

SHORT CONTRIBUTION

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Enhancing SARA: a new approach in an increasingly complex world

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Abstract

The research note describes how an enhancement to the SARA (Scan, Analyse, Respond and Assess) problem-solving methodology has been developed by Transport for London for use in dealing with crime and antisocial behaviour, road danger reduction and reliability problems on the transport system in the Capital. The revised methodology highlights the importance of prioritisation, effective allocation of intervention resources and more systematic learning from evaluation.

Keywords: Problem solving, Transport policing, Problem oriented policing

Main text

Introduction

Problem oriented policing (POP), commonly referred to as problem-solving in the UK, was first described by Goldstein (1979, 1990) and operationalised by Eck and Spelman (1987) using the SARA model. SARA is the acronym for Scanning, Analysis, Response and Assessment. It is essentially a rational method to systematically identify and analyse problems, develop specific responses to individual problems and subsequently assess whether the response has been successful (Weisburd et al. 2008).

A number of police agencies around the world use this approach, although its implementation has been patchy, has often not been sustained and is particularly vulnerable to changes in the commitment of senior staff and lack of organisational support (Scott and Kirby 2012). This short contribution outlines the way in which SARA has been used and further developed by Transport for London (TfL, the strategic transport authority for London) and its policing partners—the Metropolitan Police Service, British Transport Police and City of London Police. Led by TfL, they have been using POP techniques to deal with crime and disorder issues on the network, with some success. TfL's problem-solving projects have been shortlisted on three occasions for the Goldstein Award,

an international award that recognises excellence in POP initiatives, winning twice in 2006 and 2011 (see Goldstein Award Winners 1993–2010).

Crime levels on the transport system are derived from a regular and consistent data extract from the Metropolitan Police Service and British Transport Police crime recording systems. In 2006, crime levels on the bus network were causing concern. This was largely driven by a sudden rise in youth crime with a 72 per cent increase from 2005 to 2006: The level rose from around 290 crimes involving one or more suspects aged under 16 years per month in 2005 to around 500 crimes per month in 2006.

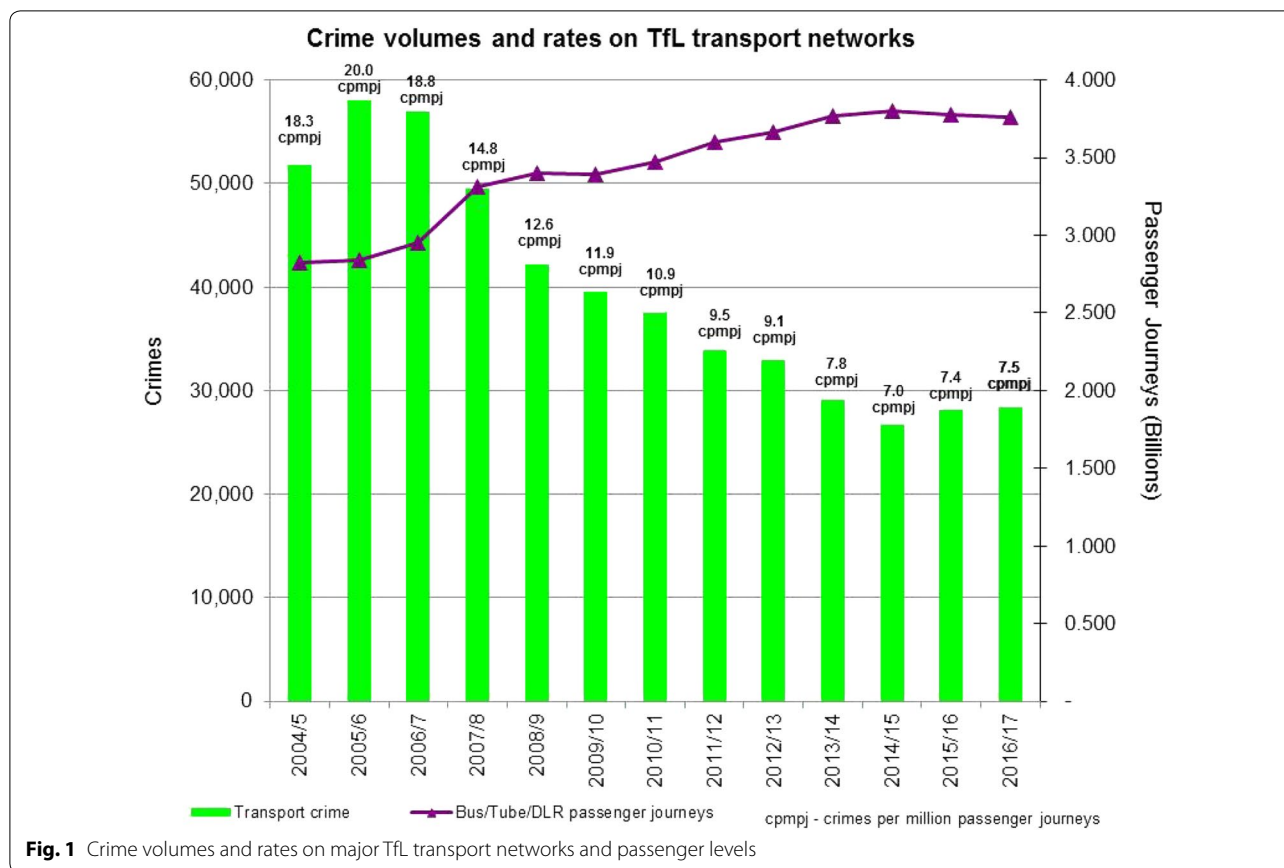
Fear of crime was also an issue and there were increasing public and political demands for action. In response TfL, with its policing partners, worked to embed a more structured and systematic approach to problem-solving, allowing them to better identify, manage and evaluate their activities. Since then crime has more than halved on the network (almost 30,000 fewer crimes each year) despite significant increases in passenger journeys (Fig. 1). This made a significant contribution to the reduction in crime from 20 crimes per million passenger journeys in 2005/6 to 7.5 in 2016/17.

