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THE IMPACT OF PROCEDURAL JUSTICE TRAINING ON FIRST YEAR CONSTABLES' INTERACTIONS WITH CITIZENS: A RANDOMIZED CONTROLLED TRIAL

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ABSTRACT

Procedural justice (PJ) training for police has previously involved changing officer attitudes and behaviours by teaching officers about procedural justice, its benefits (Rosenbaum & Lawrence 2011; Skogan *et al.* 2015), the use of a procedural justice script during an interaction (Mazerolle *et al.* 2013), and by providing interpersonal skills training as a means of changing officer behaviour (Wheller *et al.* 2013). This research utilises a unique procedural justice knowledge and skills-based training programme designed to provide officers with information about the desirability of procedural justice combined with a skill set that enables officers to build a range of abilities for use in the practical application of procedural justice in the everyday operational environment. It is the first to examine the effectiveness of a procedural justice training programme under randomized controlled trial (RCT) conditions through real-time mentor officer observations.

In June 2016, 56 graduating police officers were matched into pairs with one from each pair randomly selected to undergo a day and a half training programme. Over the next eight weeks each of these 56 officers were rated in their use of procedural justice by their mentor training officer for each police-public interaction they conducted. Research data was obtained using three validated survey instruments with excellent response rates (>96%) and a purpose-designed electronic rating tool. The research findings confirmed that the training had a significant positive effect on two variables immediately after the intervention, though when measured eight weeks after the intervention the effect had decayed. These results were at the statistically significant level (p=0.005) with medium effect sizes. Analysis of the total number of interactions conducted also found that though there were no significant differences in how First Year Constables (FYC) dealt with different types of incidents, when aggregated the intervention FYC group acted in a more procedurally just way than the control group. This finding is important as it relates to changes in behaviour in the experimental group rather than attitudinal changes.

Overall, police who undertook the training were more procedurally just than those who didn't. The research argues for the introduction of this programme to police recruit training to embed procedural justice as a philosophy and business as usual.

Key words: Procedural justice (PJ), Recruit training, Police, Policing, Legitimacy, randomized controlled trial (RCT).

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Policing at its core, relies heavily on communication, especially between officers and the people of the community they serve. This research was driven by a passion to improve police-community relations using procedural justice. Developing and implementing a training programme can be a complex task. I would like to thank Alistair Fildes, Josephine Wheatley, Peter Heck and Tony Montgomery-Clarke for their expertise, professionalism, patience, assistance and support in designing the procedural justice training programme used for this RCT.

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CHAPTER ONE: INTRODUCTION

The President's Task Force (2015, p.1) urged law enforcement agencies to adopt procedural justice as the guiding principle for external policies and practices to guide their interactions with the citizens they serve. This research reports on the findings of the first known RCT of a procedural justice training programme designed to improve police officers' understanding and use of procedural justice. The central research questions of this thesis are: "does procedural justice training improve First Year Constables' attitudes towards members of the community during interactions?" and "does procedural justice training improve interactions between First Year Constables and members of the community?".

This chapter begins with a brief discussion of the relationship between procedural justice and legitimacy, then presents the justification for this RCT. This is followed by a summary of the procedural justice training programme delivered to recruits, and an overview of the additional chapters in this thesis.

1.1 Procedural justice and legitimacy

There is a plethora of research that links procedural justice to improved legitimacy (Tyler 2004; Bradford *et al.* 2014; Hough *et al.* 2010; Jackson & Bradford 2010; Mazerolle *et al.* 2013), and the use of procedural justice as a way of improving the legitimacy of policing is increasing globally (Hough *et al.* 2016). Numerous calls have been made for police departments to become more procedurally just (President's Taskforce 2015; Murphy 2014) to enhance legitimacy and improve public trust, cooperation and compliance (Murphy & Cherney 2010; Tyler 2004; Tyler *et al.* 2014). Sunshine and Tyler (2003), and Mazerolle *et al.* (2010), have both argued that a person will feel an obligation to obey and defer to an authority when they perceive that authority (i.e. police) to be legitimate, highlighting the link between legitimacy and compliance. It has been called for police departments to adopt more procedurally just practices to improve police-citizen relationships (Department of Justice

2015, p.1) something Kochel *et al.* (2013) have described as being essential to democratic governance.

1.2 Justification for the research

As mentioned, there has been much research on procedural justice and its links to legitimacy and compliance (Sunshine & Tyler 2003; Tyler 2004; Mazerolle *et al.* 2009; Tyler *et al.* 2014; Mazerolle *et al.* 2012). Little however can be found on how departments should train officers to understand then apply procedural justice in everyday policing interactions. The literature shows the training packages applied in this research have included several differing approaches; from procedural justice scripts for traffic interceptions (Mazerolle *et al.* 2013; MacQueen & Bradford, 2015), to explaining procedural justice and its benefits (Skogan *et al.* 2015; Shaefer & Hughes 2016), to learning interpersonal skills for use with victims (Schuck & Rosenbaum 2011; Wheller *et al.* 2013). None of these previous studies have sought to train police officers in the broader everyday application of procedural justice. This research will help fill that gap in the literature as well as (Schuck & Rosenbaum 2011) adding to the literature on police recruit training, something Skogan and Frydl (2004) have called for.

This research is unique not only in the design of a knowledge and skills-based procedural justice training programme specifically for (FYCs), but also as it is the first-time officers have been rated in real-time by mentor training officers, known as field training officers within the QPS, on their use of procedural justice during police-public interactions. The experimental design provides an opportunity to assess the application of the knowledge and skills during the police/public interactions, rather than just examining the impact of a procedural justice script such as in QCET (Mazerolle *et al.* 2012) and ScotCET (MacQueen & Bradford 2015). This research will show how officers' application of procedural justice in their day to day activities can be increased with a suitable training programme.

The research questions for this RCT are:

Does procedural justice training improve First Year Constables' attitudes towards members of the community during interactions?; and

Does procedural justice training improve interactions between First Year Constables and members of the community?.

1.3 The Procedural Justice Training Programme

The training programme was designed specifically for the Queensland Police Service (QPS) and aimed to equip FYCs with the knowledge and skills to employ procedurally just practices when dealing with the public. During their recruit training FYCs were provided training on the principles of procedural justice and its impacts on police-public interactions, followed by training in a set of enhanced communication and interpersonal skills related to the demonstration of procedural justice practices. Finally, as recruits, the FYCs practiced the application of these skills in a series of role-plays that demonstrated the use of the procedural justice knowledge and communication skills from the lessons.

1.4 Outline of Thesis

The following chapters complete this thesis: Chapter 2 reviews the existing literature on procedural justice, its links to legitimacy by defining procedural justice and police legitimacy, and examines previous procedural justice/police research. It also examines the links between legitimacy and compliance, then reviews the literature surrounding police training in procedural justice and interpersonal skills. It also considers the literature surrounding procedural justice and victims, witnesses and suspects.

Chapter 3 details the methodology used to evaluate the training employed in this RCT and the experimental design is explained. The research participants are described, followed by the data collection instruments and methods. Next, the constructs that were

utilised to measure participant values, attitudes, beliefs and application of procedurally justice during interactions with the public are summarised. The chapter concludes with detail of the analysis plan.

Chapter 4 provides the results of the surveys at baseline, post-intervention and postmentoring as well as the Field Training Officer (FTO) ratings instrument. Chapter 5 considers the eleven key findings of the RCT and draws conclusions. It provides suggestions for policy changes and the potential implementation of the procedural justice training programme.

CHAPTER TWO: LITERATURE REVIEW

In the 21st century, one of the greatest challenges facing the police is how to maintain order in society without jeopardising the public's trust and confidence (Rosenbaum & Lawrence 2011). This has led to an increase in attention by police agencies to the importance of procedural justice and how it can help in improving police-citizen relations. Kochel et al. (2013) assert that public cooperation with police and a willingness to comply with the law are essential for democratic governance. Police agencies in the United States of America are currently seeing the consequences of losing that trust as citizens protest the number of young black males shot and killed by white police officers. This has even led to police officers being the target of 'revenge killings' in Texas and Louisiana (Forsyth & Gorman 2016). The recently completed President's Taskforce on 21st Century policing has concluded that police departments in the USA need to promote trust and ensure legitimacy through procedural justice, transparency, accountability and honesty (Department of Justice 2015, p.1). This statement is just as applicable to Australian police services as we have a similar policing 'by consent' model to the USA, and given recent criticisms of various police departments' lack of application of procedural justice principles (Queensland Government 2013; Commonwealth of Australia 2014; Queensland Government 2015a).

This chapter reviews the literature relevant to this research study. Firstly, it will define procedural justice and police legitimacy and examine previous procedural justice research in the context of policing. It will discuss links between legitimacy and compliance, then review the literature surrounding police training in procedural justice and interpersonal skills. The chapter will conclude with an examination of the literature surrounding procedural justice in the context of victims, witnesses and suspects.

2.1 Procedural Justice

Procedural justice has been defined by Murphy and others as "the perceived fairness of the procedures involved in decision-making and the perceived treatment one receives from a decision-maker (i.e. an authority)" (2014, p.407). In other words, whether a police action is deemed to be procedurally fair depends on the perceptions of the person who is subject to that action. By being procedurally fair in the exercise of their duties, it is argued that the police can "strengthen the social bonds between individuals and authorities" (Tyler *et al.* 2014, p.4012). Tyler (2004) further asserts that improving the perceived fairness and respectfulness of the police-public encounter is the best way to establish police legitimacy and also that procedural fairness is a more important factor in establishing legitimacy than effective crime control.

Procedurally just treatment by police has been described by the President's Taskforce (2015) as a foundational necessity in building public trust. Procedural justice is displayed via the presence of four components or pillars of police behaviour. First, police are perceived as being fair and neutral and that they treat all persons, regardless of their status, with dignity and respect (Sergeant *et al.* 2016). Second, police should be seen to have trustworthy motives behind their decision-making (Sergeant *et al.* 2016; Goodman-Delahunty 2010). Third, decisions should be unbiased and made with neutrality (Tyler 2006; Goodman-Delahunty 2010). The fourth pillar of procedural justice requires police to ensure citizens have a voice in decision-making and can 'have their say' (Blader & Tyler 2003; Tyler 2006; Goodman-Delahunty 2010; Mazerolle *et al.* 2012; Higginson & Mazerolle 2014). If all four pillars are present during a police-citizen interaction, then it can be described as procedurally just.

2.2 Police Legitimacy

Police legitimacy depends upon how the citizenry perceives the police department (and often the government) and whether that opinion engenders compliance. Tyler and Huo (2002, p.xiv) have stated that legitimacy is *"the belief that legal authorities are entitled to be obeyed and that the individual ought to defer to their judgment"*. It has also been argued that if a person perceives an authority (i.e. police) to be legitimate they feel they should obey and defer to that authority (Sunshine & Tyler 2003; Mazerolle *et al.* 2009).

The positive link between procedural justice and police legitimacy has been the subject of research for some time now (Bradford *et al.* 2014; Hough *et al.* 2010; Jackson & Bradford 2010; Mazerolle *et al.* 2013). It has been stated that when people perceive they have been fairly treated by police, legitimacy is enhanced (Bradford *et al.* 2014; Jackson & Bradford 2010; Sunshine & Tyler 2003). Tyler (1990) observed that critical to the success of policing was a legitimate and procedurally just service. Jackson and Bradford (2010) found that police could reinforce their 'social connection with citizens' by demonstrating trustworthiness and thus encourage more active civic engagement, such as reporting crime and suspicious behaviour, to being prepared to be a witness. This stance is supported by Murphy *et al.* (2008) who argue that people who view police as being legitimate are more likely to assist police to control crime. Myhill and Quinton (2011) found that police who employ procedurally just practices such as fairness are likely to improve measures of legitimacy and trust.

Unfortunately, this legitimacy can be easily eroded by a negative interaction with police (Bradford *et al.* 2014; Brown & Benedict 2002; Hinds 2008; Skogan 2006; Tuch & Weitzer 1997). In fact, a negative interaction can have between four and fourteen times the impact of a positive interaction (Skogan 2006). One instance of fair treatment however will do little to increase police legitimacy by itself. The constant, ongoing use of procedural

justice however may create a foundation upon which greater legitimacy can be built (Mazerolle *et al.* 2013; Myhill & Quinton 2011).

2.3 Compliance

The relationship between legitimacy and compliance has also been the subject of research (Sunshine & Tyler 2003; Tyler 1990; Tyler & Fagan 2008; Tyler & Folger 1980; Tyler & Huo 2002). This link can be explained via the Group Value Model (Lind & Tyler 1988) which asserts that behaviours can be shaped by ones belonging to a group. They posit that the more someone feels part of a group, the more likely they are to comply with group rules and behaviours. It has been found that use of procedural justice can enhance a person's feelings of self-worth and belonging which leads to greater compliance (Sergeant *et al.* 2016; Blader & Tyler 2009; De Cremer & Tyler 2005; Tyler & Blader 2000; Tyler & Degoey 1995) and a perceived duty to obey (Bradford *et al.* 2014).

Increased compliance resulting from legitimacy was also discussed by Matrofski *et al.* (1996) who found in their study of 346 police requests for order in Virginia, USA, that legitimating factors had a strong influence over citizen compliance. McCluskey (2003) agreed, finding that the use of procedurally just tactics resulted in greater compliance than mere commands to obey a law. In their study of New Yorkers, Sunshine and Tyler (2003) also found that legitimacy was a powerful influencer on the public's reactions to police and that perceived fairness of the police procedures was key to establishing legitimacy.

2.4 Police Training

It is apparent then that police agencies benefit from and should engage in procedurally just practices, and training officers in procedural justice could be the answer to achieving this. Unfortunately, there is a small set of studies on procedural justice training for police (Schuck & Rosenbaum 2011; Mazerolle *et al.* 2013; Wheller *et al.* 2013; Skogan *et al.* 2015) to

indicate its efficacy. There is a call for greater research and observation into the impact this type of training has on an officer's interpersonal skills and interactions with the public in real encounters (Skogan & Frydl 2004; Dai *et al.* 2011), and on how principles of procedural justice can be incorporated into routine police interactions (Skogan 2015, p.320). Haberfield (2002) asserts that police training is one area where police departments have an opportunity to strengthen officers' interpersonal skills during encounters. Such training provides an understanding of procedural justice and those interpersonal skills which assist officers in the practical application of procedural justice.

If positive changes are to occur in police behaviour it should start at recruit training. Rosenbaum and Lawrence (2011) found that there is a genuine opportunity to grow a new police culture that endorses key values and principles and seeks to solve interpersonal problems in a way that reinforces this orientation. McDermott and Hulse-Killacky (2012) agree, advocating the need for police agencies to conduct more interpersonal skills training to better interact with the community and build stronger partnerships.

