

What Makes an Outstanding Signaller?

Laura Hedley, Senior Occupational Psychologist at the OPC and a Rail Operations Director discuss the key skills required to be an excellent Signaller and some of the pitfalls to avoid



Over the years, psychologists at the Occupational Psychology Centre (OPC) have worked closely with many Signallers and control room operatives from around the world to understand the intricacies of their roles and identify the skills and behaviours essential in an outstanding Signaller. Recently, the OPC had the opportunity to interview an industry expert, an Operations Director with over two decades of signalling experience. Together, they share some of the core attributes and essential skills required for this pivotal, safety-critical role.

'Being a Signaller is more than just a job; it's a crucial role at the heart of rail operations. Signallers are the gatekeepers and custodians of safety for their track sections' said our industry expert.

'Depending on their level, Signallers manage extensive responsibilities and navigate fluid, challenging situations

daily. They ensure the safety of everyone passing through their section of the track—train drivers, passengers, and engineers alike. They control the safe and efficient movement of trains, regulating them and keeping them apart while holding the tension of getting them to their destination on time for paying customers.'

So, what are some of the key skills of a high-performing Signaller?

Situational awareness

Laura Hedley said: 'Situational awareness is crucial for any Signaller regardless of their level or signal post, whether that's a busy signalling centre with up-to-date technology, or a quieter, single person location. It means 'knowing what's going on all around you', retaining key information about train schedules or essential maintenance work and focusing on the details that regulate train movements through a Signaller's section. However, it's also about a higher

cognitive processing ability, using situational information to decide how to act. In essence, it's central to effective decision-making.'

The Operations Director added: 'An outstanding Signaller won't panic or flap! They remain composed in the face of unexpected challenges, or when under pressure. Their situational awareness and comprehensive understanding of others' roles helps their decision-making. A quiet confidence and familiarity of what's 'happening on the ground' in their area of control, enables them to make the right decisions to keep passengers and colleagues safe, and trains running smoothly.'

Attention to detail and vigilance

Attention to detail and vigilance are key Non-Technical Skills (NTS) for Signallers, tied closely to situational awareness. Laura said: 'As Psychologists, we're interested in safety behaviours and we know the key behavioural markers for attention to detail

‘Despite the pressure, there's a sense of satisfaction knowing that your work directly contributes to the safety of passengers and the smooth running of the railway’

A Signaller

and vigilance. Signallers must be focused on details, identify the essentials and the unnecessary, while being systematic in their approach. They'll care about accuracy and precision, recognising the importance of working at a steady pace. They rigorously and habitually check information, often more than once, without relying on past experience or assumptions. Despite time pressures, they consistently verify details and maintain precision in their work.'

Our industry expert added: 'A high-performing Signaller remains vigilant in their signal box and workstation, always focused on the train schedule and fully aware of all the train movements running through their section. A passionate Signaller will be watchful and ready for trains about to enter or leave their section as well. They meticulously review and cross-check information and paperwork for line blockages to ensure safe access for trackworker colleagues. By consistently demonstrating vigilance and thoroughness, Signallers uphold safety standards and maintain the smooth operation of the network.'

Risk anticipation and time focus

'The NTS of risk anticipation is paramount for Signallers, ensuring safety on the railway. It involves actively managing known

‘I enjoy figuring out and problem-solving situations when something happens.’

A Signaller

hazards and emerging risks to reduce the likelihood of a safety incident. Starting at the beginning of each shift and continuing throughout the day, Signallers must remain vigilant to various risks, covering work-related, environmental, and/or personal factors. OPC Psychologists, having undertaken hundreds of Post-Incident Assessments (PIA) with employees who have had safety incidents. They have observed that incidents often result from multiple subtle risks accumulating over time, rather than a single factor. Therefore, Signallers must be adept at recognising and mitigating these potential hazards to maintain a safe environment' said Laura.

'Some top Signallers in my team prioritise punctuality. They're never tardy, their time keeping is exemplary and that isn't just running trains to time! They arrive at their post un-flustered and organised enabling them to complete up-front risk assessments – either mentally or as part of a written handover before the shift starts. It also reflects in their critical time-focus of train movements, communications with drivers or track engineers – particularly when the pressure is mounting. They're unhurried in their paperwork. They demonstrate accuracy and discipline that inspires confidence in colleagues and managers alike' added the Operations Director

What about in a quieter signalling centre?

'Activity levels vary, with some signal centres being bustling hubs while others are quieter. Newly qualified Signallers often start in a quieter environment where their challenge can be to remain

vigilant during slower periods. However, excellent performers take the opportunity to conduct additional checks and ensure line blockage records are accurate and up to date. Newly qualified individuals may have the opportunity to review their training and refresh their knowledge of operating procedures and emergency protocols, ensuring they're well prepared for any potential issues. Their commitment to personal development prepares them for busier roles and a potential promotion' said our industry expert.