Although crime has been falling generally over the last decade, the reduction on London's public transport network has been comparatively greater than that seen overall in London and in England and Wales (indexed figures can be seen in Fig. 2). The reductions on public

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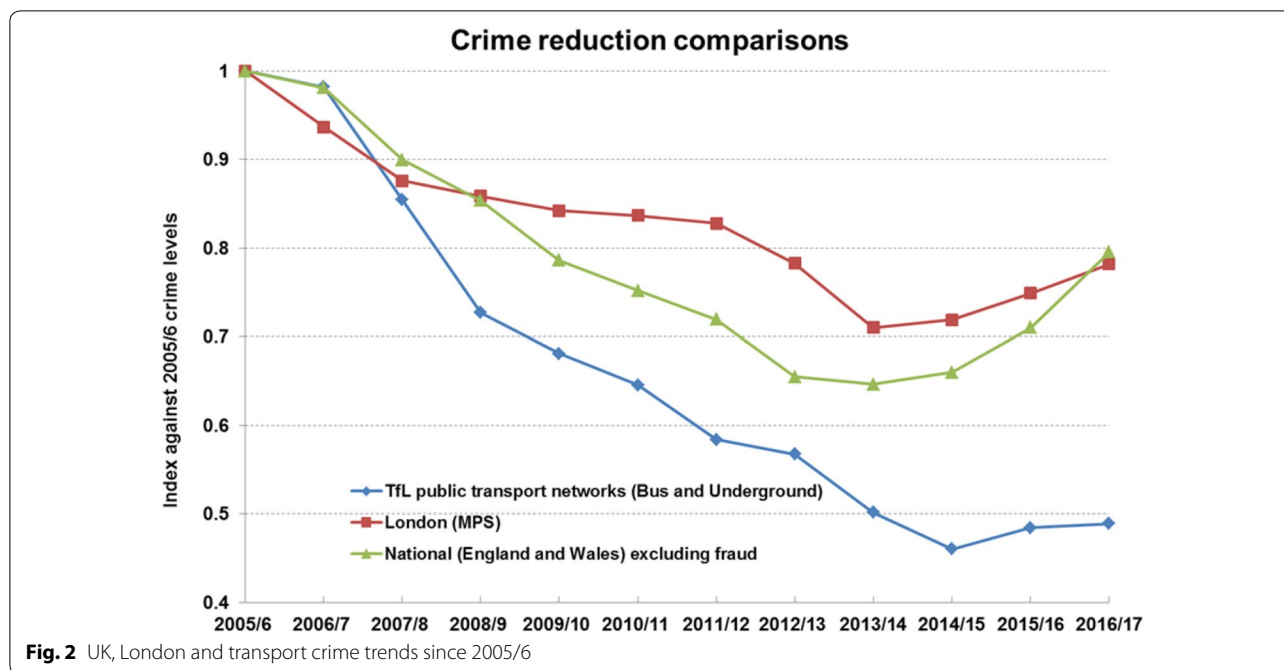
transport are even more impressive given that there are very few transport-related burglary and vehicle crimes which have been primary drivers of the overall reductions seen in London and England and Wales. TfL attributes this success largely to its problem-solving approach and the implementation of a problem-solving framework and supporting processes.