Constable and Smith (2015) identify that the most significant and formative arena for police cultural traits is the training period. Haarr (2001) and Heslop (2011) have both found that basic recruit training has a positive impact to the attitudes of officers towards community policing and police-public relations activities, although there is some decay once officers commence operational duties and obtain greater exposure to organisational culture. The recent unpublished work of Platz (2016) demonstrates the positive effects training can have on police recruit attitudes and behaviours, although further work is required to determine the longevity of those impacts. The delivery of this intervention, during initial training, should allow recruits the time to learn and incorporate these skills before they enter the operational environment. Previous attempts at procedural justice training for police have sought to change officer attitudes and behaviours in several different ways: by teaching officers about procedural justice and its benefits (Rosenbaum & Lawrence 2011; Skogan *et al.* 2015); by using short scripts in specific types of routinized police-public interactions such as roadside breath testing (Mazerolle *et al.* 2012; MacQueen & Bradford 2015); or by providing interpersonal skills training as a means of changing officer behaviour (Wheller *et al.* 2013);

The results have been varied and in some cases contradictory such as the two RCTs of procedural justice scripts at roadside breath tests (Mazerolle *et al.* 2012; MacQueen & Bradford 2015), where the positive outcomes reported in the QCET backfired in the replication ScotCET. The training undertaken in this research differs from these by providing officers with both interpersonal skills like the study by Wheller *et al.* (2013), where interpersonal skills and scenario-based training were first used as a compliment to practical procedural justice training. This is delivered in theory and practical scenario based training, something not seen in the literature to date. Changes in attitudes and beliefs will be measured by a survey instrument, delivered at 3 distinct points during the RCT — baseline, post-intervention and then post-mentoring, approximately 8 weeks after participants have been mentored by their FTO. Differences in behaviour between experimental and control FYCs will be measured via the FTO rating instrument.

McDermott and Hulse-Killacky (2012) posit that facilitators who deliver recruit training on interpersonal skills must be able to observe and evaluate the officers demonstrating the skills. The scenario based training in this intervention program includes 'role-playing' various scenarios under the supervision of facilitators allowing for this to occur. In the role-plays, recruits not only played FYCs but also took on the roles of victims of crime and suspects to provide a 'view from the other side' of the interactions. Feedback and reflection was provided after each session, strengthening the lessons. Brinkerhoff (2005) contends that the performance of people who have received training should be studied (observations of in field or operational performance) rather than the effect of the training delivered (changes in attitudes). This is accomplished by each FTO scoring the officers' use of procedural justice on an electronic rating instrument immediately after observation in reallife interactions.

As previously stated, the intervention provides First Year Constables (FYCs) with a suite of interpersonal skills based on procedurally just principles. This format has provided positive outcomes when compared against other research that utilized scripting or information about the benefits of procedural justice (Wheller *et al.* 2013). McDermott and Hulse-Killacky (2012) concluded that interpersonal skills training delivered at the academy removes barriers and leads to better police-public partnerships, one of the aims of this research.

The literature supports the type and delivery of training proposed in this experiment. This RCT will complement the work of Skogan and Frydl (2004), who argue there is a need for more research on police recruit training. Tyler (1990) has stated that a police recruit has the potential to assist in building a legitimate service to the community through this intervention, and it is hypothesized police recruits will enhance legitimacy by applying their newly acquired procedural justice training in police-public interactions.

The decision to conduct training on recruits whilst they are at the academy is also supported in the literature which identifies that period as ideal to commence training in 'moral' aspects of policing (Sherman 1982). Haarr (2001) asserts that basic recruit training has a positive impact on the attitudes of officers towards community policing and police public relations activities, although there is some decay once officers commence operational duties and obtain greater exposure to organisational culture (see also Sherman 1980; Ford 2003; White & Escobar 2008). Heslop (2011), in a study of British police recruits, found training had positive impacts on police attitudes to the public although, like Haarr's study, the impacts diminished over time once recruits commenced operational duties. The link between procedurally just activities and legitimacy is now well known and clearly establishes that one of the most important foundations for establishing legitimacy is a police department exercising procedurally just practices (Mazerolle *et al.* 2013; Murphy *et al.* 2008; Tyler & Jackson 2013).

2.5 Victims, Witnesses and Suspects

This study will also compare the police-public interactions of those police officers who received the training (experimental) with those who did not (control) to ascertain if their use of procedural justice differs. It will examine variances between victims, witnesses or offenders/suspects. This will be complimentary to the research of Matrofski *et al.* (2016) who found, via direct observation, that officers were more likely to utilize procedural justice when dealing with victims or helpless people than with suspects and witnesses.

Murphy and Barkworth (2013) in their survey study of Australian victims' willingness to report incidents to police, found that procedurally just actions were more important than effectiveness in the case of more 'personal crimes' (such as sexual assault, burglary and vandalism) whilst police effectiveness was crucial in determining satisfaction and willingness to report property crimes (such as vehicle theft) (pp.13-17). Whilst procedural justice clearly impacts on some victims purported willingness to report crime (Kochel *et al.* 2013) it is less important to other victims.

There is also evidence that procedurally just practices adopted when dealing with victims helps address negative impacts resulting from the crime (Elliott *et al.* 2013). It was found that it was important for victims to feel validated by attending officers *"as victims viewed that as an indication of their value in society"* (Elliott *et al.* 2013). This is supportive of the Group Value and Group Engagement models' explanation (Lind & Tyler 1988; Tyler

& Blader 2003) which asserts people feel a sense of societal membership when police, as representatives of the state and society's norms, use procedurally fair practices during interactions with them (Murphy & Barkworth 2013). Criticism of the QPS (Queensland Government 2013; Commonwealth of Australia 2014; Queensland Government 2015a) could be reduced by adopting greater use of procedural justice when dealing with victims.

The challenge then is to provide a way for more police departments to accept and use procedurally just practices as "business as usual". The training programme designed for and adopted in this research aimed to do just that. The present research will be the first to examine the impact of procedural justice training experimentally both in terms of officer attitudes and the practical application of procedural justice in real-life interactions. This research hypothesises that police recruits who receive the training will employ procedural justice in police-public interactions more often than those who don't.

CHAPTER THREE: METHODS

In this chapter the experimental design is explained. Firstly, the research participants are described and the training programme outlined. This is followed by a description of the survey instruments. Other data collection methods are then outlined, and the constructs that were utilised to measure participant values, attitudes, beliefs and application of procedurally just practices during interactions with the public are summarised. Finally, the analysis plan and statistical power of the RCT are reviewed. The central research questions of this thesis are: "does procedural justice training improve First Year Constables' attitudes towards members of the community during interactions?" and "does procedural justice training improve interactions between First Year Constables and members of the community?".

3.1 Experimental Design

The Maryland Scientific Methods Scale (Sherman *et al.* 1998), is a 5-point scale that assesses the robustness of a study. An evaluation study that compares a before and after treatment group with a control group and identifies some correlation would score a level one on the Maryland Scale. There would be no randomization into treatment or control group in a level one study. Level five is the highest level in the scale and is reserved for studies that utilize random selection of treatment and control groups, such as an RCT. Level five studies have strong internal validity and, if designed correctly, provide the best chance to identify any causal links (Sherman *et al.* 1998). This research was conducted as an RCT.

RCTs are the most reliable way of determining whether an intervention (or treatment) works or does not (Weisburd 2010) and are also able to determine whether that intervention harms, helps or has no impact on a group (Hagan 2008). Properly designed RCTs are more successful at establishing casual inferences and links than other types of research design (Sherman *et al.* 1998) and are comprised of multiple comparable units which are subject to random assignment, before and after comparison and control groups (Sherman *et al.* 2002).

The randomization process accounts for differences in the individuals ensuring equitable distribution of recruits into both experimental groups (Experimental) and control groups (Control) such that the two groups are considered equal in all observed and unobserved characteristics (Weisburd 2010) prior to the intervention being administered. This allows for any observed changes to be inferred to be a result of the treatment/intervention applied to the experimental group (Weisburd 2010). The RCT design displays strong internal validity and is considered the best way of establishing causal effect (Sherman *et al.* 1998).

3.2 The Procedural Justice Training Programme

The aim of the procedural justice training programme (the intervention) was to furnish recruits with the knowledge and skills to employ procedurally just practices when dealing with a member of the public. There were three training objectives utilised to achieve this. Firstly, recruits in the experimental group were trained in the principles of procedural justice and its evidenced effects on police-public interactions. Next, those recruits were trained in a set of enhanced communication and interpersonal skills related to the demonstration of procedural justice practices. Thirdly, they participated in a series of police-public role-plays that provided practice in applying procedural justice knowledge and communication skills from the lessons. The training programme was designed specifically for this RCT by a collaboration of people including QPS education and training designers, police negotiators and an academic from Griffith University, Brisbane. It should be noted that all recruits in both the experimental and control groups had previously received the standard recruit communications training as part of the normal training syllabus.

The training materials consists of three artefacts. First, the lesson plan is the core text from which trainers deliver the material. The lesson plan contains information to deliver to recruits and instructions for class activities. Second, PowerPoint slides contain key messages to be delivered to recruits. Third, the recruit workbook contains classroom exercises and summaries of the training material. Six facilitators received a day's training in the training programme, delivered by the training designer and members of the QPS police negotiator team.

The experimental group received the procedural justice training programme over 1½ days during which time the control group received other unrelated training. The recruits in Control were allocated information visits to specialist police tactical groups and a local courthouse. Of the experimental group, 27 recruits attended both days of the training. One recruit did not attend as it was anticipated they would not be graduating and would therefore not be eligible for the evaluation. One additional recruit did not graduate with the intake and was ineligible to participate in the remainder of the RCT. This meant a final total of 26 recruits were allocated to the experimental group.

The experimental group was taught as a single class to ensure they received identical messages and material. Prior to participating in training, all recruits were informed of their allocation to each group and were given the opportunity to decline to be part of the study. Neither group were aware of whether they were the control or experimental group at the time the training was delivered. To limit cross-contamination, experimental group recruits were told to not discuss the training programme with recruits outside of the group. Recruits could take the workbooks with them once the course was completed.

The training programme was delivered in the penultimate week before graduation. The first day consisted of a series of lectures, classroom discussions and exercises. The following half day was used to practice the procedural justice skills in a series of role-plays. The facilitators that had received training delivered the training lessons and provided verbal feedback during the role-plays.

3.3 Randomization

Prior to randomization, the participants in this RCT were matched into pairs based on the parameters of posted locations (metropolitan with metropolitan, rural with rural), gender, academic results and sex. One recruit in each of the matched pairs was then randomly assigned by computer to either Experimental (receive additional procedural justice training, n=28) or Control (does not receive procedural justice training, n=28). Block randomization takes advantage of the prior knowledge held about the distribution of units (recruits) to increase the statistical power of an experiment which suffers from a small sample size (in this case n=56) and to maximize the equivalence of Experimental and Control allowing for better like to like comparisons and a reduction in variance (Ariel & Farrington 2012).

The demographics of Experimental and Control after randomization were determined from a number of demographic questions asked in the baseline survey.

Age: Recruits were aged between 20 to 52 years (M=32.13, SD=7.70). No significant difference in average ages between Experimental (M=32.92, SD=8.03) and Control (M=31.37, SD=7.44, t(51)=-0.73, p=0.468).

Gender: The sample comprised 38 male and 18 female recruits, with equal numbers of each gender in Experimental and Control (i.e. 19 males and 9 females in each group).

Education: Regarding their highest educational achievement, 10 recruits indicated they had completed some type of university or college degree (5 Experimental, 5 Control), 18 had completed a trade or technical certificate (9 Experimental, 9 Control), 21 had completed senior high school (12 Experimental, 9 Control), 6 had completed junior high school (2 Experimental, 4 Control), and 1 recruit declined to respond. There was no association between educational achievement and Experimental ($\chi^2(4)=2.19$, p=0.701).

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3.4 The Research Participants

The QPS employs more than 11,800 police officers and 2,700 civilian members (QPS 2016, p.152). The QPS provides initial police recruit training at two academies, located in Oxley and Townsville. The Oxley Academy, in suburban Brisbane, trains between 300 and 600 hundred recruits annually and was where this RCT was conducted.

New recruits are accepted and trained during various intakes which are spaced throughout the year. Intakes are usually comprised of 2 to 4 squads, each containing 21 individual police recruits. The exact number of each intake is determined by any proposed increases of police numbers approved by government and subject to service-wide attrition rates. Approximately 350 recruits were planned to be trained in the calendar year 2016.

Upon commencing at the academy, recruits undertake a 26-week training course designed to develop competent, ethical, efficient and effective FYCs capable of performing general duties police work under supervision (QPS 2016A). After successfully graduating from the academy and being inducted as an FYC, the constable begins a 12-month field-training programme which includes an 8-week 'mentor period' under the exclusive guidance of one or two FTOs, who assess constable performance and guide them through a series of milestones and competencies.

3.4.1 Recruits/First Year Constables

In January 2016, 63 police recruits commenced their training at the QPS Academy, Oxley. This intake was divided into three squads of 21 recruits each. A total of 56 recruits progressed to the week of 13 June 2016 and were eligible to participate in the research. All recruits then participated in a pre-intervention survey (Appendix 1) which served as baseline data. Each recruit was then matched into a pair with another recruit forming 28 pairs with one from each pair then randomly assigned to Experimental or Control as discussed above.

On 16 and 17 June 2016, Experimental completed the procedural justice training programme one week prior to their graduation and induction as FYCs. Both Experimental and Control then completed the first post-intervention survey (Appendix 1). On Thursday 23 June 2016, the recruits graduated and commenced the next phase of their training as FYC undertaking operational general duties policing with their mentor FTO. 52 FYC (n=26 Experimental, n=26 Control) completed the second post-intervention survey (Appendix 1) approximately 8½ weeks later after their mentoring period.

3.4.2 Mentor Field Training Officers

Upon graduation, every FYC is required to work with a mentor FTO for their initial eight weeks of duty. These FTO are specially trained officers who volunteered to assist in the training of new constables. As part of their duties they are required to ensure new FYCs successfully pass competencies and milestones during their training period. Ninety-four FTOs worked with and rated the participant FYCs in their use and application of procedurally just practices over the eight-week mentor period. This experiment was conducted over a ten-week period encompassing the final two weeks of academy training and the entire mentor period for a group of 56 QPS police recruits. Prior to mentoring the FYC, each FTO completed a short survey (Appendix 2) designed to baseline their views and attitudes regarding procedural justice.

In addition to their normal duties, the mentor FTO were also tasked with rating the FYC on their use of procedurally just practices during each interaction with a member of the public. The electronic rating tool (Appendix 3) used included a section where the FTO was required to classify the incident and person type for each interaction. Whilst it is preferable for each FYC to have the same FTO for the entire eight-week mentoring period this was not possible in 38 instances. In those cases, the FYC worked with two FTO for a period of four weeks each. This meant the total number of FTO eligible to participate in the research was

94. Of the 94 eligible FTO, 6 failed to complete the baseline survey leaving a sample of 88 FTOs (response rate =93.62%).

Prior to the RCT commencing every FTO participated in a 90-minute session that equipped them to properly assess their allocated FYC via the rating tool. All mentor FTO were briefed on; the conduct of the trial, their duties during the mentor period, the importance of the RCT to the QPS, the RCTs aims and objectives, the rating instrument, and the baseline survey they were being asked to complete. The importance of their participation was discussed, and administrative and resource support explained. This should assist to build Strang's (2012) 'Coalition of a common purpose' — a partnership between researcher and participants. The principal researcher or one other QPS member have conducted all sessions with the FTO to ensure consistency of training and messaging as discussed by Strang (2012).

