years this has been an absolute pleasure to work with such a structured plan Thank you!”</p> <p>“I found the two days very informative however, it felt that there was a lot squeezed into the time we had. I wouldn’t have minded if it could have been spread out a little more.”</p> <p>“Good course and gives ideas and confidence to deliver well”</p> <p>“I listened in on the 2-day training and was impressed by it, my team were really engaged and found it really useful. We would love to have the opportunity to receive further inputs as we have many more PCSOs who could benefit.”</p> <p>“It was very useful to learn how to deliver on a subject rather than just being a police officer giving a talk.”</p> <p>“The presenters were professional and engaging, however it was disappointing that our whole team couldn’t have attended as everyone would have benefitted from the course. In a large team this creates a little unease as to who was chosen and why.”</p>

“I thoroughly enjoyed the course. The content was fantastic. The delivery was perfect and it has completely changed the way I run sessions in schools.”

“There was time to practice the resources but there was a lot crammed into the 2 days. I appreciate it would be a big ask but some sort of follow up session 6 - 12 months later would be advantageous to check how it's being implemented, how things could be developed and expand on the knowledge that we have gained from the training.”

“I thoroughly enjoyed the training as I normally tend to shut off in training but the trainers kept the sessions enjoyable, active, engaging and not too long.”

“The two-day workshop benefited me a lot as I was used to just standing up and speaking the young people instead of getting them involved and making the sessions more interactive.”

“Best and most relevant course I have been on in the Police (for 20 plus years).”

8.2 Police and teacher experience with the lessons

We were also interested in the perceived success of the lessons and their delivery. We asked the officers who had had a chance to deliver a lesson (31 officers) and the teachers (in the treatment group) who taught all three lessons (16 teachers) about their experiences. We performed appropriate statistical tests (i.e. exact tests) for the comparison of the mean and median of each variable but found that the differences in the evaluations of teachers and police officers were not statistically significant. Thus, the small differences described below are likely to be attributable to statistical chance.

The vast majority of participants were satisfied with the lesson plan (Table 29), including its structure (police=79.8%; teacher=81.3%), contents (police=83.3%; teacher=93.8%), and the activities (police=84.5%; teacher=93.8%). This implies, that the officers and teachers were largely in agreement about their contentment with the lesson plan. The slightly higher dissatisfaction among officers could have emerged due to their lack of familiarity with similar materials, but as mentioned above, these differences were not statistically meaningful.

Table 29: Police and teacher satisfaction with the lesson plan

	How satisfied or dissatisfied were you with the lesson plan? In particular...					
	Police			Teacher		
	<i>Somewhat/very satisfied</i>	<i>Undecided</i>	<i>Very/somewhat dissatisfied</i>	<i>Somewhat/very satisfied</i>	<i>Undecided</i>	<i>Very/somewhat dissatisfied</i>
...the structure of the lesson.	79.76%	10.71%	9.52%	81.25%	12.5%	6.25%
...the content of the lesson.	83.33%	8.33%	8.33%	93.75%	6.25%	0%
...the activities in the lesson.	84.52%	3.57%	11.9%	93.75%	6.25%	0%

Table 30: Police and teacher perception of student engagement and learning outcomes

	The students...					
	Police			Teacher		
	<i>Somewhat/ strongly agree</i>	<i>Neither agree, nor disagree</i>	<i>Strongly/ somewhat disagree</i>	<i>Somewhat/ strongly agree</i>	<i>Neither agree, nor disagree</i>	<i>Strongly/ somewhat disagree</i>
...were engaged with the lesson.	93.55%	6.45%	0%	93.75%	0%	6.25%
...enjoyed the lesson.	90.32%	6.45%	3.23%	93.75%	0%	6.25%
...learnt a lot about the drugs and the law.	77.42%	16.13%	3.23%	87.5%	6.25%	6.25%
...got a perspective of the work of the police.	87.1%	9.68%	3.23%	68.75%	18.75%	13.5%

As shown in

Table 30, more than 90% of officers and teachers thought that the students were engaged with the lesson and enjoyed it. There was a slight disagreement regarding the learning outcomes, police officers believing that the students learnt slightly more about the police perspective (87.1%) than drugs and the law (77.4%), while teachers believing the opposite (drugs and the law=87.5%; police perspective=68.8%). It seems only natural that police officers could have spent more time on talking about policing while teachers might have prioritised the letter of the law and the knowledge about drugs instead. Nevertheless, as the differences between the means and medians of these variables were not statistically significant, one should not read too much into these slight discrepancies.