A need for change

TfL remains fully committed to problem-solving and processes are embedded within its transport policing, enforcement and compliance activities. However, it has become apparent that its approach needs to develop further in response to a number of emerging issues:

- broadening of SARA beyond a predominant crime focus to address road danger reduction and road reliability problems;

- increasing strategic complexity in the community safety and policing arena for example, the increased focus on safeguarding and vulnerability;
- the increasing pace of both social and technological change, for example, sexual crimes such as ‘upskirting’ and ‘airdropping of indecent images’ (see <http://www.independent.co.uk/news/uk/crime/london-tube-sexual-assault-underground-transportation-harassment-a8080756.html>);
- financial challenges and resource constraints yet growing demands for policing and enforcement action to deal with issues;
- greater focus on a range of non-enforcement interventions as part of problem solving responses;
- a small upturn in some crime types including passenger aggression and low-level violence when the network is at peak capacity;
- increasing focus on evidence-led policing and enforcement, and;



- some evidence of cultural fatigue among practitioners with processes which indicated a refresh of the approach might be timely.

Implications

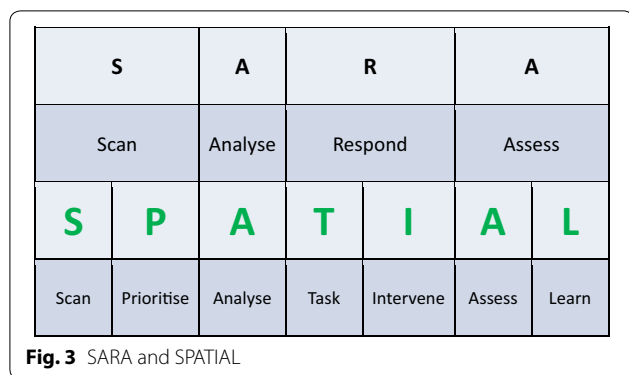
In response, TfL undertook a review of how SARA and its problem-solving activities are being delivered and considered academic reviews and alternative models such as the 5I’s as developed by Ekblom (2002) and those assessed by Sidebottom and Tilley (2011). This review resulted in a decision to continue with a SARA-style approach because of its alignment with existing processes and the practitioner base that had already been established around SARA. This has led to a refresh of TfL’s strategic approach to managing problem-solving which builds on SARA and aims to highlight the importance of prioritisation, effective allocation of intervention resources and capturing the learning from problem-solving activities at a strategic and tactical level. Whilst these

stages are implicit within the SARA approach, it was felt that a more explicit recognition of their importance as component parts of the process would enhance overall problem-solving efforts undertaken by TfL and its policing partners. The revised approach, which recognises these important additional steps in the problem-solving process, has been given the acronym SPATIAL—Scan, Prioritise, Analyse, Task, Intervene, Assess and Learn as defined in Table 1 below:

SPATIAL adapts the SARA approach to address a number of emerging common issues affecting policing and enforcement agencies over recent years. The financial challenges now facing many organisations mean that limited budgets and constrained resources are inadequate to be able to solve all problems identified. The additional steps in the SPATIAL process help to ensure that there is (a) proper consideration and prioritisation of identified ‘problems’ (b) effective identification and allocation of resources to deal with the problem,

Table 1 Defining SPATIAL

Scan	Identify existing and emerging issues and begin to develop define problem
Prioritise	Assess problems against agreed criteria and against other priorities
Analyse	Collect and analyse data to understand and define the problem and identify points for intervention
Task	Identify appropriate responses to problem and allocate resources to deliver agreed intervention(s)
Intervene	Implement planned interventions in an effective and timely manner (categorised as enforcement, engagement/education and environmental/engineering)
Assess	Evaluate the impact of interventions on the problem using evidence led techniques as appropriate
Learn	Capture the learning from the assessment stage and apply it to other problems with similar characteristics (building a ‘what works’ library and menu of interventions)



considering the impact on other priorities and (c) capture of learning from the assessment of problem-solving efforts so that evidence of what works (including an assessment of process, cost, implementation and impact) can be incorporated in the development of problem-solving action and response plans where appropriate. The relationship between SARA and SPATIAL is shown in Fig. 3 below:

In overall terms SPATIAL helps to ensure that TfL and policing partners’ problem-solving activities are developed, coordinated and managed in a more structured way. Within TfL problem-solving is implemented at three broad levels—Strategic, Tactical and Operational. Where problems and activities sit within these broad levels depends on the timescale, geographic spread, level of harm and profile. These can change over time. Operational activities continue to be driven by a problem-solving process based primarily on SARA as they do not demand the same level of resource prioritisation and scale of evaluation, with a SPATIAL approach applied at a strategic level. In reality a number of tactical/operational problem-oriented policing activities will form a subsidiary part of strategic problem-solving plans. Table 2 provides examples of problems at these three levels.