3.5 Survey Method

Several instruments were used to collect data during this RCT. An initial baseline survey was administered to all participant FYCs, followed by surveys post-intervention and postmentoring (Appendix 1). These instruments were created by Dr Emma Antrobus, a lecturer in Criminology at the School of Social Science, University of Queensland (UQ). Dr Antrobus has participated in several RCTs examining legitimate policing (Platz 2016; Sergeant *et al.* 2016; Mazerolle *et al.* 2012). She has recently been involved in the survey development for an RCT examining an enhanced police response to residential burglaries, including better police-citizen interactions (Antrobus & Pilotto 2016).

The RCT also employed a survey undertaken by the mentor FTO (Appendix 2) which was designed to baseline their views and attitudes towards procedural justice, and an electronic FTO rating tool (Appendix 3) which scored participant FYC in their use of procedurally just practices. These instruments were also designed by Dr Antrobus. This RCT received approval from both the QPS and UQ Ethics Committees. To ensure anonymity, recruits were allocated their own unique identification number. This number was also used when FYC ratings were submitted. Whilst it is not possible to link any of the survey results to an individual FYC, the unique identification facilitated tracking of results between all three surveys and their individual FTO observations. Mentor FTOs were also provided with a unique identification number which allowed their baseline survey data to be linked with the observational ratings of their FYC. Qualtrics, an online survey software product, was used to manage the uploaded surveys and rating tools.

3.6 Survey and Rating Tool Constructs

The surveys and the FTO rating tool were designed to measure several potential outcomes of the training by identifying FYCs' views, attitudes towards and use of procedural justice at three distinct periods during the RCT, the baseline, post-intervention and post-mentor periods. The ten constructs measured by the survey were:

- 'that procedurally just treatment of the public was effective (Perceived PJ Effectiveness);
- 'the QPS use procedurally just practices' (PJ Police);
- _
- Police Legitimacy;
- the effectiveness of the QPS (Police Effectiveness);
- public cooperation with police (Cooperation);
- self-assessment of procedural justice skills and practices (PJ Interaction);
- self-assessed communication skills (Communication Skills);
- Citizen Focus;
- Affective Empathy;
- Cognitive Empathy.

Each individual construct was measured by a series of questions, some of which were reverse-coded, and utilised a 7-point scale ranging from strongly disagree to strongly agree.

The FTO rating tool commenced with classifying questions about the interaction which enabled researchers to identify both the type of interaction (street check, traffic, domestic abuse etc.) and the type of person being spoken with (witness, victim, suspect, traffic offender etc.). It then asked the mentor FTO to rate the participant FYC in their use of four procedurally just practices: neutrality, listening/voice, impartiality/fairness and respect. A 7-point scale was used to rate the constructs of neutrality, impartiality/fairness and respect whilst listening/voice was rated on an 8-point scale ranging from zero to eight. This was to account for any member of the public who refused to talk with the officers.

It is important to address issues of reliability and validity when designing research (Neuman 2011). Reliability, in the context of this research, means that the instrument or survey measuring something does so on a consistent, dependable basis (Neuman 2011). Construct validity is the extent to which an instrument or question measures what it was designed to measure (Hagan 2008; Neuman 2011). Although reliability and validity are not universally dependent on each other, an instrument cannot be valid unless it measures reliably (Nunnally & Bernstein 1994). One way of determining whether all items in an instrument measure the same construct is to use Cronbach's alpha (α) (Cronbach 1951). Cronbach's α affords a measure of internal consistency for tests and scales. The surveys in this research test a variety of constructs so the Cronbach's α scale was applied to and measured each series of questions. Alpha scores range from the lowest reliability coefficient of zero to the highest of 1.00. It is accepted by researchers that any value of Cronbach's α score between 0.60 and 0.70 is acceptable with α scores between 0.70 and 0.95 regarded as good (Nunnally & Bernstein 1994). The survey questions analysed in this research were determined by Cronbach's α to be reliable.

3.7 Constructs

It was important in this RCT to establish baseline data for all recruits which could be used to recognize whether any impact the procedural justice training had on Experimental could be identified post-training. This was achieved via a survey which was designed to measure recruits' views and attitudes on several constructs. These constructs related to various concepts associated with procedural justice such as attitude towards the public, legitimacy, the use and effectiveness of procedural justice, empathy and fairness. Analysis of the baseline data indicated no significant differences between Experimental and Control prior to training on any of the constructs. Two post-intervention surveys were subsequently administered which measured the same constructs, initially immediately after the training and then after the FYCs eight-week mentor period. All constructs were measured across all three surveys. The analysis would examine whether there were any identifiable changes in the measures of Experimental and if those changes potentially resulted from the impact of the intervention. The ten constructs utilised are described in detail below.

3.7.1 PJ Interaction

This scale was developed to measure data from recruits about their own use of procedurally just practices. This scale consisted of five items from Bond *et al.*'s (2015) scale to measure officers' perceived use of procedural justice within interactions. An additional item (I try to do what is best for people) was added to incorporate an element of trustworthy motives into the measure. Responses were recorded on a 7-point Likert type scale from 1 (strongly disagree) to 7 (strongly agree). At baseline, the measure was found to have good internal consistency (Cronbach's $\alpha = 0.96$).

The participants were asked: "Please indicate how much you agree or disagree with the following statements":

- I treat people fairly.

- I listen to what people have to say before making decisions.
- I treat people with dignity and respect.
- I make decisions based on facts, not my personal opinions.
- I treat people the same, regardless of who they are.
- I try to do what is best for people.

All scales were created by taking the average score of the items within that scale. A higher score represents greater agreement that the individual adopts procedurally just practices during police-public interactions.

3.7.2 Communication Skills

The procedural justice training undertaken by recruits in Experimental included some enhanced communication skills that were designed to demonstrate the use of procedurally just practices. This scale measured a self-assessment of communication skill was adapted from a survey for a previous recruit study of police use of force to measure officers' perceptions of their own communication skills (Fildes 2015). The scale consisted of seven items and responses were recorded on a 7-point Likert type scale from 1 (strongly disagree) to 7 (strongly agree). At baseline, the measure was found to have good internal consistency (Cronbach's α =0.97).

The participants were asked: "Please indicate how much you agree or disagree with the following statements":

- I know how to talk with people.
- I have good communication skills.
- I feel confident when using my communication skills.
- I am good at reading other people's emotions.
- I know how to make someone comfortable.
- I know how to resolve conflict between people.

- I know how to use nonverbal cues to communicate my feelings to others.

All scales were created by taking the average score of the items within that scale. The higher the score the greater the rating the recruit placed on their communication skills.

3.7.3 PJ Police

As has been discussed previously, one of the most important foundations for establishing legitimacy is a police department that employs procedurally just practices (Mazerolle *et al.* 2013; Murphy *et al.* 2008; Tyler & Jackson 2013). This scale was designed to measure recruits' perceptions of the QPS and the organisation's use of procedurally just practices, and was adapted from the QCET (Mazerolle *et al.* 2012) to measure officers' general perceptions of police procedural justice. The scale consisted of four items and responses were recorded on a 7-point Likert type scale from 1 (strongly disagree) to 7 (strongly agree). At baseline, the measure was found to have good internal consistency (Cronbach's $\alpha = 0.92$).

The participants were asked: "In general the police in Queensland ... ":

- Make fair decisions.
- Listen to people before making decisions.
- Treat people with dignity and respect.
- Treat everyone equally.
- Provide a better service to richer people.

All scales were created by taking the average score of the items within that scale. The higher the score the more recruits believed the QPS generally utilized procedurally just practices.

3.7.4 Legitimacy

The scale for legitimacy was adapted from sources including Bond *et al.* (2015), Bradford *et al.* (2015), and Mazerolle *et al.* 's (2012) surveys to measure officers' general perceptions of police legitimacy in terms of moral alignment and obligation to obey. It has been argued

that if a person perceives an authority (i.e. police) to be legitimate they feel they should obey and defer to that authority (Sunshine & Tyler 2003; Mazerolle *et al.* 2010). The scale consisted of four items and responses were recorded on a 7-point Likert type scale from 1 (strongly disagree) to 7 (strongly agree). At baseline, the measure was found to have adequate internal consistency (Cronbach's $\alpha = 0.67$).

The participants were asked "*Please indicate how much you agree or disagree with the following statements. In my opinion*":

- People should do what the police tell them to do even if they disagree with their decisions.
- The police have the same sense of right and wrong as the community.
- The police stand up for values that are important for people in the community.
- Respect for police is an important value for people to have.

Again, all scales were created by taking the average score of the items within that scale.

3.7.5 Police Effectiveness

Murphy (2013) states that police effectiveness is as important to police legitimacy as their use of procedural justice. Further, the effectiveness of a police organisation can also lead to greater victim satisfaction regarding some crime types and increase a person's willingness to report a crime (Murphy & Barkworth 2014). This scale was adapted from items used in MacQueen and Bradford's (2014) survey to measure officers' general perceptions of police effectiveness. The scale consisted of six items and responses were recorded on a 7-point Likert type scale from 1 (strongly disagree) to 7 (strongly agree). At baseline, the measure was found to have good internal consistency (Cronbach's $\alpha = 0.95$).
The participants were asked "On the whole, how confident are you in the ability of police in Qld to":

- Prevent crime.
- Respond quickly to appropriate calls from the public.
- Deal with incidents as they occur.
- Solve crimes.
- Catch criminals.
- Keep people safe.

As indicated previously, all scales were created by taking the average score of the items within that scale and the higher the score, the better the result.

3.7.6 Cooperation

It is hypothesized in this research that suspect/offenders will cooperate with or provide more information to police if they are treated in a procedurally just manner than if not. It is also posited that the legitimacy of the police arising from their use of procedurally just practices in this research will lead to increased compliance analogous to the perceived duty to obey discussed by Bradford *et al.* (2014). This scale was adapted from items used in QCET (Mazerolle *et al.* 2012) to measure officers' general perceptions of the public's willingness to cooperate with police. The scale consisted of four items and responses were recorded on a 7-point Likert type scale from 1 (strongly disagree) to 7 (strongly agree). At baseline, the measure was found to have good internal consistency (Cronbach's $\alpha = 0.88$).

The participants were asked "In your experience, how likely do you think is it for people to...":

- Call police to report a crime.
- Help police to find someone suspected of committing a crime by providing them with information.

- Report dangerous or suspicious activities to police.
- Willingly assist police if asked.

All scales were created by taking the average score of the items within that scale. The higher the score, the greater the likelihood the recruits believe citizens will cooperate with police.

3.7.7 Citizen Focus

The scale for citizen focus was adapted from items used in ScotCET (Bradford *et al.* 2014) to measure attitudes towards the public and a service model of policing. The scale consisted of 3 items and responses were recorded on a 7-point Likert type scale from 1 (strongly disagree) to 7 (strongly agree). At baseline, the measure was found to have adequate internal consistency (Cronbach's $\alpha = 0.63$).

The participants were asked "Please indicate how much you agree or disagree with the following statements. In my opinion...":

- Some victims of crime are more deserving of a good service than others.
- It is a waste of time trying to help some members of the public.
- Some people do little to earn the respect of the police.

All scales were created by taking the average score of the items within that scale.

3.7.8 Perceived PJ Effectiveness

The benefits of using procedurally just procedures was demonstrated to the recruits in Experimental both in the classroom lectures as well as in the scenarios and role-plays. This scale was designed to measure the recruits' views as to whether procedurally just treatment of the public was effective. This scale was adapted from items used by Bond *et al.* (2015) to measure attitudes regarding the effectiveness of procedural justice in encounters with the public. The scale consisted of three items and responses were recorded on a 7-point Likert

type scale from 1 (strongly disagree) to 7 (strongly agree). At baseline, the measure was found to have adequate internal consistency (Cronbach's $\alpha = 0.67$).

The participants were asked "*Please indicate how much you agree or disagree with the following statements. In my opinion...*":

- If you let people vent their feelings first, you are more likely to get them to comply with your request.
- Treating angry members of the public with respect increases the community's confidence in the police service.
- Officers who are polite to criminal offenders are less likely to get hurt.

All scales were created by taking the average score of the items within that scale. A higher score represents greater agreement that procedurally just practices were effective.

3.7.9 Affective Empathy

The Macquarie Concise Dictionary defines empathy as an appreciative perception or understanding of the feeling(s) of a person (Delbridge & Bernard 2001). Rogers (1951) and Cohen and Strayer (1996) have also described empathy as being the ability of someone to understand the emotions of others and to share their feelings. Jolliffe and Farrington (2006) posit that empathy is comprised of both a cognitive process where you understand the emotions of another, as well as an affective capacity where you feel their emotions.

The intervention in this study has been designed to help increase an officer's empathy, something which Bottoms and Tankebe (2012) have stated can increase trust and confidence, building legitimacy in interactions between police and the community. Affective Empathy was measured using the Basic Empathy Scale in Adults (Carre *et al.* 2013). The Affective Empathy scale consisted of 11 items and responses were recorded on a 7-point

Likert type scale from 1 (strongly disagree) to 7 (strongly agree). At baseline, the measure was found to have adequate internal consistency (Cronbach's $\alpha = 0.73$).

The participants were asked "Please indicate how much you agree or disagree with the following statements".

- Other peoples' emotions don't affect me much.
- After being with a person who is sad about something, I usually feel sad.
- I get frightened when I watch characters in a good scary movie.
- I get caught up in other people's feelings easily.
- I don't become sad when I see other people crying.
- Other people's feelings don't bother me at all.
- I often become sad when watching sad things on TV or in films.
- Seeing a person who has been angered has no effect on my feelings.
- I tend to feel scared when I am with others who are afraid.
- I often get swept up in other people's feelings.
- Other peoples' unhappiness doesn't make me feel anything.

All scales were created by taking the average score of the items within that scale. A higher score for the measure represents greater affective empathy.

3.7.10 Cognitive Empathy

Cognitive empathy was also measured using Carre *et al.*'s Basic Empathy Scale in Adults (2013). The Cognitive Empathy scale consisted of nine items and responses were recorded on a 7-point Likert type scale from 1 (strongly disagree) to 7 (strongly agree). At baseline, the measure was found to have good internal consistency (Cronbach's $\alpha = 0.84$).

The participants were asked "Please indicate how much you agree or disagree with the following statements".

- I can understand others' happiness when they do well at something.
- I find it hard to know when other people are frightened.
- When someone is feeling 'down' I can usually understand how they feel.
- I can usually work out when other people are scared.
- I can often understand how people are feeling even before they tell me.
- I can usually work out when people are cheerful.
- I can usually realize quickly when a person is angry.
- I am not usually aware of other peoples' feelings.
- I have trouble figuring out when others are happy.

All scales were created by taking the average score of the items within that scale. A higher score for the measure represents greater cognitive empathy.

3.8 FTO Baseline Survey

As part of the information and training programme the mentor FTOs were invited to participate in a short survey designed to baseline their views and attitudes regarding procedural justice. The survey consisted of six items and responses were recorded on a 7-point Likert type scale from 1 (strongly disagree) to 7 (strongly agree). It consisted of three questions from the 'Citizen Focus' construct and three questions from the 'Procedural Justice Effectiveness' construct used in the recruit surveys. Scale reliability was adequate for each scale (Cronbach's α : Citizen Focus =0.69, PJ Effectiveness =0.67).