As implied by Table 31, the overwhelming majority of the police officers and teachers agreed that the lesson went well (police=93.5%; teacher=93.8%) and that they enjoyed teaching the class (police=93.5%; teacher=87.5%). Teachers were marginally more satisfied with their lesson delivery (93.8%) than police officers (80.6%), which is unsurprising given their long record of teaching.

Table 31: Police and teacher experience with the lesson delivery

	To what extent do you agree or disagree with each of the following statements about your personal experience of the lesson you delivered?					
	Police			Teacher		
	<i>Somewhat/strongly agree</i>	<i>Neither agree, nor disagree</i>	<i>Strongly/somewhat disagree</i>	<i>Somewhat/strongly agree</i>	<i>Neither agree, nor disagree</i>	<i>Strongly/somewhat disagree</i>
All in all, I think that the lesson(s) went well.	93.54%	3.23%	3.23%	93.75%	0%	6.25%
I enjoyed teaching the lesson(s).	93.54%	3.23%	3.23%	87.5%	6.25%	6.25%
I was satisfied with my delivery of the lesson(s).	80.64%	12.9%	3.23%	93.75%	0%	6.25%

In summary, the teachers and the police officers seemed to have seen eye-to-eye on all questions. Most of them were pleased with the lesson plan; thought that that the students were engaged and enjoyed the lesson; and they themselves enjoyed the teaching experience which they thought went reasonably well. There were some slight differences in what materials they perceived to have been prioritised and their satisfaction with their lesson delivery, but none of these reached statistical significance.

8.3 Police and teacher expectations of the attitudes of young people

In the final analysis, we included police officers who delivered lessons and teachers who delivered (treatment) or did not deliver (control) lessons (i.e. we added the 16 responses from teachers in the control group).

As hypothesised earlier, one possible explanation for the comparatively smaller learning and lower confidence in the police in the teacher treatment group is the teachers’ desire to take the students’ side, especially if they expect the students to be sceptical of the police. To evaluate this theory, we asked police officers and teachers to answer a few questions about what young people might think about the police in the area they work in. In particular, we asked them to rate five statements on the procedural and distributive justice of the police with a 5-point strongly disagree-strongly agree scale, larger numbers indicating stronger agreement.

Table 32: Police and teacher expectations about young people’s attitudes towards the police (means and standard deviations)

	In general, young people in the area I work in believe...		
	Police	Teacher (treatment)	Teacher (control)
...the police can be trusted to make decisions that are right for people in the community.	3.39 [1.04]	3.5 [0.97]	3.13 [0.96]
...officers treat those they encounter with politeness and dignity.	3.59 [1.03]	3.75 [0.86]	3.19 [0.75]
...officers respect citizens’ rights.	3.64 [1.09]	3.75 [0.93]	3.25 [0.86]
...the police provide the same quality of service to all citizens.	3.37 [1.15]	3.88 [0.72]	3.13 [1.02]
...the police enforce the law consistently.	3.43 [1.09]	3.56 [1.03]	2.94 [1.12]

Table 32 contains the means and standard deviations of the statements under each condition. Based on the naïve comparison of means, teachers in the treatment group provided the highest estimate, followed by police officers, and then teachers in the control group. However, and notably, these differences were not statistically significant, implying that the means of these groups are essentially the same.

As a follow-up analysis, we have also assessed whether teachers and police officers have a realistic expectation of the perception of young people in their respective schools. We estimated the association between procedural and distributive justice on the school-level and on the individual level separately for police officers (25 schools) and teachers (26 schools). Our results indicate that police officers have a better grasp of how young people think about the police ($r=0.3-0.5$) compared to teachers ($r=0.1-0.3$) where the statistical association was mostly non-significant. This suggests that teachers might be more likely to misread student expectations about the police and that this misunderstanding could have contributed to the comparatively negative outcome in the teacher treatment group. However, this is still only speculation on our side, due to the low number of cases and the unavoidable selection bias in who decided to return the questionnaire, this result should not be over-interpreted.

