

The state of supervisory competencies

A frank look at supervisory
capabilities in South African
mining and manufacturing



1 | SETTING THE SCENE



Since 2012 OIM has been working with companies on how to increase efficiencies through the supervisory level. What started as a client request on a small mine, has developed into a robust methodology that has been successfully implemented within mining, manufacturing and financial services.

The effective execution of any business plan heavily relies on the daily delivery of the supervisor and his/her team. Unfortunately in many cases our supervisors struggle to achieve the required results. The traditional method of sending them on ever-more training courses is not delivering the desired outcomes, leaving everyone frustrated.

One of the challenges faced within this level is the legacy issue of supervisors appointed more than twenty years ago and who struggle with basic numeracy and literacy. The other big concern is the appointment of individuals for roles they are not suited for. A great artisan does not necessarily equate to a good supervisor. They may be technically proficient, but don't have the competencies and capabilities required at this level. In many cases supervisors simply "don't know what they don't know".

For the past six years OIM has worked with about 750 supervisors and seen the bottomline impact of increasing their effectiveness. The integration of competencies and theory through on-the-floor coaching clearly shows how performance can be lifted. Sustainability is created through the involvement of direct managers, fostering a coaching culture and scheduled quality checks.

This whitepaper will provide a picture of the current state and limitation of supervisors within South Africa, but will also show that when development is addressed correctly, it can have a huge effect on operational results.



2 | WHAT WE FOUND: THE LEVEL OF SUPERVISORY EFFECTIVENESS



OIM has conducted competency and operational effectiveness assessments on a few hundred supervisors to determine to what extent they are playing their role as the daily drivers of sustainable productivity.

The results confirm the skills-issue in this space: Supervisors lack the minimum inherent capability required for their key performance areas.

Three types of measurements were done



1. Competency assessments



2. Activity analysis



3. Role assessments

Sample size – About 750 supervisors were submitted to the assessments

Industry – Mostly mining and manufacturing, with a small percentage in financial services

Period – Assessments took place over six years, between 2012 and 2018

A summary of the baseline-assessment results are depicted on the next few pages.