The participants were asked "*Please indicate how much you agree or disagree with the following statements: In my opinion*".

Citizen Focus

- Some victims of crime are more deserving of a good service than others.
- It is a waste of time trying to help some members of the public.

- Some people do little to earn the respect of the police.

Perceived PJ Effectiveness

- If you let people vent their feelings first, you are more likely to get them to comply with your request.
- Treating angry members of the public with respect increases the community's confidence in the police service.
- Officers who are polite to criminal offenders are less likely to get hurt.

All scales were created by taking the average score of the items within that scale.

Of the 56 FYCs, 38 had 2 FTOs during their mentor period, giving a total of 94 FTOs. 104 FTO surveys were originally received, however, 16 surveys were excluded because the FTO did not end up mentoring a FYC during the study period. Six FTOs who did mentor an FYC during the period failed to complete a survey and 4 of those 6, failed to submit any ratings for their FYCs during the mentor period. This left a sample of 88 FTOs (survey response rate =93.62%).

Contrasting the FTOs that mentored control FYCs to those who mentored Experimental FYCs, independent groups t tests revealed no significant differences between ratings on either scale (refer table 3.1).

	Citizen	Focus	PJ Effectiveness			
	Experiment	Control	Experiment	Contro		
N	45	43	45	43		
Mean	3.62	4.02	5.15	5.09		
SD	1.34	1.28	1.04	1.26		
t	1.44		-0.224			
df	86		86			
р	0.155		0.823			
d	-0.31		-0.05			

Table 3.1: Comparison of Citizen Focus and PJ Effectiveness for Experimental and Control

3.9 FTO Rating Tool

During their mentoring period, each FTO was requested to provide ratings of all encounters their FYC had with a member of the public as the primary responder. The ratings were designed to be quick and were to be completed immediately following each encounter, prior to any verbal feedback being given to the FYC. An electronic shortcut to the rating tool was installed on each FTOs' smart device (tablet or phone) to enable real-time rating and data collection.

The rating tool asked the mentor FTO to judge the FYC in respect to four items and responses were recorded on an individual Likert type scale. The four items with scales were:

How respectful was the FYC towards the member of the public? Responses were recorded on a 7-point Likert type scale from 1 (complete disrespect) to 7 (complete respect).

To what extent did the FYC appear completely **neutral** in his/her decisions in this situation? Responses were recorded on a 7-point Likert type scale from 1 (not at all) to 7 (to the greatest extent).

To what extent did the FYC appear to listen to the input of the member of the public? Responses were recorded on an 8-point Likert type scale from 0 (no information provided), 1 (FYC did not listen at all) to 7 (FYC listened to the greatest extent).

To what extent did the FYC demonstrate they were trying to do what was **best** for the member of the public (or the community)? Responses were recorded on a 7-point Likert type scale from 1 (not at all) to 7 (to the greatest extent).

Analysis of these results compared experimental and control FYCs' average ratings on each of the four items for encounters (by encounter or member of public type, where appropriate). Matched pairs *t*-tests were conducted for the procedural justice scale score,

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calculated by taking the average score across the four items. There was good internal consistency (Cronbach's $\alpha = 0.891$).

3.10 Analysis Plan

The main analysis for the data collected during this RCT will involve testing the difference between mean responses/ratings of those officers who received the procedural justice training (Experimental) versus those officers who did not receive the training (Control). The data from Experimental and Control surveys were analysed using matched pairs *t*-tests to determine whether there was any impact from the intervention to explore differences in FYCs' attitudes towards the use and importance of procedural justice in public encounters, policing and legitimacy. Matched-pairs *t*-tests were also conducted for the FTO ratings tool, to explore FTO ratings of the FYCs use of procedural justice in encounters with members of the public. Matched-pair *t*-tests allow the pairing of observations within these two groups on certain demographic attributes. In pairing, the variance that can be attributed to their same demographic attributes is 'cancelled out' when comparing their scores on the test. This permits detection of whether one group (Experimental) differed from the other (Control) because of the treatment and not from other unknown variables.

3.11 Response Rates for Survey

A large part of the RCT involves measuring FYC attitudes and views relating to procedural justice and as such it is important that participants respond to the survey instruments. Achieving a high response rate will improve confidence levels, provide for a larger sample size and boost statistical power (Baruch & Holtom 2008). This is important given the overall small sample size of 56 (n=28 each for Experimental and Control). Survey response rates are often quite low creating difficulties for researchers, especially when trying to determine if the responder group is actually representative (Neumann 2011). It is generally considered

by researchers that a response rate of 50% or less is poor whilst an excellent response rate is anything greater than 90% (Neuman 2011).

Four surveys were conducted during this research with excellent response rates, although they did diminish slightly as the RCT progressed. The overall response rate for the baseline survey was 100%. The response rate at follow-up 1 was 98% (96% Experimental and 100% Control) and at follow-up 2, 93% (93% Experimental and Control) giving an overall response rate throughout the RCT of 97%. The response rate for the baseline mentor FTO survey was 94%. These rates are much higher than the average of 48.4% achieved in most studies that Baruch and Holtom (2008) reported in their research and have provided a robust database for analysis and generates high statistical power. The response rates for all stages of the survey are shown in table 3.2.

Group	Baseline	Post- intervention 1	Post- intervention 2	Overall
Experimental n= 28	100%	96%	93%	96%
Control n= 28	100%	100%	93%	98%
Combined response rate n= 56	100%	98%	93%	96%

Table 3.2: Response rates for Experimental and Control over time

Throughout the course of the three surveys, a response rate of 96% was achieved for Experimental and 98% for Control. This response rate provides a strong database for analysis. Although participation in the research was voluntary most officers chose to complete the surveys.

The confidence interval for this research is 95%. In other words, the level of significance applied is p=0.05. This means that there is a 95% chance any outcome arises from the intervention and only a 5% probability that any outcome results from chance or something else. Bross (1971) states this level of significance has been the convention in the social sciences for almost one hundred years. Given that this RCT involves the testing of

many constructs, there is a probability that one or more of the outcomes resulted from a Type 1 error (a false discovery) rather than the impact of the intervention itself (Frane 2015). The failure to look for and accept that some results arise from error or 'noise' was recently raised by Smaldino and McElreath (2016), who criticized scientists for cutting corners in the race to publish statistically significant findings. Their research indicated statistically significant findings in only 24% of the papers, slightly more than the 20% Cohen identified in 1962. In this RCT it is acknowledged that some of the results could arise from noise or a false discovery.

Statistical significance is not the only measure necessary to determine the benefits of the RCT. The effect size, or the size of the difference between Experimental and Control is also important (Ariel & Sherman 2014), particularly when considering the cost benefit of an intervention. The effect size is determined by applying the Cohens d equation (Cohens 1977). It is accepted that effect sizes in the range of 0.2 - 0.49 are small, 0.5 - 0.79 are medium, and any effect size 0.8 and greater are considered large (Cohens 1977). The Cohens d equation was used in interpreting the effect sizes of the intervention in this RCT via the effect size calculator at the Campbell Collaboration (2016).

3.12 Summary

This research involved utilising an RCT to test whether a procedural justice training programme would improve FYCs' attitudes towards members of the community during interactions and improve interactions between FYCs and members of the community. The use of random assignment of twenty-eight matched recruits into Experimental and Control has meant that there is a sound statistical base upon which the results can be inferred as being caused by the intervention. This permits the researcher to state an explicit causal link between the intervention and the reported outcomes.

CHAPTER FOUR: RESULTS

This chapter presents the results of the RCT, with the FYC surveys component as well as the FTO ratings. The results of the FYC surveys are presented at three points: baseline, immediately after the training (post-intervention 1) and then after the eight-week mentor period (post-intervention 2). Regarding the constructs that are measured in this chapter, a higher score indicates a greater agreement with the scale or statement measured in that construct. This RCT was conducted to determine whether a procedural justice training programme would improve FYCs' attitudes towards members of the community during interactions and improve interactions between FYCs and members of the community.

4.1 **Baseline Results**

It was anticipated that due to the pairing and subsequent random allocation of the FYCs, both Experimental and Control would be equivalent on all test measures. At baseline, 56 FYCs (28 in Experimental, 28 in Control) completed the survey, with a response rate of 100%. Using a matched pair *t*-test for all constructs examined in this RCT, table 4.1 below presents results comparing Experimental and Control at baseline.

Variable	Cronbach's alpha	Exp. mean	SD	Ctrl. mean	SD	N (FYCs)	t	df	p	d
PJ Interaction	0.96	6.15	0.95	6.24	1.06	56	-0.32	27	0.749	-0.09
Communication Skills	0.97	5.72	1.12	5.91	1.10	56	-0.60	27	0.556	-0.17
PJ Police	0.92	5.54	0.93	5.77	0.84	56	-1.02	27	0.319	-0.26
Legitimacy	0.67	5.63	0.87	5.76	0.82	56	-0.51	27	0.614	-0.15
Police Effectiveness	0.95	5.82	0.88	5.98	0.75	56	-0.75	27	0.458	-0.20
Cooperation	0.88	5.31	1.11	4.97	0.72	56	1.15	27	0.259	0.36
Citizen Focus	0.63	3.18	1.10	3.55	1.13	56	-1.33	27	0.195	-0.33
Perceived PJ Effectiveness	0.67	5.24	0,98	5.02	1.01	56	0.88	27	0.389	0.22
Affective Empathy	0.82	3.56	0.76	3.35	0.55	54	1.15	26	0.260	0.32
Cognitive Empathy	0.94	5.41	0.58	5.57	0.67	54	-0.92	26	0.367	-0.26

Table 4.1: Data and statistical analysis of constructs in survey at baseline

There were no statistically significant differences (p<0.05) between the mean scores for Experimental and Control for any of the constructs at baseline (table 4.1). The results demonstrate that prior to the intervention the two groups were similar on all constructs. This means that the pairing and the random allocation process created equivalence on these measures between the two groups prior to the start of the procedural justice training.

No missing data were recorded for any of the variables with the exception of empathy (affective and cognitive) where one of the respondents had a missing response at baseline. The respondent and their matched pair were removed for the analysis of those two constructs. As this is a minimal amount of missing data (<5%), it was therefore concluded that the missing response and the subsequent removal of that pair created no bias in baseline comparisons.

4.2 Post-intervention Results (follow-up 1)

The first follow-up survey took place immediately after the intervention. All survey constructs had a maximum score of 7, with higher scores reflecting greater agreement with the specific construct. Matched-pairs *t*-tests were used for all constructs to assess any differences between Experimental and Control following the procedural justice training. In total, 55 surveys were completed immediately after the intervention (follow-up 1), comprising 27 from Experimental and 28 from Control. This represented an overall response rate of 98.21% with individual response rates of 96.43% in Experimental and 100% in Control.

Table 4.2 below presents results comparing Experimental and Control at follow-up1.

There was some missing data identified in these responses. There was missing data for one respondent in the constructs of PJ Effectiveness, PJ Interaction, Communication Skills, PJ Police, Legitimacy, Police Effectiveness, Cooperation, and Citizen Focus. In these cases, the respondent and their pair were removed and as a consequence no scale score was computed for the matched pair. There were two constructs where two respondents from different pairs did not provide data, Affective Empathy and Cognitive Empathy. In these cases, both pairs of respondents were removed meaning no scale score was computed for these participants or their matched pair partners.

Variable	Cronbach's alpha	Exp. mean	SD	Ctrl. mean	SD	N (FYCs)	1	df	р	d
PJ Interaction	0.95	6.22	0.74	6,49	0,59	54	-1.39	26	0.177	-0.40
Communication Skills	0.93	5.91	0.74	6.04	0.69	54	-0.62	26	0.543	-0.18
PJ Police	0.92	5.90	0.79	5.90	0.52	54	0.00	26	1.000	0.00
Legitimacy	0.69	5.76	0.84	5.69	0.70	54	0.34	26	0.734	0.09
Police Effectiveness	0.92	5.90	0.71	5.94	0.66	54	-0.22	26	0.826	-0.06
Cooperation	0.88	5.77	0.81	5.41	0.81	54	1.45	26	0.160	0.44
Citizen Focus	0.76	3.30	1.35	3.43	1.37	54	-0.43	26	0.668	-0.10
Perceived PJ Effectiveness	0.55	5.72	0.71	5.15	0.86	54	2.83	26	0.009	0.72
Affective Empathy	0.76	3.73	0.66	3.28	0.79	52	2.266	25	0.032	0.62
Cognitive Empathy	0.87	5.21	0.79	5.58	0.75	52	-1.58	25	0.127	-0.48

 Table 4.2: Data and statistical analysis of constructs in survey post-intervention (follow-up 1) – Matched Pairs

 t-tests - comparing experimental/treatment and control FYCs using the post-training survey.

Analysis of the first follow-up survey data (table 4.2) showed statistically significant differences (p<0.05) between Experimental and Control scores on two of the constructs of interest: the FYCs in Experimental were significantly more likely to perceive procedurally just treatment of the public as effective than FYCs in Control (p=0.009); and FYCs in Experimental also showed significantly higher levels of affective empathy after training than FYCs in Control (p=0.032). There were no significant differences detected in any of the remaining constructs (table 4.2) although Experimental rated higher in six of them with Control higher in two.

Perceived PJ Effectiveness: The higher the score, the greater agreement by the respondent that procedurally just treatment of the public was effective. A statistically significant difference was found at the first follow-up between Experimental and Control (t=2.83, df=26, p<0.009) (table 4.2). The results show a medium effect size of the training intervention (d=0.72).

Affective Empathy: A statistically significant difference was found between Experimental and Control immediately following the intervention (t=2.266, df=25, p<0.032) (table 4.2). The results indicate the training intervention had a medium effect size (d=0.62).

PJ Interaction: There was no significant difference between Experimental and Control at the first follow-up survey (table 4.2). The mean score of Experimental was 6.22 and Control was 6.49 (p=0.177). Although Experimental and Control were not significantly different at this first follow-up, the results showed greater agreement that the respondent used procedurally just practices in Control compared to Experimental. Cohens *d* indicated a small to medium effect size (*d*=-0.40).

Communication Skills: There was no significant difference between Experimental and Control (table 4.2). The mean score of Experimental was 5.91 and Control was 6.04 (p=0.543). While not significantly different, the results indicated a greater self-assessment of communication skills in Control compared to Experimental. Cohens *d* indicated a small effect size (*d*=-0.18).

PJ Police: Table 4.2 shows no significant difference between Experimental and Control for this construct at this point in time. The mean score of Experimental was 5.90 and Control was also 5.90 (p=1.00, d=0.00).

Legitimacy: There was no significant difference between Experimental and Control for this construct at this time. The mean score of Experimental was 5.76 and Control was 5.69 (p=0.734). Cohens *d* indicated a small effect size (*d*=0.09).

Police Effectiveness: After follow-up 1, Experimental and Control did not differ significantly on whether they believed the QPS was effective. The mean score of Experimental was 5.90 and Control was 5.94 (p=0.826). Cohens *d* indicated a small effect size (*d*=-0.06).

Cooperation: Experimental and Control were not significantly different at this first follow-up. The mean score of Experimental was 5.77 and Control was 5.41 (p=0.160). Cohens *d* revealed a medium effect size (*d*=0.44). The results indicate that, post-intervention, FYC in Experimental had a stronger belief than Control FYCs that the public was willing to cooperate with police.