9. Policy conclusions and future directions

Short summary

- We summarise the findings of this successful trial, which showed that the police-led intervention (1) on the short run increased confidence in the police while successfully teaching students new concepts, (2) had a uniform effect on the participants regardless of their personal characteristics, the area where they lived at, or previous experiences with the police, and (3) on the long run still had a statistically significant positive effect on perceived procedural justice of the police and the learning of what ‘intent to supply’ means.
- We discuss various reasons why the intervention might have been successful, such as (1) enthusiastic officers self-selecting to teach children; (2) officers receiving a well-designed training; (3)

a lesson plan conveying messages of procedural justice and respect for boundaries; (4) the lesson being embedded in the PSHE curriculum, and (5) the encounters taking place on the pupils 'turf'.

- We highlight some limitations of the study, such as the need to better understand the appropriate number of sessions for lasting effect (dosage), the appropriate age for maximum impact, the need to test the intervention in a more diverse set of schools, and finding the right topic(s) for young people.

This was a successful trial. Having police officers (rather than teachers) give a lesson like 'law and drugs' as part of a Personal, Social, Health and Economic Education (PSHE) lesson not only had immediate effects, but also relatively long-lasting impact ten weeks later on young people's attitudes towards the perceived procedural justice of the police, as well as their understanding of what 'intent to supply' actually means. When the usual school teacher delivered the exact same lesson, the same benefits could not be realised. Indeed, the evidence indicates that pupils perceived police officers to be more procedurally fair in delivering this lesson than the teachers, perhaps explaining why the police-led session was such a success. Crucially, the effect of the intervention appeared to be uniform regardless of the participants' personal characteristics, the area they lived in, previous experiences with the police, and so on.

To summarise, the intervention (1) was effective on the short run in shaping the pupils' attitudes towards the police as well as gaining new knowledge about drugs and the law, (2) had a largely similar impact on all participants, providing some evidence on the potential scalability of the intervention, and (3) the effects lasted for some two or three months at least for procedural justice and learning what 'intent to supply' meant.

Why is it important that young people have positive experiences with the police? Attitudes towards authority and the law are formed during adolescence and an adult's early years, and depending on the quantity and quality of people's direct and indirect experiences with the law, young people can develop a healthy relationship with the law based on mutual understanding and respect, or an unhealthy relationship characterised by animosity and mistrust. The former has been associated with more support for the law and legal compliance, while the latter has been shown to encourage cynicism, disobedience, and defiance. If children's experience during the legal socialisation process does not promote the development of a legitimacy-based model of legal authority, then as adults, people relate to law instrumentally in terms of costs and rewards.

Based on the current results, if officers were to engage in more educational delivery, what should this look like? While the project was designed to test whether it worked more than why it worked, it is possible to speculate, especially because we have insight from the teacher and officer survey:

- 1) Officers 'self-selected' into the project, meaning that those who wanted to take part did. It is likely that their enthusiasm was evident to many of the school children.
- 2) Officers received a well-designed training which – according to the returned surveys – they found useful and enjoyable. These training sessions were delivered by a police officer and a former PSHE teacher, providing insights from both professions.
- 3) The lesson plan sought to encourage perspective-taking, emphasised procedurally just policing, and the respect for legal boundaries. The officers clearly did a good job conveying what they wanted to convey based on the survey responses.
- 4) This particular lesson plan was embedded in well-established PSHE lessons, and because officers were talking about law and law enforcement, this may have seemed relative natural to many of the young people.
- 5) The encounters between officers and school children occurred 'on their turf', which may have helped the process of mutual understanding and perspective-taking.

In closing, we should be clear that we are not recommending that police officers go into schools in an enforcement, surveillance or protective capacity. We do not recommend police officers help to secure school safety through carrying out surveillance and enforcement activity, such as conducting security inspections. Such activities occur in some parts of the US, but we do not think they have a place in the UK, where policing by consent is so important.

The focus, instead, is on education. Research into legal socialisation shows that people, as they grow up, learn about authority, rules, right and responsibilities first from their parents, second from their teachers, and third from legal officials (such as the police). Police officers engaging with schools may help 'engineer' the type of positive experiences that foster a sense of trust and legitimacy. Rather than young people largely having interactions with police officers out in the street, where the officers are acting in a regulatory capacity, they would therefore have more humanised interactions in their early teenage years that help foster a sense of mutual trust.

We should stress that we do not think this is a licence for police officers enhancing young people's beliefs that police can be trusted to treat people with respect and dignity and make decisions in objective ways, and thereby mask inequalities and injustice. It is the case that there is a good deal of evidence that when people believe they have been treated fairly, they are more likely to accept an outcome, even if it goes against their interests. Extend these findings out, and one might conclude that the procedural justice can be used as an ideological cloak, allowing the powerful to get away with the misuse of power, especially when it comes to minority ethnic groups. Any engagement with schools in the way that we recommend should be done in a sincere fashion, alongside all of the other ways of ensuring fair and equitable policing.