The processes supporting delivery utilise existing well established practices used by TfL and its partners.

These include Transtat (the joint TfL/MPS version of the ‘CompStat’ performance management process for transport policing), a strategic tasking meeting (where the ‘P’ in SPATIAL is particularly explored) and an Operations Hub which provides deployment oversight and command and control services for TfL’s on-street resources. Of course, in reality these processes are not always sequential. In many cases there will be feedback loops to allow refocusing of the problem definition and re-assessment of problem-solving plans and interventions.

For strategic and tactical level problems, the SPATIAL framework provides senior officers with greater oversight of problem-solving activity at all stages of the problem-solving process. It helps to ensure that TfL and transport policing resources are focussed on the right priorities, that the resource allocation is appropriate across identified priorities and that there is oversight of the problem-solving approaches being adopted, progress against plans and delivery of agreed outcomes.

Conclusion

Although these changes are in the early stages of implementation, it is already clear that they provide the much needed focus around areas such as strategic prioritisation and allocation of TfL, police and other partner resources (including officers and other interventions such as marketing, communications and environmental changes). The new approach also helps to ensure that any lessons learned from the assessment are captured and used to inform evidence-based interventions for similar problems through the use of a bespoke evaluation framework (adaptation of the Maryland scientific methods scale, see Sherman et al. 1998) and the implementation of an intranet based library. The adapted approach also resonates with practitioners because it builds on the well-established SARA process but brings additional focus to prioritising issues and optimising resources. More work is required to assess the medium and longer term implications and benefits derived from the new process and this will be undertaken as it becomes more mature.

Table 2 Examples of strategic, tactical and operational problems

	Problem characteristics	Example
Strategic	City-wide and long term	Increased city wide youth crime and disorder related to the introduction of free travel
Tactical	Sub-regional and medium term	Etching of bus windows in South East London
Operational	Localised and short term	Road safety issues at a specific junction

Authors' contributions

The article was co-authored by the two named authors. SB developed the original concept and developed the methodology and MM helped refine the ideas for practical implementation and provided additional content to the document. Both authors read and approved the final manuscript.

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Acknowledgements

Not applicable.

Consent for publication

Not applicable.

Ethical approval and consent to participate

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Availability of data and materials

Not applicable.

Funding

Not applicable.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Received: 18 September 2017 Accepted: 19 February 2018

Published online: 01 March 2018

References

- Eck, J., & Spelman, W. (1987). *Problem-solving: problem-oriented policing in newport news*. Washington, D.C.: Police Executive Research Forum. <https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=111964>.
- Ekblom, P. (2002). From the source to the mainstream is uphill: The challenge of transferring knowledge of crime prevention through replication, innovation 5 design against crime paper the 5Is framework and anticipation. In N. Tilley (Ed.), *Analysis for crime prevention, crime prevention studies* (Vol. 13, pp. 131–203).
- Goldstein, H. (1979). *Improving Policing: A Problem-Oriented Approach*. Univ. of Wisconsin Legal Studies Research Paper No. 1336. pp. 236–258. SSRN: <https://ssrn.com/abstract=2537955>. Accessed 21 Jan 2018.
- Goldstein, H. (1990). *Problem-oriented policing create space independent publishing platform*. ISBN-10: 1514809486.
- Goldstein Award Winners (1993–2010), Center for Problem-Oriented Policing. <http://www.popcenter.org/library/awards/goldstein/>. Accessed 21 Jan 2018.
- Scott, M. S., & Kirby, S. (2012). *Implementing POP: leading, structuring and managing a problem-oriented police agency*. Washington, DC: U.S. Department of Justice Office of Community Oriented Policing Services.
- Sidebottom, A., & Tilley, N. (2011). Improving problem-oriented policing: the need for a new model. *Crime Prevention and Community Safety*, 13(2), 79–101.
- Sherman, L., Gottfredson, D., MacKenzie D., Eck, J., Reuter, P. & Bushway, S. (1988). *Preventing Crime: What Works, What Doesn't, What's Promising*. National Institute of Justice Research Brief. <https://www.ncjrs.gov/pdffiles/171676.pdf>. Accessed 14 Dec 2017.
- Weisburd, D., Telep, C.W., Hinkle, J. C., & Eck, J. E. (2008). *The effects of problem oriented policing on crime and disorder*. https://www.campbellcollaboration.org/media/k2/attachments/1045_R.pdf. Accessed 21 Jan 2018.

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