Cognitive Empathy: There was no significant difference between Experimental and Control for this construct at the first follow-up survey. The mean score for Experimental was 5.21 compared to a mean of 5.58 for Control. A high score reflects higher cognitive empathy (p=0.127). Cohens *d* revealed a medium effect size (*d*=-0.48). Although not statically significant, there is a clear indication that FYC in Control displayed greater cognitive empathy than Experimental at this point in time.

Citizen Focus: At follow-up 1 there was no statistically significant difference between Experimental and Control (table 4.2). In this measure the respondents were asked whether they agreed or disagreed with three statements regarding their attitude to the public and a service model of policing with their responses measured on a 7-point Likert scale. The mean score for Experimental was 3.30 compared to a mean of 3.43 for Control (p=0.668). Cohens *d* revealed a small effect size (*d*=-0.10).

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4.3 Eight-week Post-intervention (follow-up 2)

2.

The second follow-up survey took place following the eight-week mentor period. Again, all survey constructs had a maximum score of 7, with higher scores reflecting greater agreement with the specific construct. Analysis from that data is presented in Table 4.3 below. Matched-pairs *t*-tests indicated that following the mentor period, there was no significant difference between Experimental and Control for any of the constructs. In total, 52 surveys were completed after the eight-week mentor period (follow-up 2), comprising 26 from Experimental and 26 from Control. This represented an overall response rate of 92.86% with similar individual response rates in Experimental and Control.

Table 4.3 below presents results comparing Experimental and Control at follow-up

Missing data was recorded for respondents from three individual pairings out of the 26 that participated in this survey. In these cases, each of those respondents and their 'pair' were removed and consequently no scale score was computed in relation to matched pairs.

Variable	Cronbach's alpha	Exp. mean	SD	Ctrl. mean	SD	N (FYCs)	1	df	p	d
PJ Interaction	0.98	6.31	0.81	6.21	1.27	48	0.32	23	0.753	0.09
Communication Skills	0.96	5.79	0.77	6.02	0.86	48	-0.90	23	0.380	-0.28
PJ Police	0.95	5,85	0.75	6.21	0.84	48	-1.35	23	0.191	-0.45
Legitimacy	0.70	5.55	0.82	5.86	0.88	48	-1.25	23	0.223	-0.36
Police Effectiveness	0.95	5.74	0.73	5.95	0.82	48	-0.88	23	0.386	-0.27
Cooperation	0.89	5.30	0.71	5.29	0.92	48	0.04	23	0.970	0.01
Citizen Focus	0.75	3.39	1.45	3.81	1.36	48	-1.12	23	0.275	-0.30
Perceived PJ Effectiveness	0.78	5.35	0.91	4.86	1.34	48	1.64	23	0.115	0.43
Affective Empathy	0.73	3.50	0.57	3.39	0.83	48	0.47	23	0.641	0.15
Cognitive Empathy	0.86	5.26	0.74	5.48	0.84	48	-0.96	23	0.346	-0.28

Table 4.3: Data and statistical analysis of constructs in survey 8-weeks post-intervention (follow-up 2) - Matched Pairs t-tests - comparing experimental/treatment and control FYCs using the post-mentor phase survey.

4.4 Comparing Results Across Baseline, Post-intervention (follow-up 1) and Eightweeks Post-intervention (follow-up 2)

When comparing the data from all three surveys, only two constructs had significant differences identified — Affective Empathy and Perceived PJ Effectiveness. This occurred in the survey administered post-intervention (follow-up 1) however was not identified in the post-mentor survey (follow-up 2). Whilst the remaining constructs showed no statistically significant differences when compared across the course of the RCT, changes can be seen in both Experimental and Control.

Affective Empathy: In this construct, the score results in both Experimental and Control over the duration of the study are shown in figure 4.1. At baseline, there was no significant difference between either group. At follow-up 1 there was an increase in the mean score of Experimental to 3.73 which was statistically significantly different to Control whose mean had decreased to 3.28 (p=0.032). A medium effect size was identified at this point in time (d=0.62). At follow-up 2 however the mean for Experimental had declined to 3.50, a mean lower than baseline (3.56) and Control had increased to a mean of 3.39. Although this difference at follow-up 2 was not statistically significant (p=0.641) and the effect size was small (d=0.15), the decline in Experimental suggests any benefits from the intervention may decay over time and with exposure to operational policing.



Figure 4.1: Comparisons between Experimental and Control in the 'Affective Empathy' construct at each survey point (post-training =follow-up 1, post-mentor =follow-up 2).

The data are presented as the mean score \pm standard deviation for each group at each time point.

Perceived PJ Effectiveness: The mean for Perceived PJ Effectiveness increased in Experimental at follow-up 1 to 5.72 and was statistically significantly different to Control mean of 5.15 (p=0.009). The effect size at this point was medium (d=0.72). When compared at follow-up 2 the mean declined in both Experimental and Control to 5.35 and 4.86 respectively. This was not statistically significant (p=0.115) and had a small effect size (d=0.43), however, as Experimental maintained a higher mean for this construct at follow-up 1 and follow-up 2 it suggests the procedural justice training increased Experimental's view that procedural justice was effective although similar to 'affective empathy', this effect appears to have decayed over time.



Figure 4.2: Comparisons between Experimental and Control in the 'Perceived PJ Effectiveness' construct at each survey point (post-training =follow-up 1, post-mentor =follow-up 2).

The data are presented as the mean score \pm standard deviation for each group at each time point.

4.5 FTO Ratings

4.5.1 Descriptive Statistics for Ratings

Table 4.4 below outlines the comparison for average number of FTO ratings per officer in both Experimental and Control. It also identifies the average number of ratings per member of the public type and incident type. There were no statistically significant differences between average numbers of ratings for Experimental and Control FYCs for any member of public type or encounter type (ts<1.23, ps>0.228)

	N FYCs with rating		h Mean number of ratings per FYC		SD nur ratings	nber of per FYC	ber of Min number or FYC ratings per F		Min number ratings per F		Max number of ratings per FYC	
	Exp	Con	Exp	Con	Exp	Con	Exp	Con	Exp	Con		
Overall (all encounters)	28	28	28.86	25.36	25.65	19.64	2	1	109	71		
Member of public type												
Witness	17	19	3,47	2.47	2.85	1.98	1	1	10	7		
Victim	23	22	5.00	4.50	3.19	3.92	1	1	13	16		
Suspect	24	22	5.21	4.95	4.28	4.18	1	1	17	17		
Traffic	27	25	11.85	11.20	14.20	9.03	2	1	72	38		
Other	27	22	6.56	7.36	10.14	7.10	1	1	54	31		
Encounter type												
Street check	14	16	4,00	4.38	3.14	4.32	1	1	12	15		
Traffic related	28	25	10.75	10.08	13.32	8.11	1	1	68	36		
Domestic violence	20	23	3.85	3.35	2.43	2.76	1	1	9	12		
General enquiries	21	15	2.86	3.00	1.49	1.89	1	1	6	7		
QPRIME task	18	14	3.67	3.64	1.49	3.03	1	1	14	10		
Other	26	26	9.54	8.15	13.27	7.80	1	1	62	34		

Table 4.4: Average number of ratings by Experimental and Control for type of person and encounter type.

4.6 Within-FYC Variation

Table 4.5 represents the descriptive statistics for variance in ratings within each FYC's ratings. In this table, Mean represents the average within-FYC variation in each condition for each question on the FTO rating tool. There was no significant difference identified between Experimental and Control on any item or scale (ts < 1.42, ps > 0.162).

	Q6. Respect		Q7. Neutral		Q8r. Listen		Q9. Trust motives		Scale	
Variance (within FYC)	Exp	Con	Exp	Con	Exp	Con	Exp	Con	Exp	Con
Mean	0.18	0.45	0.27	0.29	0.44	0.28	0.29	0.25	0.17	0.18
Median	0.05	0.10	0.27	0.25	0.14	0.23	0.18	0.22	0.08	0.12
Mode	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SD	0.26	0.96	0.34	0.28	0.60	0.29	0.37	0.24	0.22	0.19
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	0.93	4.75	1.23	0.89	2.38	1.07	1.25	0.73	0.82	0.63

Table 4.5: Variance in FYC ratings.

4.7 Analyses by FYC

Table 4.6 shows an analysis of the use of procedural justice practices by Experimental FYCs compared with Control FYCs. The scale was calculated by taking the average score across the 4 items (respect, neutrality, listening and trustworthy motives) each FYC was rated on during an encounter by their mentor FTO. As a measure of internal consistency, Cronbach's α was applied to the scale. The Cronbach's α score of 0.891 is considered to be good (Nunnally & Bernstein 1994). Displayed are the results of PJ scale analyses representing the results of matched pairs *t*-tests for the PJ scale score.

Those FYCs in Experimental were rated as more procedurally just when dealing with witnesses, suspects, and "other" members of the public than those in Control, although not to a statistically significant level and with small effect sizes. The FYCs' use of procedural justice was also analysed in respect to the type of encounter they engaged in. This analysis shows that FYC in Experimental were more procedurally just during interactions classified as domestic violence, a general inquiry or a QPRIME task. A small effect size was calculated for domestic violence (d=0.36) with medium sizes for general enquiries (d=0.50) and QPRIME tasks (follow up enquiries regarding ongoing files) (d=0.70). FYC in Control rated higher in their use of procedural justice when the interaction was classified as street check with a medium effect size (d=-0.65), as well as with minimal effect sizes for traffic related (d=-0.02) and 'other' (d=-0.06). Overall, officers in Experimental rated slightly higher than those in Control, although it is conceded that there is some variability in the findings.

	Experi	mental	Cor	itrol					
	Mean	SD	Mean	SD	Ν	I	df	p	d
Overall (all encounters)	6.65	0.49	6.61	0.45	56	-0.32	27	.752	0.08
Member of public type									
Witness	6.65	0.62	6.50	0.65	22	-0.76	10	0.468	0.23
Victim	6.57	0.53	6.58	0.49	36	0.07	17	0.945	-0.02
Suspect	6.58	0.53	6.47	0.59	36	-0.58	17	0.568	0.21
Traffic	6.57	0.66	6.64	0.44	48	0.44	23	0.661	-0.13
Other	6.62	0.55	6.49	0.53	40	-0.91	19	0.376	0.23
Encounter type									
Street check	6.20	0.90	6.67	0.50	16	1.51	7	0.175	-0.65
Traffic related	6.57	0.66	6.58	0.50	50	0.06	24	0.955	-0.02
Domestic violence	6.63	0.53	6.43	0.57	32	-0.92	15	0.373	0.36
General enquiries	6.69	0.71	6.36	0.62	20	-1.54	9	0.157	0.50
QPRIME task	6.67	0.66	6.20	0.67	18	-1.27	8	0.241	0.70
Other	6.56	0.54	6.59	0.50	46	0.23	22	0.824	-0.06

Note. N FYCs per condition = 28.

Table 4.6: Results PJ scale

4.8 Analyses by Interaction

Table 4.7 shows the results of independent groups *t*-tests comparing average ratings for Experimental and Control interactions, regardless of FYC, on the PJ scale described previously. Experimental FYC encounters were rated significantly more procedurally just (M=6.68, SD=0.61) than Control FYC encounters (M=6.51, SD=0.66), t(1516)=-5.22, p<0.001, d=0.27. Although this analysis is of the interactions and not the randomized FYCs and the effect size is small, the results suggest that, overall, the FYCs in Experimental applied more procedurally just practices in encounters as a consequence of the procedural justice training intervention.

Variable	E	Experimental			Control					
	Mean	SD	n	Mean	SD	n	'	df	p	d
PJ scale	6.68	0.61	808	6.51	0.66	710	-5.22	1516	<0.001	0.27

Table 4.7: Overall analysis of Experimental and Control for all encounter types (n=1518)

4.9 Summary

In relation to FYC survey findings, two constructs exhibited statistically significant differences between Experimental and Control at follow-up 1, though there is the possibility that a "type one error" (Frane 2015) may have occurred when measuring the various constructs. Further, whilst this difference did not remain statistically significant at follow-up 2, Experimental continued to have higher scores than Control in both constructs. After follow-up 2, Experimental rated higher than control in terms of their belief that procedural just practices were effective and produced higher scores for Affective Empathy, although both effects appeared to decay between follow-up 1 and follow up-2.

Control had higher scores for three constructs at follow-up 1 — their self-rated use of procedural justice, their self-rated communication skills and cognitive empathy. Control maintained higher scores for self-rated communication skills and cognitive empathy at follow-up 2 (although not statistically significant), however the score for self-rated use of procedural justice fell below that of Experimental.

Analysis of the FTO ratings of the FYC encounters, showed greater use of procedural justice by Experimental in encounters involving witnesses, suspects and 'other'. Control however were more procedurally just when dealing with victims and persons involved in traffic related encounters. If the interaction was classified as a domestic violence, general inquiry or a QPRIME task, Experimental FYC were more procedurally just whilst it was Control FYC who used more procedural justice in encounters classified as traffic, street

checks or other. Overall, the results of the RCT indicates that Experimental were more likely to apply procedurally just practices during interactions with the public than Control.

CHAPTER FIVE: DISCUSSION AND CONCLUSION

The potential benefits of adopting procedural justice as 'business as usual' for policing organisations are well known (Sargeant *et al.* 2016). The theoretical link between procedural justice and citizen cooperation or compliance with police has been somewhat confirmed in empirical research (Jackson *et al.* 2012). Donner *et al.* (2015) found that public perceptions of police procedural justice increased their opinions on police satisfaction, willingness to cooperate and trust in police. This RCT was developed to ascertain whether procedural justice training of police FYCs could improve police attitudes towards procedural justice as well as improve police-public interactions from the police perspective. This chapter examines the results of the RCT, and discusses how the intervention may have affected the FYCs and their subsequent police-public interactions. The chapter also considers policy implications, including the future of the procedural justice training, and the limitations of this RCT.

5.1 Main Findings

5.1.1 Finding 1

Firstly, the recognition that procedural justice was effective was statistically significantly higher at follow-up 1 for the FYCs in Experimental, compared to Control. Analysis of this construct at follow-up 2 showed an average decline in both Experimental and Control, although no longer statistically significantly different, the Experimental mean remained higher than that of Control again with a medium effect size.

5.1.2 Finding 2

The next major finding was that whilst the mean score for both Experimental and Control was higher in the construct of PJ Interaction (which measured the FYCs own use of procedurally just practices) at follow-up 1, Control FYCs scored higher than Experimental.

At follow-up 2 however, Experimental continued to increase whilst Control decreased to below their baseline score. It is noted that the effect size was minimal at this point in time.

5.1.3 Findings 3 to 6

The next four findings arise from analysis of the FTO ratings given to FYCs by their mentors during interactions with the public. A PJ scale was created to compare Experimental and Control officers' use of procedural justice during their police-public interactions. Three findings relate to the use of procedural justice and the type of interaction performed. When conducting a street check, analysis showed the mean score for FYCs in Control on the PJ scale was higher than Experimental with a medium effect size. If the interaction involved discussing a general inquiry, FYCs in Experimental exhibited a higher score, also with a medium effect size. Officers allocated a QPRIME task, usually a follow up inquiry regarding an ongoing file, rated higher on the PJ scale if they were in Experimental rather than Control, with a medium effect size. The sixth outcome arises from an analysis of the average ratings for all interactions of both Experimental and Control. In this case, interactions with FYCs from Experimental rated significantly more procedurally just than interactions involving Control FYCs (p=<0.001). A small effect size was calculated.