Finally, we should note some of the limitations of the study, which could inform the future directions of research as well. It is important not to overstate the significance of the findings because the research participants only had a single encounter with the police. Nevertheless, and thanks to our robust research design, we managed to estimate a reliable causal impact on young people's attitudes, and while the size of the effect is unlikely to single-handedly 'turn around' somebody's trajectory, the accumulation of positive experience over time may pay dividends. It is therefore important to think about more sustained police engagement in education in schools. From a methodological point of view, this is the question of 'dosage': how many police encounters would be beneficial? How long should each encounter last to achieve maximum impact? How far in time should these encounters be from each other?

Another, corresponding question is the right age when young people should be targeted. This research focused on 13-15-year-olds because that was the time when they had PSHE education. When testing our questionnaire, in one focus group young people suggested that this might be too old to teach them about the drugs and the law. Some teachers, on the other hand, were of the opinion that some students could have been too young to fully comprehend this topic. It requires further research to answer the question: what is the right age for young people to receive similar interventions?

Most of our schools came from Sussex and West-Midlands, for these two regions the schools in our study did not significantly differ from other schools that decided not to opt in. Yet, these are only two regions of the UK, the selection of schools was not representative of the UK school system. We would have more confidence in our results had the pandemic not interrupted the data collection. Alas, further research is needed to determine the impact of the intervention in exceedingly diverse areas such as London, or at the other extreme, ethnically homogeneous primarily rural areas such as certain parts of Cornwall.

Finally, it also remains an open question whether another topic could have engaged young people more. 'Drugs and the law', the topic of this intervention was hardly unique in its relevance to young people. Knife crime, cyber-bullying, and so on could also be worthy candidates and could have been even more effective in building trust. As with the current intervention, it is crucial to synthesise input both from education professionals and the police to design a lesson plan that is not only engaging and effective but also easy to deliver for the

participating officers. Further lesson plans need to be designed and trialled to assess which one is best to build trust with young people.

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References

- Bradford, Ben. 2014. "Policing and Social Identity: Procedural Justice, Inclusion and Cooperation between Police and Public." *Policing and Society* 24(1):22–43.
- Bradford, Ben, and Yesberg, J. (2019). *Police in schools - An evidence review*. UCL Jill Dando Institute for Security and Crime Science.
- Colin Bolger, P., and Glenn D. Walters. 2019. "The Relationship between Police Procedural Justice, Police Legitimacy, and People's Willingness to Cooperate with Law Enforcement: A Meta-Analysis." *Journal of Criminal Justice* 60(January):93–99.
- Epp, Charles R., Steven Maynard-Moody, and Donald P. Haider-Markel. 2014. *Pulled Over: How Police Stops Define Race and Citizenship*. University of Chicago Press.
- Fine, Adam, and Elizabeth Cauffman. 2015. "Race and Justice System Attitude Formation During the Transition to Adulthood." *Journal of Developmental and Life-Course Criminology* 1(4):325–49.
- Harkin, D. 2015. "Police Legitimacy, Ideology and Qualitative Methods: A Critique of Procedural Justice Theory." *Criminology and Criminal Justice* 1829.
- Huq, A. Z. Aziz H., J. Jackson, and R. J. Trinkler. 2017. "Legitimizing Practices: Revisiting the Predicates of Police Legitimacy." *British Journal of Criminology* (57):1101–22.
- Jackson, Jonathan. 2018. "Norms, Normativity, and the Legitimacy of Justice Institutions: International Perspectives." *Annual Review of Law and Social Sciences* (14):145–165.
- Jackson, Jonathan, Ben Bradford, Mike Hough, Andy Myhill, Paul Quinton, and Tom R. Tyler. 2012. "Why Do People Comply with the Law?" *British Journal of Criminology* 52(6):1051–71.
- Jackson, Jonathan, Ben Bradford, Elizabeth Stanko, and Katrin Hohl. 2013. *Just Authority? - Trust in the Police in England and Wales*. Routledge.
- Jackson, Jonathan, and Krisztián Pósch. 2019. "New Directions of Research in Fairness and Legal Authority - A Focus on Causal Mechanisms." Pp. 181–212 in *Social psychology and justice - Frontiers of social psychology*, edited by A. E. Lind. Abingdon: Routledge.
- Justice, Benjamin, and Tracey L. Meares. 2014. "How the Criminal Justice System Educates Citizens." *Annals of the American Academy of Political and Social Science* 651(1):159–77.
- Lind, Allan, and Tom Tyler. 1988. *The Social Psychology of Procedural Justice*. Springer.
- McCluskey, John. D. 2003. *Police Requests for Compliance - Coercive and Procedurally Just Tactics*. New York: LFB Scholarly Publishing.
- McLean, Kyle, Scott E. Wolfe, and Travis C. Pratt. 2019. "Legitimacy and the Life Course: An Age-Graded Examination of Changes in Legitimacy Attitudes over Time." *Journal of Research in Crime and Delinquency* 56(1):42–83.
- Meares, Tracey. 2017. "Policing and Procedural Justice: Shaping Citizens' Identities to Increase Democratic Participation." *Northwestern University Law Review* 111(6):1525–35.