Communication

During an incident such as trespassing or track faults, effective communication skills are essential. Signallers must communicate effectively with drivers, track teams, and/or the Control centre, conveying crucial information clearly and concisely. Efficient train operations rely on Signallers gathering critical information and relaying it to Control for action, whether that's dispatching an engineering team to fix a fault or summoning appropriate response teams to deal with a trespasser. Effective communication is an essential NTS for Signallers especially in the event of an unforeseen problem.

Laura shared several key behaviour tips on good communication skills:

- Stick to safety protocols and procedures for communications.
- It can be helpful to prepare communications in advance.
- Be an active listener. Pay attention and provide feedback when necessary.
- Seek clarity and confirmation to avoid misunderstandings and agree actions.
- Be clear and concise, avoid unnecessary details.
- Accuracy is key. Verify information before relaying it.
- Communicate promptly to help decision-making and action.
- Be professional by maintaining a respectful demeanour and speaking clearly.





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Teamworking

In a recent Post-Incident Assessment (PIA) with a Signaller employed by an overseas rail operator an OPC Psychologist identified negative interpersonal working relationships as a key concern. Laura said: ‘Strong team-working and interpersonal skills are crucial alongside communications. Weak or fractious team relationships can’t hinder the sharing of vital safety-critical details. Signallers need both an assertive yet approachable manner to encourage open communication. They also need adaptability working alongside different roles and people. Other employees can’t be hesitant or afraid to talk to a Signaller. Conflict, aggression or disrespect can break down trust, cooperation and communication between team members, potentially leading to a safety incident and undermining the overall safety culture for that section.’

When things go wrong?

The Operations Director said: ‘We’re all human. We all make mistakes. In a busy signalling centre, when the pressure mounts a Signaller must stay on top of train movements, planned maintenance, and colleagues accessing the track. If unplanned incidents such as a signal fault or a trespasser on the line happen, then the pressure of juggling all those tasks can mean something has to give. A high performing Signaller will recognise they can no longer

Weak or fractious team relationships can’t hinder the sharing of vital safety-critical details’

manage their workload, remain calm, and take a ‘pause’. They’ll use key NTS like risk anticipation, prioritisation and decision-making to review and prioritise the train plan, re-schedule planned maintenance and associated line blocks, so the problem can be fixed. Then they’ll communicate with Control to discuss and agree a plan. An experienced Signaller will also know when their workload is at an intolerable level and there’s a risk of something going seriously wrong. They’ll be confident enough to escalate their concerns and ask for support from either their line manager or Control to prevent the risk of an incident.’

What about training and development?

Signallers undergo extensive initial training. Some OPC rail clients also use simulators to practice key tasks and the application of rules and regulations under an assessor’s guidance before starting in a live signal position. This really helps assessors and line managers sign off a trainee as ‘fit to perform the role’ as well as equip trainees and grow their confidence.

The Operations Director added: ‘To support new Signallers, we also conduct cross-functional simulations and table-top exercises that really enhance team-working and interpersonal skills. Although Signallers may need to phone an adjacent Signaller along the track, they may never actually meet face-to-face. These exercises really help build relationships, provide insight into others’ roles, develop effective communications and remove some of the barriers that stop people asking key safety-critical questions – thus helping to improve overall safety culture.’

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What can the OPC offer?

An outstanding Signaller is likely to have a mix of both experience and natural aptitude. Years on-the-job may have exposed them to many different daily pressures and challenges to develop their skills. However, natural abilities and key NTS play an important role in their make-up. OPC Assessment has a range of innovative assessment tools that can help identify and evaluate key Signaller attributes.

Some of these include: The Risk and Time Focus Questionnaire (RTQ) that profiles a candidate’s behaviour and attitude towards risk anticipation, including their consideration of time. The Visual Search Exercise (VSE) is an innovative test that identifies individuals who have the ability to focus and respond to numerous things simultaneously while remaining situationally aware.

The Safe Personality Questionnaire (SAFEPO) which profiles four personality factors; Cautiousness, Conscientiousness, Resilience and Rules Focus that are linked to safe behaviours in the rail industry.

The OPC provide a range of tailored NTS training programmes to help employees and managers to harness the power of NTS critical in a Signaller’s role. These have been received by Signallers with considerable praise. OPC Psychologists also undertake PIAs with Signallers who have had safety incidents for which they were wholly or partly responsible. The aim is to help uncover the human factors behind a safety incident, along with development plans to support a safe return to work.

In addition, the OPC can provide training and development through bespoke cross-functional simulation exercises to enhance operational performance as well as review emergency procedures.

Get in touch with the friendly OPC team if you think they can help you identify and develop outstanding Signallers. **RP**



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