5.1.4 Finding 7 and 8

The next two findings relate to the constructs measuring empathy. The Affective Empathy of the FYCs was higher in Experimental than Control at follow-up 1 to a statistically significant level. Post-mentor (follow-up 2), analysis showed a decline in Experimental and an increase in Control, although no longer statistically significantly different, the Experimental mean remained higher than that of Control. The analysis of the scores for the construct of Cognitive Empathy showed the mean for FYCs in Experimental declined at follow-up 1 yet increased for FYCs in Control. The comparison between experimental and control at this point displayed a medium effect size. At follow-up 2, the Experimental score

was slightly higher and Control, although still rating highest, had decreased. There was a small effect size.

5.1.5 Finding 9 and 10

Police legitimacy is linked to the next two findings regarding constructs that measured FYCs' beliefs that the QPS used procedurally just practices (PJ Police) and their belief in police legitimacy (Legitimacy). For PJ Police, Experimental and Control mean scores at follow-up 1 were identical and not significantly different. At follow-up 2 however the mean score for Experimental was slightly lower than Control, with a medium effect size. When analysing FYCs' views on Legitimacy, at follow-up 1 mean scores had increased in Experimental and decreased in Control with a minimal effect size was. This was inverted when analysing Legitimacy at follow-up 2 with the mean score for Experimental lower and an increase in the mean for Control, with a larger effect size.

5.1.6 Finding 11

The last finding relates to FYCs' views on the public's willingness to cooperate with police, something the literature tells us should increase with increasing legitimacy (Jackson *et al.* 2012; Donner *et al.* 2015). At follow-up 1, Experimental scored higher than Control in terms of their perception of the public's willingness to cooperate with police. At follow-up 2, however, both Experimental and Control rated the public's willingness to cooperate similarly.

5.2 Discussion

The first finding showed that the procedural justice training programme was able to increase FYCs' views that procedural justice is effective at both follow-up 1 and follow-up 2. Whilst there was some decay in mean scores for both groups at follow-up 2, Experimental maintained more positive views about PJ effectiveness. There are a number of possibilities

that might explain these results. The extent of the procedural justice training may have been insufficient to transfer the information and stimulate the desired effect on participants, as Pennay and Paradies (2011) found programmes that run for longer periods are more effective. It may also be the case that once operational, the FYCs were influenced by the police culture. The values, attitudes and ideals held by police officers have been shown to erode over time when exposed to negative elements of police culture (Sherman 1980; Ford 2003; White & Escobar 2008) such as racist behaviour, an insular sense of solidarity, cynicism and authoritarianism (Reiner 1992). This is similar to Haarr (2001) and Heslop (2011) who both identify that basic training has a positive impact to the attitudes of officers towards community policing and police public relations activities although this diminishes over time once officers commence operational duties and obtain greater exposure to organisational culture. This effect decay may also be reversed if a booster programme or other form of on-going training was conducted as suggested by Platz (2016). Introducing the intervention in the first month of training may also improve the longevity of the effect as it will give facilitators and FYCs five extra months to embed it in the practical application of skills exercised in scenario based training and assessments. It remains the case however that Experimental participants believe procedural justice is more effective than Control participants.

The next finding regards the FYCs ratings of their own use of procedurally just practices. Whilst both Experimental and Control increased their means at follow-up 1, Control scored higher. At follow-up 2 however Experimental continued to increase whereas Control decreased to below baseline results. It is possible that after the training, Experimental had a greater insight into what good procedural justice and communication practices were and how to operationalize it, which gave them a more grounded understanding of its benefits and use. This could also have required them to assess a more realistic view of their own use and application of procedural justice. Control were not given the training and it is thought that at follow-up 2, having experienced operational policing they understood their interactions did not completely represent the procedural justice statements in the survey. Any influence that police culture had on the groups should be equivalent, due to the randomization and their homogeneity, so it is posited that the continued increase exhibited in Experimental is due to the intervention. This construct is the first where no decay was identified which is suggestive that the training, at least for this construct, is effective in increasing FYCs' perceptions that they use procedural justice. Viewed in the context of the final three results from the FTO ratings, it is apparent that Experimental employed procedurally just practices in their interactions more often than Control.

Analysis of the FTO rating data produced four main findings which refer to the relationship between the use of procedural justice and the type of interaction being conducted by the officers. A PJ scale was created by calculating the average score across the 4 procedural justice items the FYCs were rated on by their mentor officers for each interaction. This scale was used to identify use of procedural justice during their police-citizen interactions. Three of the findings relate to the use of procedural justice and the type of interaction undertaken. For officers involved in a street check interaction, analysis showed the mean score on the PJ scale for FYCs in Control was higher than Experimental with a medium effect size. If the interaction involved discussing a general inquiry FYCs in Experimental exhibited a higher score, also with a medium effect size. Officers allocated a QPRIME task rated higher on the PJ scale if they were in Experimental rather than Control. The effect size for this analysis was also medium. These encounter types, although recording the largest effect sizes from analysis of the FTO ratings are also the interactions that have the lowest numbers of officers who have been rated (table 4.4). Due to the small number of

ratings and officers involved, and the opposing results found for street checks compared to general enquiries or QPRIME encounters, it is possible these three results are "noise" or a result of chance rather than any effect from the intervention.

However, there is also the possibility that these are true effects, in which case there is a possible explanation for the opposing finding in relation to street checks. Street checks are conducted without any legislative authority and officers are acutely aware that a person has no lawful obligation to provide them with any information during a street check unless it is reasonably suspected they may be committing an offence. It is posited that the mentor FTO have developed a 'softer' practice when talking to people involved in these situations that is different than in other interactions in order to obtain relevant information. This style would be learned by FYCs through experience and exposure to the practice and although this more conversational manner may be successful in obtaining a person's details, there is almost certainly no reference to the fact the person is under no lawful obligation to comply with their requests. It is further posited that the mentor FTO for the Control FYCs see this style as being procedurally just because of its lack of assertion and politeness and don't identify their lack of fully explaining a person's rights to them as being unfair, thus rating the interaction as high on the PJ scale.

The last finding in this series arises from an analysis of the average ratings on the PJ scale for all interactions of both Experimental and Control (n=1518). In this case, interactions with FYCs from Experimental (n=808) rated significantly more procedurally just than interactions involving Control FYCs (n=710) (p=<0.001). A small effect size of d=0.27 was calculated. Even though this analysis relates to individual interactions and not randomized FYCs, and it has a relatively small effect size, it suggests that the intervention led to Experimental FYCs being more procedurally just than Control FYCs when dealing with members of the community.

The next finding relates to affective empathy and it indicates that immediately postintervention Experimental had a significantly higher score than Control with a medium effect size. Although at follow-up 2 the Affective Empathy scores decreased in Experimental and increased in Control, Experimental maintained the higher score. Understanding and displaying empathy towards others was a component of the training and this analysis demonstrates the effective impact of the intervention on Experimental FYCs, increasing their affective empathy. The decay exhibited at follow-up 2 is like that which occurred in the first finding and is suggestive that the treatment effect may be short-term and require some form of 'refresher training' to achieve a more prolonged impact. It could also arise from the impact of negative police culture on participants (Sherman 1980; Ford 2003; White & Escobar 2008).

The next finding relates to Cognitive Empathy which decreased in Experimental and increased in Control at follow-up 1 with a medium effect. This trend was reversed at follow-up 2 although with a smaller effect. It is posited that, as was the case with the FYCs use of procedural justice discussed above, a greater understanding of empathy and how it can be established and displayed gave Experimental a more realistic view of their own empathetic traits at the time of the follow-up 1 survey. At follow-up 2, as Experimental employed more procedural justice practices, their cognitive empathy increased. Conversely perhaps, after operational realities confronted Control, they provided a more realistic view of their cognitive training to increase cognitive empathy amongst police FYCs.

The next two findings relate to whether the QPS as an organisation adopts procedurally just practices and the cohorts' general perceptions surrounding police legitimacy in terms of moral alignment and obligations to obey. In both instances the Control FYCs scored higher at follow-up 2 than Experimental regarding the QPS adopting procedural justice practices and the general legitimacy of police. With respect to finding nine, both groups increased from baseline to record the same score at follow-up 1 whilst a small difference was noted at follow-up 2 with the mean for Experimental decreasing slightly and the Control mean increasing slightly It is posited that FYCs in Experimental had a better understanding of what procedural justice is and had a more realistic appreciation of how it is operationalised in the QPS because of the intervention. This in turn may have allowed them to better identify procedural justice practices being employed once they were operational and exclude practices that did not fit their understanding.

The Experimental mean for legitimacy increased post-intervention whilst Control decreased slightly. It is noted there was a minimal effect size. At follow-up 2 however, the mean for Experimental decreased whereas Control increased with an effect size of small/medium for this result. Whilst both Experimental and Control views and opinions on these constructs would have been influenced by their observations and the views of more senior officers in operational situations and police culture, those in Experimental also had the experience of the procedural justice training to reflect on when considering legitimacy and comparing this to the actual observations of police officers in the field. It is also plausible that due to the relatively small sample size these results are "noise" or have originated by chance rather than any influence from the intervention.

Overall, analysis of these two results indicate it is also possible that the Experimental cohort has become more cynical about police in general and the use of procedural justice and their legitimacy. The impacts of operational duties (Haarr 2001; Heslop 2011) combined with some of the negative effects of police culture — increasing cynicism and authoritarianism, and eroding values and attitudes — may well have influenced this score (Sherman 1980; Ford 2003; White & Escobar 2008; Reiner 1992). This could explain the decline of Experimental, who had received training identifying procedural justice and its

relationship to legitimacy, and the increase in Control, who were basing their view on their observations and interaction with more experienced officers, none of whom had received the intervention. It should be noted however that the Experimental mean in both constructs was above five (on a 7-point scale) and should not be interpreted that this cohort thought the QPS was not employing procedural justice practices or was not legitimate. The score is measuring their view, at a point of time after 8 weeks of operational duties, which is different to their views immediately after the intervention. These findings might also be a case of Experimental having a greater knowledge and understanding of what procedural justice and legitimacy looks like than those in Control and may simply be an awareness of best practice difference.

If this trend by Experimental to adopt procedural justice practices continues, the intervention may in fact improve measures of legitimacy and trust (Myhill & Quinton 2011), bolster the social bonds between police and members of the community (Tyler *et al.* 2014), and enrich the respectful nature and fairness of police-public interactions enhancing legitimacy (Tyler 2004).

The last set of finding relates to FYCs' perception of public willingness to cooperate. At follow-up 1 both groups increased in their perception of public willingness to cooperate with police. Experimental rated highest and there was a medium effect. Both Experimental and Control exhibited a decrease at follow-up 2, although with a minimal effect size. The results suggest that for this construct the procedural justice training was effective although similar to previous findings 1 and 7, this effect decayed over time. This result may also be indicative of the influence of some of the negative parts of police culture on the participants, such as cynicism and authoritarianism (Reiner 1992) observed during their real-life interactions. These findings indicate the effect of the procedural justice training on Experimental appears to decay over time. The timing of the introduction of the intervention and a potential booster or supplementary programme may contribute to greater longevity.

Greater use of procedural justice practices by QPS officers could possibly reduce recent criticism it has received particularly regarding their treatment of victims (Queensland Government 2013; Commonwealth of Australia 2014; Queensland Government 2015a). A lack of some of the principles of procedural justice are consistent themes of this criticism such as police failing to consider victim wishes, police failing to adequately inform and update victims on progress, and a lack of understanding of underlying issues and vulnerabilities of victims (Queensland Government 2013; Commonwealth of Australia 2014; Queensland Government 2015a). However, more research is needed in this area.

It is apparent that there were a number of constructs measured in this RCT where there was no effect from the intervention or the effect was not statistically significant and the effect size was minimal or small. This could be the result of these constructs failing to specifically identify or measure the FYCs' learning. This result could also be "noise" or error as mentioned by Smaldino and McElreath (2016) or a consequence of the small sample size (n=56).

5.3 Implications for Future Policy Changes

The potential link between a procedurally just policing organisation and enhanced legitimacy is clear in the literature (Mazerolle *et al.* 2013; Murphy *et al.* 2008; Murphy 2013; Tyler & Jackson 2013). The findings from this RCT highlight a possible opportunity for the QPS to strengthen community ties and enhance legitimacy by increasing officers' use of procedural justice via training. Support for the use of procedural justice in police interactions with the public was recently been recognised by President Obama's Taskforce on 21st Century Policing (2015, p.1) when they recommended procedurally-just policing be implemented as

"one of the key pillars of modern policing". There are a number of strategies that could be employed by the QPS to grasp that opportunity, as presented below.

5.3.1 Ongoing Training

This RCT was designed to test whether procedural justice training would be able to improve police FYCs' attitudes towards procedural justice and examine whether it could increase the application of procedurally just practices in real-life situations. Some of the positive outcomes of the training appeared to decay over time and whilst this research did not attempt to identify why that occurred, the effect is not rare in training programmes that target ethics and values (Platz 2016; De Shrijver & Maesschalck 2014). Some research has also identified the impact that negative police culture and operational policing has on the erosion of values, attitudes and beliefs of officers (Sherman 1980; Reiner 1992; Haarr 2001; Ford 2003; White & Escobar 2008; Heslop 2011) which would be contrary to the values, attitudes and beliefs this intervention aimed to instil.

Research from both Karlan *et al.* (2010) and Johnson and Goldstein (2003) shows that reminders and prodding can be beneficial in improving effectiveness and generating compliance with desired aims. This might be achieved via a refresher or booster training programme. Further research is recommended to identify whether this may help to deter any effect decay. The addition of other complementary training, such as the values-based QPS Voice 4 Values Programme (Platz 2016) would be an ideal way of reinforcing the values and benefits of procedural justice. There are also opportunities to incorporate other refresher training during the First Year and Constables Development Programmes which could underpin the initial training and help to fortify the outcomes.

5.3.2 Review of Curriculum

The outcomes from this research and the associated literature indicate a change in QPS training is warranted. The attitudes and practices that the procedural justice training is aiming to deliver should be integrated into the training curriculum so the principles and skills become the foundation stones for all the operational training and assessments undertaken by FYCs. A procedural justice 'philosophy' could be woven throughout the curriculum, particularly in modules that deal with operational practices and procedures such as roadside breath testing, domestic violence, drugs and liquor enforcement.

This consistent messaging could be emphasized in the current scenario based training with the use and application of procedural justice practices becoming part of the assessable criteria. This will reinforce the operationalization of procedural justice as 'business as usual' to FYCs and deliver refresher and booster reminders as to what the QPS and community expects of them. Recommendations for these changes will be taken to the QPS Training and Development Curriculum Committee.