- Murphy, Kristina. 2015. "Does Procedural Justice Matter to Youth? Comparing Adults' and Youths' Willingness to Collaborate with Police." *Policing and Society* 25(1):53–76.
- Nivette, Amy E., Manuel Eisner, Tina Malti, and Denis Ribeaud. 2015. "The Social and Developmental Antecedents of Legal Cynicism." *Journal of Research in Crime and Delinquency* 52(2):270–98.
- Pósch, Krisztián, Jonathan Jackson, Ben Bradford, and Sarah Macqueen. 2020. "'Truly Free Consent'? Clarifying the Nature of Police Legitimacy Using Causal Mediation Analysis." *Journal of Experimental Criminology*. <https://doi.org/10.1007/s11292-020-09426-x>
- President's Task Force on 21st Century Policing (2015). https://cops.usdoj.gov/pdf/taskforce/taskforce_finalreport.pdf
- Sunshine, Jason, and Tom R. Tyler. 2003. "The Role of Procedural Justice and Legitimacy in Shaping Public Support for Policing." *Law and Society Review* 37(3):513–48.
- Trinkner, Rick. 2019. "Clarifying the Contours of the Police Legitimacy Measurement Debate: A Response to Cao and Graham." *Asian Journal of Criminology* 14(4):309–35.
- Trinkner, Rick, Ellen S. Cohn, 2014. "Putting the ' Social ' Back in Legal Socialization : Procedural Justice , Legitimacy , and Cynicism in Legal and Nonlegal Authorities." *Law and Human Behavior* (6):602-617.
- Trinkner, Rick, Jonathan Jackson, and Tom R. Tyler. 2018. "Bounded Authority: Expanding 'Appropriate' Police Behavior Beyond Procedural Justice." *Law and Human Behavior* 42(3):280–93.
- Tyler, Phillip Atiba Goff, and Robert J. MacCoun. 2015. "The Impact of Psychological Science on Policing in the United States: Procedural Justice, Legitimacy, and Effective Law Enforcement." *Psychological Science in the Public Interest* 16(3):75–109.
- Tyler, T., J. Fagan, and A. Geller. 2014. "Street Stops Police Legitimacy: Teachable Moments in Young Urban Men's Legal Socialization." *Journal of Empirical Legal Studies* 11(14):751–85.
- Tyler, T. R., and Y. J. Huo. 2002. *Trust in the Law - Encouraging Public Cooperation With the Police and the Courts*. New York: Russell Sage Foundation.
- Tyler, Tom R. 2006. *Why People Obey the Law*. Princeton: Princeton University Press.
- Tyler, Tom R. 2011. *Why People Cooperate*. Princeton University Press.
- Tyler, Tom R., and Steven L. Blader. 2003. "The Group Engagement Model: Procedural Justice, Social Identity, and Cooperative Behavior." *Personality and Social Psychology Review* 7(4):349–61.
- Tyler, Tom R., and Jonathan Jackson. 2013. "Future Challenges in the Study of Legitimacy and Criminal Justice." Pp. 83–104 in *Legitimacy and Criminal Justice - An International Exploration*, edited by J. Tankebe and A. Lieblich. Wiley.
- Tyler, Tom R., and Rick Trinkner. 2017. *Why Children Follow Rules: Legal Socialization and the Development of Legitimacy*. Oxford University Press.