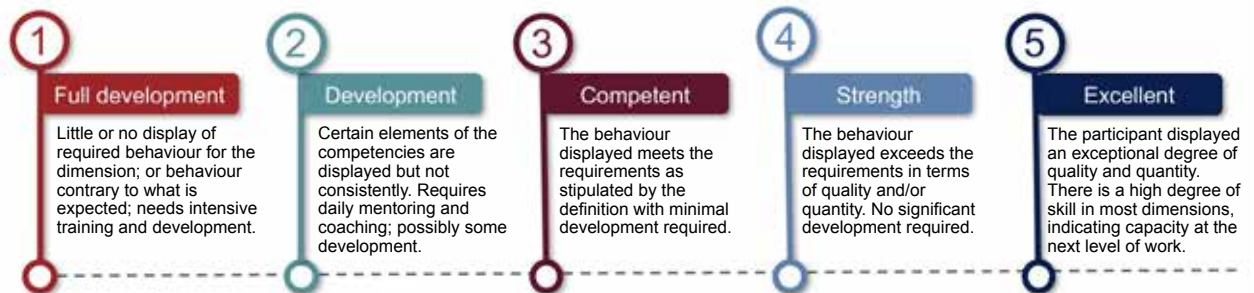


2.1 Competency assessments

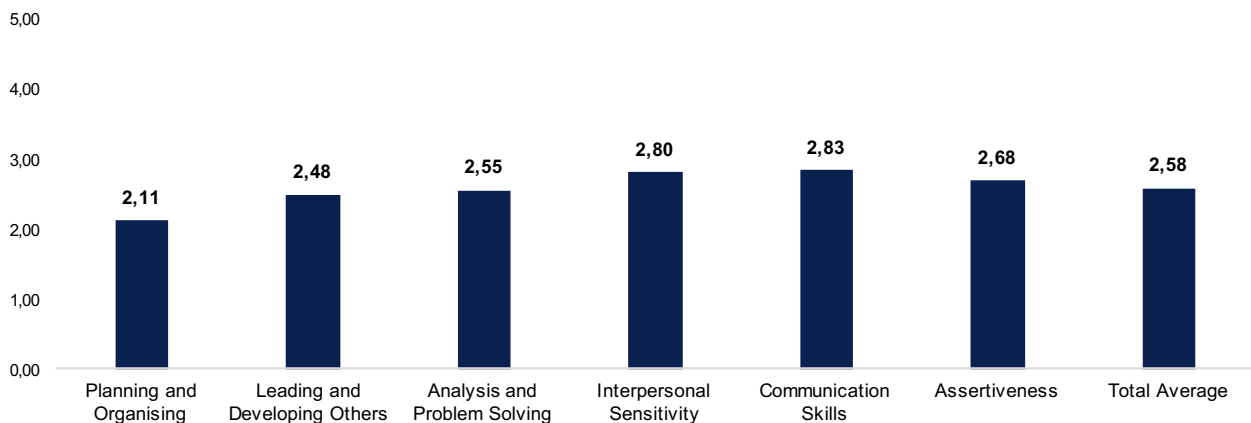
How do supervisors perform against their required competencies?

How to read the results

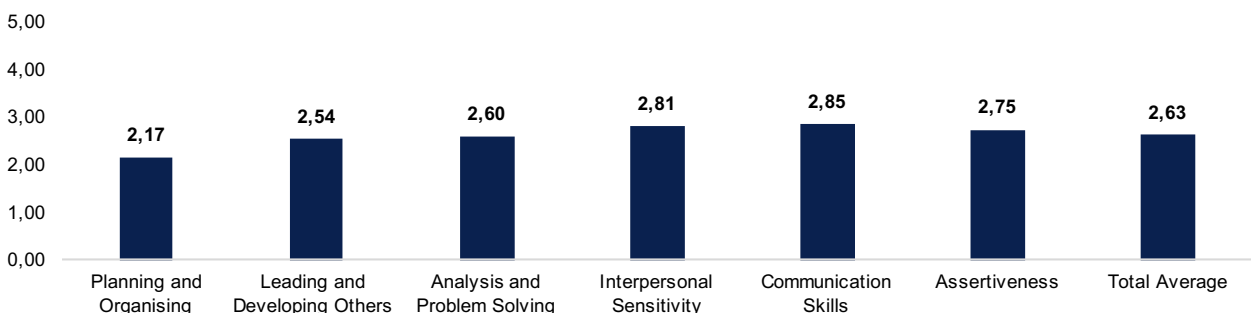
- Six key competencies were identified as essential to the successful functioning of a supervisor
- Assessments were done via one-on-one role play and in-basket exercises
- Experienced industrial psychologists scored supervisors on a 5-point scale
- A score of 3 indicates that the supervisor meets the minimum requirements as stipulated by the definition of the competency



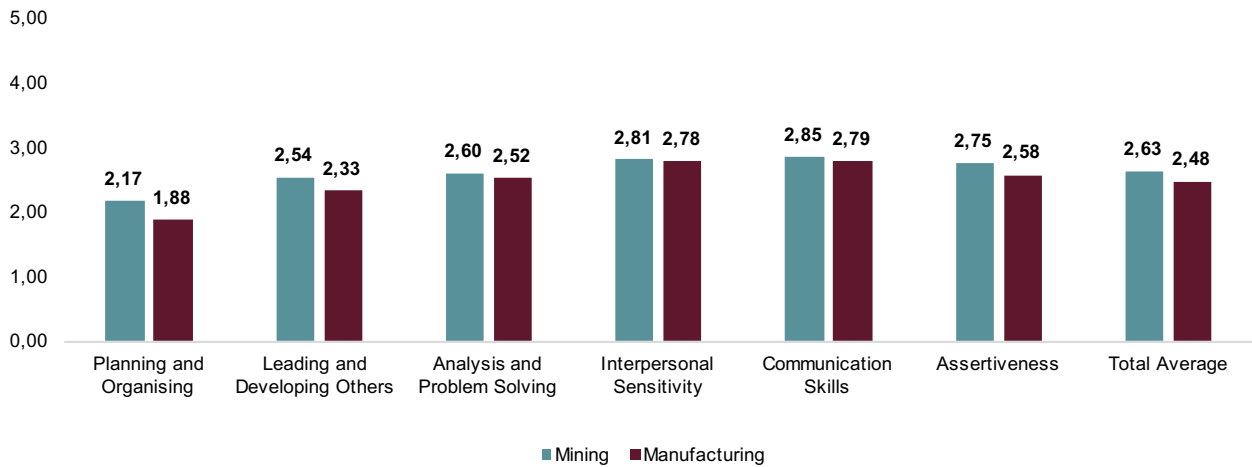
Overall average score of all industries: 2,58