5.3.3 Facilitators

As discussed in the methodology chapter, a potential impediment to the RCT was the delivery of the material by the nominated facilitators. Although the facilitators received the training programme from its creators, it was not delivered in full by the same person. Individual facilitators were allocated various sessions to deliver which resulted in facilitators becoming more familiar with the parts they were delivering than those parts delivered by other facilitators. This meant that there was some lack of consistency in the delivery of the training material between each trainer. This lack of familiarity with the complete material restricted the ability of facilitators to provide quality feedback to recruits in the role-plays, potentially reducing the benefit of the feedback to FYCs.
Whilst these facilitators have the skills needed to assist them in teaching and guiding FYCs it is advantageous for them to all become familiar with and deliver the entire procedural justice training intervention. Each facilitator tasked with delivering the procedural justice training in the future will be required to learn the course material and deliver it in its entirety to reduce the potential issues identified above. Facilitators in the recruit training programme at the QPS academy are subject to ongoing evaluation by their students, peers and supervisors. They are also trialling advanced assessment and feedback tools as part of a review of the unit. This allows for the provision of feedback and identifies areas where expected standards are being met as well as those requiring improvement. This process will be used to develop and enhance facilitators' skills in this new training programme.

Scenario based training and the use of real-life examples or story telling is an effective method of demonstrating to FYCs' understanding of and the application of knowledge as well as expectations of how they are expected to act as police officers (Peak 1993). It is important that these examples are current, relevant and reflect the intended aims of the training (Ford 2003). Yearly operational deployments are available to facilitators which could provide them with current examples and allow them to 'practice what they preach' in terms of adopting procedural justice. This would mean any story-telling could be drawn from recent experiences that re-inforce the operationalization of the procedural justice practices and training programme.

5.3.4 Budgetary Implications

As the programme has now been developed, there are no on-going costs other than in terms of the extra time required for delivery of the training. The integration of this into the QPS training programme requires an additional day and a half classroom time to be placed in the timetable. The inclusion of procedural justice as an assessable item in all scenario based training will also lengthen assessment times. Fiscal restraints mean the current 26-week training cannot be expanded so further consideration is needed to identify time savings that could be used to introduce this programme.

5.4 Limitations

Sample size: The sample size in this RCT was small (n=56) consisting of 28 FYCs in the Experimental and 28 in Control. The matching and block randomization of the FYCs took advantage of prior demographic knowledge about recruits, resulting in homogeneity between Experimental and Control and an increase of the statistical power of the RCT (Neuman 2011). This is particularly relevant for experiments that suffers from a small sample size as it maximizes the equivalence of Experimental and Control providing for better like to like comparisons and a reduction in variance (Ariel & Farrington 2012). A lack of further intakes graduating during the experimental timeline made using a larger cohort impossible. Any further testing or replication of this programme should attempt to utilise a larger sample which could assist in determining whether any other factors may have contributed to the outcome. Analysis of the actual police-public interactions however was not affected by a small sample size (n=1518).

A potential impediment to uptake of the training was the delivery by the trainers. The first day was split into three sections, each section of which was assigned to a different trainer. This meant that there was some lack of consistency in the delivery of training material across each trainer. This lack of familiarity with the material restricted the ability of some trainers to provide quality feedback to recruits in role-plays. Anecdotally, verbal feedback received from the recruits was positive, with recruits appearing keen to try the application of procedurally just practices in different methods of interacting with the public.

Self-reported data in surveys: Surveys are a prevalent and accepted research tool in criminology and the social sciences yet the method still has limitations (Wilcox 2005;

Neuman 2011). One limitation that possibly could have influenced the results is the hierarchical nature of policing. This may have led to FYCs providing responses in a way they believe researchers and senior officers wanted them to, rather than expressing their own opinions. Likewise, they may not have felt encouraged to be honest in their answers for fear of criticizing the organisation. The use of anonymity and the collection of data externally to the QPS was employed in an attempt to address some of these limitations.

FTO Ratings: It should be noted that many mentor FTO consistently rated their recruit high on the 7-point scale, with little variation. Further discussion with mentor FTO may identify a cause however it is possible that those FTO considered the ratings a reflection of their ability as a teacher/mentor rather than a true reflection of the skills displayed by the FYC.

Effect sizes and confidence intervals: Many of the effect sizes observed during this research fall into the minimal to small category (*d*=0.001 - 0.040). Small Cohen's *d* results may mask the fact that observed changes and outcomes arise from chance or 'noise' (Smaldino & McElreath 2016). Effect sizes in the medium to strong range were also recorded during the analysis of the survey data. Analysis of the data arising from the FTO ratings tool revealed three results with medium effect sizes, the remainder in the minimal to small category. It is also observed that the encounter types with the largest effect sizes are also the types that have the lowest numbers of officers with ratings. Care should be taken when interpreting results based on a small sample. Although the effect size is important when considering the cost benefit of an intervention (Ariel & Sherman 2014), in this instance the decision to 'find' time in the current training schedule to deliver this training means little extra resourcing is required. This will allow even the smallest of benefits to be realised if the training programme is implemented.

The confidence interval for this research is 95% meaning the level of significance applied is p=0.05. This indicates there is a 5% probability that any outcome results from chance or something else. Statistical testing concerns probabilities and when multiple tests are conducted within a single experiment, there is a likelihood of making one or more false discoveries (Frane 2015). As this RCT involves the testing of many constructs, it is acknowledged that there is a probability that some of the outcomes resulted from a 'false discovery' or Type 1 error rather than the impact of the intervention itself.

Extent and timing of training programme: One and half days is a small proportion of a 26-week training programme and the brevity of the training may have communicated a lack of importance to FYCs when compared to other longer modules in their training. It was also delivered in the penultimate week of training which reduced time for facilitators to reinforce the aims and ideals of the programme and gave FYCs little to no time to practice their new skillset. Introducing the intervention earlier in the training curriculum and reinforcing it across the entire 26-week period could assist in embedding procedural justice practices into FYCs. It is realistic to hypothesize that the intervention's brevity and the timing of the delivery limited its impact on the FYCs.

5.5 Conclusion

It is widely stated that police can potentially strengthen legitimacy by adopting procedurally just practices when dealing with the community (Hough *et al.* 2016). Further to this, perceived fair treatment of an individual is a more powerful legitimating factor than perceived competence of the police (Hasisi & Weisburd 2011; Murphy & Cherney 2012; Bradford *et al.* 2014a; Pennington 2015; Cheng 2015; Saarikkomäki 2015; White *et al.* 2016; Reisig & Bain 2016; Beijersbergen *et al.* 2016) so it would seem beneficial to modern policing organizations to improve in this area. Support for the use of procedural justice in police interactions with the public has been so influential that the USA has recently

recommended procedurally just policing be implemented as one of the key pillars of modern policing (President's Taskforce 2015). Not only is the use of procedural justice seen to be vital to modern day policing (President's Taskforce 2015), if police departments can train officers to adopt more procedurally just practices, they will also be able to strengthen their legitimacy (Mazerolle *et al.* 2012; Hough *et al.* 2016). How can they do this?

The central research questions of this thesis were: "does procedural justice training programme improve First Year Constables' attitudes towards members of the community during interactions and improve interactions between First Year Constables and members of the community?". Whilst the results of this RCT appear to have answered those questions affirmatively, further research is required. This research was conducted with a small sample size (n=56) and delivered small to medium effect sizes and whilst the confidence interval was 95%, replication of this research should reinforce the findings that the outcomes are a result of the intervention.

An important finding in this research was that those officers in the experimental cohort were significantly more procedurally just than interactions involving Control FYCs. Other findings tend to suggest that the procedural justice training programme was able to increase FYCs' affective empathy and increase their beliefs that procedurally just practices were effective. The training programme designed for this research is unique, specifically designed to transfer knowledge and skills to police FYCs enabling them to operationalize and apply procedural justice in day to day policing activities. This research appears to have identified a method where the principles of procedural justice can be incorporated into routine police interactions, something that Skogan (2015) warrants as desirable.

There was some evidence of 'effect decay' in a few outcomes however, and although this research did not identify the cause, this has been reported previously in similar values based training programmes (Platz 2016; De Shrijver & Maesschalck 2014). It is also posited that effect decay may arise from the brevity of the training being insufficient in length to properly pass on the teachings or from the impact of police culture and operational realities (Sanson *et al.* 1998; Sherman 1980; Reiner 1992; Haarr 2001; Ford 2003; White & Escobar 2008; Heslop 2011). Whatever the cause, it is recommended that the integration of procedural justice practices across the recruit training curriculum would provide a 'booster' to the results, reinforcing that adopting procedurally just practices should become business as usual in all operational situations.

The procedural justice training programme was delivered under RCT conditions at the QPS academy in 2016. It impacted on FYCs, increasing empathetic attitudes and their belief in and use of procedurally just practices in operational interactions. This training is not a silver bullet however, and requires reinforcement across the 26-week training curriculum to embed the philosophy and skills into their day to day activities. This concurs with Sherman (1982) who argued that whilst FYCs are at the academy it is the best time to commence training the 'moral' aspects of policing. The findings from this study suggest a review of the delivery of the programme, including greater facilitator knowledge of and experience with the content and its incorporation into the curriculum as a philosophy, would be beneficial. Notwithstanding the effect sizes and small sample in this research the RCT, when viewed with the current literature, has demonstrated the potential of this procedural justice training programme to improve legitimacy and increase the use of more procedurally just practices by police officers, providing a roadmap for the future of QPS officer training.

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APPENDICES

Appendix 1: Pre-intervention (baseline), post-intervention 1, and post-intervention 2

survey

6/3/2016

Qualtrics Survey Software

Information Sheet

Queensland Police Academy Training Project

INFORMATION ABOUT THIS STUDY

Project Description

The Queensland Police Service are evaluating some of the training that recruits receive. This evaluation aims to examine how training might affect recruit attitudes, recruit interactions with members of the public, and public perceptions of police and police responses.

What the Project entails

Researchers from the University of Queensland have worked alongside the Queensland Police Service (QPS) to develop this evaluation in order to learn more about police recruits, their attitudes and experiences. This evaluation includes surveys of recruits, members of the public who come in contact with recruits, and field training officer ratings of recruits' performance. All data will be collected by the researchers in a way that does not personally identify any individual recruit.

Recruits at the Queensland Police Service Academy in Oxley will be asked to complete a number of surveys about their attitudes and experiences regarding training, policing, and interactions with the public. Members of the public who come into contact with recruits as lead officer in the first eight weeks of deployment will also be provided with a survey that can be voluntarily returned to the researchers. Field training officers' evaluations of recruits' (as first year constables) interactions as the primary officer with members of the public will also be utilised in the evaluation.

This Survey

Your feedback is very important for this evaluation and your answers to the survey questions will help improve recruit training in the future. At a number of time points – before final training, at the end of training, and after one month of deployment – all recruits in this intake group will be invited to complete surveys regarding their experiences. Your answers to this survey will help improve policing and police training in the future.

Completion of the surveys is <u>voluntary</u>. It is expected the survey will take no more than 15 minutes to complete. By completing this survey, you agree that you have read and understood this Information Sheet for this research project. If you choose not to complete the survey evaluation or choose not to answer any specific questions, you can do so without penalty, judgement or discriminatory treatment. Your decision will in no way impact upon your personal records or relationship with the Queensland Police Service, The University of Queensland, or any other organisation or person. No information that personally identifies you will be held be researchers at the University of Queensland. You can feel confident in knowing that what you tell us remains confidential and will not be attributed to you in any way. Participation in this study should involve no physical or mental discomfort, and no nisks beyond those of everyday living. If, however, you should find any question to be invasive or offensive, you are free to omit answering that question.

If you have any questions or concerns, or would like to learn more about the study, please feel free to contact Dr Emma Antrobus from UQ at (07) 3346 9306 or e.antrobus@uq.edu.au.

The Bellberry Human Research Ethics Committee has reviewed and approved this study in accordance with the National Statement on Ethical Conduct in Human Research (2007) incorporating all updates. This Statement has been developed to protect the interests of people who agree to participate in human research studies. Should you wish to discuss the study or view a copy of the Complaint procedure with someone not directly involved, particularly in relation to matters concerning policies, information or complaints about the conduct of the study or your rights as a participant, you may contact the Committee chair, Bellberry Human Research Ethics Committee 08 8361 3222. You are of course, free to discuss your participation in this study with project staff (contactable on (07) 3365 9306).

Thank you very much for your feedback

Block 4

What is your unique identification number?

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(If you are unsure what this number is, please contact Inspector Ian Thompson)

Block 2

YOUR INTERACTIONS

This section asks you about how you would normally interact with people in your duties as a police officer.

There are no right or wrong answers, we are interested in your opinions and your honest responses would be greatly appreciated.

Please indicate how much you agree or disagree with the following statements.

	Strongly disagree						Strongly agree
I treat people fairly	0	0	0	0	0	0	0
l listen to what people have to say before making decisions	0	0	۲	0	0	0	0
I treat people with dignity and respect	0	0	0	0	0	0	0
I make decisions based on facts, not my personal opinions	0	0	0	٢	0	0	0
I treat people the same, regardless of who they are	0	0	0	0	0	0	0
I try to do what is best for people	0	0	0	0	0	0	0

Please indicate how much you agree or disagree with the following statements.

	Strongly disagree						Strongly agree
I know how to talk with people.	0	0	0	0	0	0	0
I have good communication skills.	0	0	0	0	0	0	
I feel confident when using my communication skills.	0		0		0		0
I am good at reading other people's emotions.	0	0	0	0	0	0	0
I know how to make someone comfortable.	0	0	0	0	0	0	0
I know how to resolve conflict between people.	0	0	0	0	0	0	0
I know how to use nonverbal cues to communicate my feelings to others.	0	0	0	0	0	0	0

Block 3

GENERAL PERCEPTIONS OF POLICE IN QUEENSLAND

In this section, we would like to hear about your general perceptions of police officers in Queensland. We are interested in your honest opinions.

In general, the police in Queensland ...

	Strongly disagree						Strongly agree
Make fair decisions	0	0	0	0	0	0	0
Listen to people before making decisions	0	0	0	0	0	0	0
Treat people with dignity and respect	0	0	0	Θ	0	Θ	0
Treat everyone equally	0	0	0	0	0	0	0
Provide a better service to richer people	0	0	0	0	0	0	0

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Please indicate how much you agree or disagree with the following statements. In my opinion:

	Strongly disagree						Strongly agree
People should do what the police tell them to do even if they disagree with their decisions	0			0	0	\odot	۲
The police have the same sense of right and wrong as the community	0	\odot	0	0	0	•	\odot
The police stand up for values that are important for people in the community	0	\odot		0	0	\odot	0
Respect for police is an important value for people to have	0	\odot	0		0	0	0
I strongly identify with the Queensland community	0	\odot	0			0	0
I strongly identify with the Queensland Police Service						0	0

On the whole, how confident are you in the ability of the police in QLD to:

	Strongly disagree					Strongly agree
Prevent crime	0	0	0	0	0	0
Respond quickly to appropriate calls from the public	0		0		\odot	0
Deal with incidents as they occur	0		0		\odot	
Solve crimes	0		0		\odot	0
Catch criminals	0		0		\odot	
Keep people safe	0		0		\odot	

In your experience, how likely do you think is it for people to ...

	Strongly disagree						Strongly agree
Call police to report a crime	0	0		0		0	0
Help police to find someone suspected of committing a crime by providing them with information	0	0	0		•	\odot	0
Report dangerous or suspicious activities to police	0			0	0	0	0
Willingly assist police if asked	•	0				•	

Block 5

POLICING IN QUEENSLAND

The following questions ask your opinions about what is important in policing in Queensland.