Mining: Average score of 2,63



The performance of mining versus manufacturing



The results clearly show that the competencies of supervisors in all three industries are below the minimum required level

Glossary of definitions

- **Planning and Organising** – The ability to establish a course of action for self and/or others and the efficient monitoring and control of work in order to ensure the implementation of organisational goals
- **Leading and Developing Others** – The ability to lead, motivate and empower others to reach organisational goals and to inspire others to work towards a desired future state
- **Analysis and Problem Solving** – The ability to evaluate information in a systematic manner (breaking it down into its component parts), identify causal relationships, carefully consider a wide range of possibilities and to arrive at sound conclusions/decisions
- **Interpersonal Sensitivity** – The ability to demonstrate an awareness of how others feel and to show empathy for the needs and feelings of others; thus interacting with others in a sensitive and effective way in order to foster collaboration
- **Communication** – Oral Communication: The ability to express ideas effectively in individual or group situations (including non-verbal communication), adjusting language or terminology to the characteristics and needs of the audience
Written Communication: Writes in a clear and concise manner, using appropriate grammar, style and language for the reader
- **Assertiveness** – The ability to stand up for oneself, to express honest feelings comfortably and to deal with potentially difficult situations without undue anxiety; This includes the ability to identify and handle conflict in a sensible, fair and efficient manner