There are no right or wrong answers, we are interested in your opinions.

In your opinion, how much of a priority are the following when responding to a traffic offence:

	Strongly disagree						Strongly agree
Be respectful when dealing with the driver	0	0	0	0	0	0	0
Verbally acknowledge the driver's feelings	0	0	0		•	0	0
Explain the process for paying the ticket or going to court	0		0		0	•	•

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	Stay calm even if the driver yells at you		0			0	•	\odot	
	Let the driver tell his or her side of the story		0		0	0	0	\odot	
	Try to answer all the driver's questions	0	•			•	0	0	
	Explain to the driver why you stopped the car	0	0			0			

Please indicate how important you think the following are:

	Not at all important						Very important
Encourage the use of negotiation and conflict resolution	0		0	۲	0	0	0
Involve the community in crime prevention	0	0				0	0
Enforce the law fairly	0	0			0	0	
Increase public satisfaction with the police service	0	\odot		0		0	
Improve services to victims	0	\odot				0	0
	Not at all important						Very important
Provide a rapid response to emergency calls	0	\odot	0	0	0	0	•
Improve the investigations of crime	0	\odot		•	0	0	0
Reduce incidence of crime and violence	0	\odot		0	0	0	0
Reduce traffic accidents	0	0			0	0	0
Improve methods and strategies for catching criminals	•	•	0		0	0	0

Please indicate how much you agree or disagree with the following statements.

In my opinion:

	Strongly disagree						Strongly agree
Some victims of crime are more deserving of a good service than others	0	0		۲		0	0
It is a waste of time trying to help some members of the public	•	\odot		\odot	\odot		0
Some people do little to earn the respect of the police	•			0	0		0
If you let people vent their feelings first, you are more likely to get them to comply with your request	0	\odot	0		0	0	0
Treating angry members of the public with respect increases the community's confidence in the police service	0	\odot	\odot		\odot	\odot	0
Officers who are polite to criminal offenders are less likely to get hurt					0		

Block 6

ABOUT YOU

This section asks some things about your perspectives more generally. Please try to answer all questions as honestly as possible.

Please indicate how much you agree or disagree with how much the following statements apply to yourself and others.

	Strongly disagree				Strongly agree	
I basically feel that the world is a fair place.	0	0	0	0	0	
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6/3/2016 Qualifics Survey Software								
I feel that people get what they are entitled to have.		0		\odot	\odot			0
I feel that a person's efforts are noticed and rewarded.		0				\odot		\odot
I feel that people earn the rewards and punishments they get.		0		0	0			\odot
I feel that people who meet with misfortune have brought on themselves.	it	0		0	0			\odot
I feel that people get what they deserve.		0	0	0	\odot	\odot		\odot
I feel that rewards and punishments are fairly given.		•			\odot	\odot	0	\odot

Please indicate how much you agree or disagree with the following statements.

	Strongly disagree						Strongly agree
Other peoples' emotions don't affect me much.	0	0		0			0
After being with a person who is sad about something, I usually feel sad.	0	\odot	\odot		\odot	\odot	\odot
I can understand others' happiness when they does well at something.	•					\odot	
I get frightened when I watch characters in a good scary movie.		\odot				\odot	0
I get caught up in other people's feelings easily.	0	\odot			\odot	\odot	0
I find it hard to know when other people are frightened.	•	\odot	\odot			\odot	0
I don't become sad when I see other people crying.	•	\odot				\odot	0
	Strongly disagree						Strongly agree
Other people's feelings don't bother me at all.	0	\odot			\odot		0
When someone is feeling 'down' I can usually understand how they feel.	•		\odot		\odot	\odot	\odot
I can usually work out when other people are scared.	•	\odot				\odot	
I often become sad when watching sad things on TV or in films.		\odot				\odot	
I can often understand how people are feeling even before they tell me.	•				\odot	\odot	\odot
Seeing a person who has been angered has no effect on my feelings.	0		\odot	\odot	\odot	\odot	0
I can usually work out when people are cheerful.	•	\odot	\odot	\odot	\odot	\odot	
	Strongly disagree						Strongly agree
I tend to feel scared when I am with others who are afraid.	•	\odot				\odot	
I can usually realize quickly when a person is angry.	•	\odot					
I often get swept up in other people's feelings.	•	\odot				\odot	0
Other peoples' unhappiness doesn't make me feel anything.	•	\odot	\odot		\odot	\odot	•
I am not usually aware of other peoples' feelings.	•	\odot	\odot			\odot	0
I have trouble figuring out when others are happy.	•	\odot	\odot			\odot	0

Which of the following objects or statements do you have a positive or negative feeling towards?

Beside each object or statement, mark the point which represents the degree of your positive or negative feeling.

	Very negative						Very positive
Some groups of people are simply inferior to other groups.							0
In getting what you want, it is sometimes necessary to use force against other groups.		\odot	0	0	0	\odot	•

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	It's OK if some groups have more of a chance in life than others.	0	0	0	0	0	0	0
	To get ahead in life, it is sometimes necessary to step on other groups.	0	0	0	0	0	0	0
	If certain groups stayed in their place, we would have fewer problems.	0	0	0	Θ	0	0	0
	It's probably a good thing that certain groups are at the top and other groups are at the bottom.	0	0	0	0	0	0	0
		Very negative						Very positive
	Inferior groups should stay in their place.	0	0	0	0	0	0	0
	Sometimes other groups must be kept in their place.	0	0		0	0	0	
	It would be good if groups could be equal.		0	Θ	0		0	0
	Group equality should be our ideal.	0	0	0	0	G	0	0
	All groups should be given an equal chance in life.	0	0	0	0	0	0	0
	We should do what we can to equalize conditions for different groups.	0	0	0	0	0	0	
		Very negative						Very positive
	Increased social equality.	0	0		0	0	0	0
	We would have fewer problems if we treated people more equally.	0	0	9	0		0	0
	We should strive to make incomes as equal as possible.	0	0	0	0	0	0	0
	No one group should dominate in society.	0	0	0	0	0	0	0

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally:

	True	False
It is sometimes hard for me to go on with my work if I am not encouraged	0	0
I sometimes feel resentful when I don't get my way	0	0
On a few occasions, I have given up doing something because I thought too little of my ability	0	0
There have been times when I felt life rebelling against people in authority even thought I knew they were right	0	
No matter who I'm taking to, I'm always a good listener	0	0
	True	False
There have been occasions when I took advantage of someone	0	0
I'm always willing to admit it when I make a mistake	0	0
I sometimes try to get even rather than forgive and forget	0	0
I am always courteous, even to people who are disagreeable	0	0
I have never been irked when people express ideas very different from my own	0	0
26.	True	False
There have been times when I was quite jealous of the good fortune of others	0	0
I am sometimes irritated by people who ask favors of me	0	0
I have never deliberately said something that hurt someone's feelings		

Demographics

DEMOGRAPHICS

Finally, we'd like to know a little bit about who you are. These responses will not be used to identify you in any way.

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What year were you born?

What is your gender?

- Male
- Female

What is your highest educational achievement?

- Postgraduate Qualification
- University/College degree
- Trade/Technical certificate or diploma
- Completed senior high school (Year 12)
- Completed junior high school (Year 10)
- Primary school
- No schooling

Prior to entry into the Queensland Police Service, were you previously employed?

- Yes
- No

Describe your most recent previous occupation

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Appendix 2: Mentor FTO Survey

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Recruit Training

As a Field Training Officer, you perform an important role by building on the initial training that the recruits receive at the academy. Thank you.

We are conducting this study as part of our efforts to continually improve the training that recruits receive. Please respond to the following VERY BRIEF (6) questions so we can match up FTO ratings to recruit ratings. There are no right or wrong answers, we are interested in your honest opinions.

Please enter the Recruit Unique Identification Number you have been provided.

Please indicate how much you agree or disagree with the following statements.

In my opinion:

	Strongly disagree						Strongly agree
Some victims of crime are more deserving of a good service than others	0	0	0	0	0	0	0
It is a waste of time trying to help some members of the public	0	0	0	0	0	0	0
Some people do little to earn the respect of the police	0	$^{\circ}$	$^{\circ}$	$^{\circ}$	$^{\circ}$	$^{\circ}$	0
	Strongly disagree						Strongly agree
If you let people vent their feelings first, you are more likely to get them to comply with your request	0	0	0	0	0	0	0
Treating angry members of the public with respect increases the community's confidence in the police service	0	0	0	0	0	0	0
Officers who are polite to criminal offenders are less likely to get hurt	0	0	0	0	0	0	0

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Appendix 3: FTO Rating tool



Field Training Officer (FTO) Rating Tool Go to: https://uqissr.col.qualtrics.com/SE/?SID=SV_b4vLFXrn25H8uln OR http://bit.ly/FTOTool

Purpose

To evaluate First Year Constables' encounters with members of the public.

What are you being asked to do?

For the first eight (8) weeks of the First Year Constables' (FYCs) time in the field, we are asking all Field Training Officers (FTOs) to provide ratings of ALL encounters the FYC has with a member of the public as the **primary responder**. The ratings are designed to be quite quick and to be completed **immediately** following the encounter (before any verbal feedback is given to the FYC).

There are nine (9) brief questions you will be asked to respond to after each encounter.

1. Reference No.

This is a reference number to help to identify the FYC that is being rated, along with a number for the encounter. For instance, if it was FYC number 62's third encounter of the day, this reference number would be 62-003. This reference should be able to subsequently be linked to the BWC footage of the encounter.

Please also write this number on the top of the public survey with the date.

2. What kind of member of the public did the encounter primarily involve?

This question asks you to identify whether the encounter was with a witness to a crime/incident, an alleged suspect, an alleged victim, or some other kind of encounter (e.g., a motorist stopped for an RBT). Please try to select <u>one</u> option only.

3. What kind of public encounter was it primarily?

This question asks you to identify whether the encounter was related to *one* of the three main types of encounters we have identified that FYCs are involved in (street checks, traffic, or domestic violence), a general enquiry, or some other kind of encounter. Please try to select <u>one</u> option only.

4. Were there any other members of the public present at the encounter?

This question asks you to identify if there were any other members of the public who were present the encounter, and if so, how many. Please consider other members of the public who were involved in the encounter in some way, either those who were also involved in the discussion (these people should be given a separate rating and public survey), or were involved as witnesses to the encounter. A best guess of the number present is fine if there were many witnesses who were not actively involved in the encounter.



5. Were there any other police officers present at the encounter?

This rating tool is focused on encounters with the public where the FYC is the **primary** responder. For this question, however, please mark if there are any other officers (besides yourself) present at the encounter, and if so, how many.

6. To what extent did the FYC show respectful behaviour towards the member of the public?

This question asks you to rate how respectful and polite the FYC was towards the member of the public. Behaviours might include (but are not limited to) introducing themselves, thanking the member of the public for their time, utilizing positive body language etc. Please circle <u>one</u> of the numbers on the scale from 1 (FYC showed Complete Disrespect) to 7 (FYC showed Complete Respect).

7. To what extent did the FYC appear completely neutral in his/her decisions in this situation?

This question asks you to rate how neutral the FYC appeared during the interaction with the member of the public. In this instance, neutral means that the FYC was fair in making the decisions, didn't rely on personal opinions or biases, and made decisions based on consistently applied legal principles, policy, and the facts of the situation. Please circle <u>one</u> of the numbers on the scale from 1 (*Not at all*) to 7 (*To the greatest extent*).

8. To what extent did the FYC appear to listen to the input of the member of the public?

This question asks you to rate how much the FYC gave the member of the public the chance to express their views and how much they listened to these views before making any decisions about the situation. Please circle <u>one</u> of the numbers on the scale from 1 (FYC did not listen at all) to 7 (FYC listened to the greatest extent). If the member of the public chose not to offer any information or provide their viewpoint, please mark the circle "0" under "No information/viewpoints provided".

9. To what extent did the FYC demonstrate they were trying to do what was best for the member of the public (or the community)?

This question asks you to rate how much the FYC showed that they were truly concerned with the person's well-being, or were trying to do what was best for the person or the community, during the interaction. Please circle <u>one</u> of the numbers on the scale from 1 (*Not at all*) to 7 (*To the greatest extent*).

In addition to these ratings, you are being asked to provide ALL members of the public the FYC encounters as **primary responder** with a survey. On the top of each survey, there is a space to provide the reference number. This is the same number that is to be provided on the rating card, along with the date of the encounter. Please also inform the member of the public to think about the FYC when they are being asked about the specific officer in the encounter.

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[Format = Recruit/FYC number + encounter number]

- 2. What kind of member of the public did the encounter primarily involve? (please choose one)
 - O Witness O Victim

1. Reference No.

O Suspect O Other - Please specify: _____

3. What kind of public encounter was it primarily? (please choose one)

- O Street check O Domestic Violence
- O Traffic related O General enquiry from the public
- O Other Please specify:
- 4. Were there any other members of the public present at the encounter?

$^{\circ}$	No	O Yes – How many?	
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5. Were there any other police officers present at the encounter?

- O No O Yes How many? _____
- 6. How respectful was the FYC towards the member of the public?

FYC showed Complete Disrespect						FYC showed Complete Respect
1	2	3	4	5	6	7

7. To what extent did the FYC appear completely neutral in his/her decisions in this situation?

Not at all						To the greatest extent
1	2	3	4	5	6	7

8. To what extent did the FYC appear to listen to the input of the member of the public?

No information/ viewpoints provided	FYC did not listen at all					FYC the grea	listened to atest extent
0	1	2	3	4	5	6	7

To what extent did the FYC demonstrate they were trying to do what was best for the member of the public (or the community)?

Not at all						To the greatest
1	2	3	4	5	6	7

Appendix 4: Table of results from analysis of FYC averages

Each recruit has been given an average score for all their encounters on each of these items

paired *t*-tests

Variable	Exp. mean	Ctrl. mean	t	df	р	d
How respectful was the FYC towards the member of the public? (overall)	6.73	6.66	-0.708	27	0.485	0.1695
To what extent did the FYC appear completely neutral in his/her decisions in this situation? (overall)	6.63	6.61	-0.189	27	0.852	0.0475
To what extent did the FYC appear to listen to the input of the member of the public? (overall)	6.58	6.58	-0.002	27	0.998	-0.0006
To what extent did the FYC demonstrate they were trying to do what was best for the member of the public (or the community)? (overall)	6.65	6.59	-0.42	27	0.678	0.1172

Appendix 5: Table of results from independent group *t*-tests of all recruit interactions

Variable	Exp. mean	Ctrl. mean	t	df	р	d
How respectful was the FYC towards the member of the public? (overall)	6.74	6.56	-5.241	1514	0	0.2694
To what extent did the FYC appear completely neutral in his/her decisions in this situation? (overall)	6.66	6.51	-4.1	1513	0	0.2061
To what extent did the FYC appear to listen to the input of the member of the public? (overall)	6.59	6.43	-3.53	1389	0	0.1957
To what extent did the FYC demonstrate they were trying to do what was best for the member of the public (or the community)? (overall)	6.68	6.51	-4.661	1512	0	0.2392

Standard *t*-tests comparing ALL ratings for experimental to ALL ratings for control recruit