2.2 Activity analysis

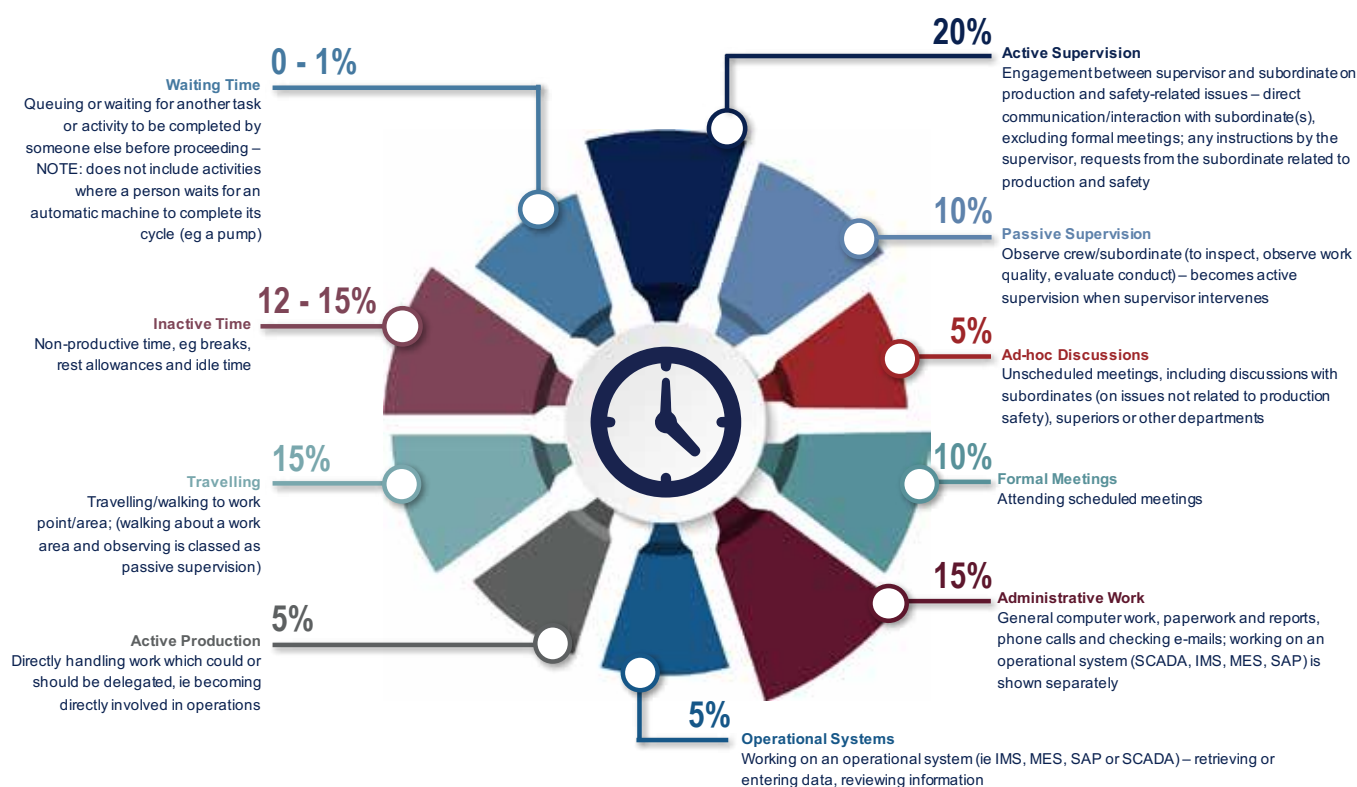


Time is money – what are supervisors spending their time on versus the ideal activity breakdown?

How to read the results

- Supervisors were analysed based on how they spent their time – depicted as a percentage of time devoted to daily activities
- The figure below shows the ideal activity breakdown for a supervisor, which was then compared to the results obtained from OIM's activity analyses
- Experienced engineers (industrial, mechanical and chemical) scored supervisors after several workplace reviews
- Prior to these observations, algorithms were run to determine the most accurate view over a given period
- The results apply almost exclusively to the mining industry
- This includes, but is not limited to, production supervisors in processing plants and mines, engineering supervisors in processing plants and mine and supervisors in support services

The ideal activity breakdown



Summary of overall results per business area

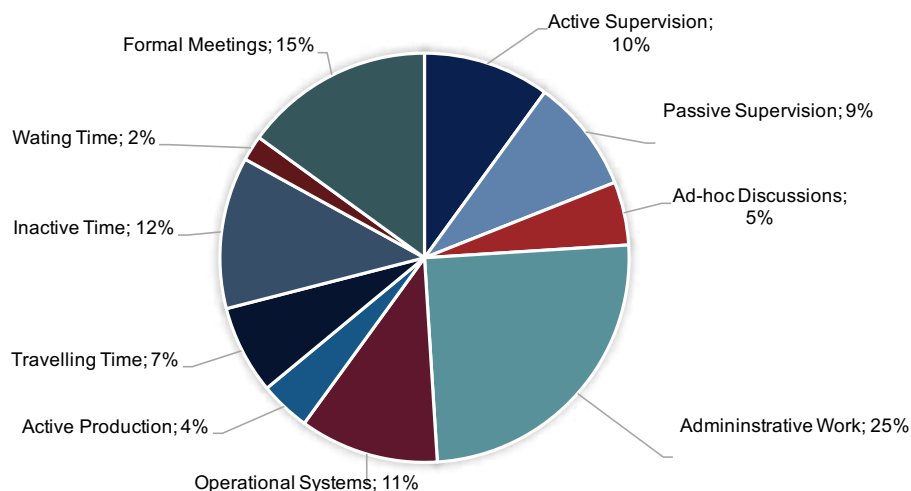
Activity Description	Ideal Activity Breakdown	Engineering Supervisors	Mining Production Supervisors	Processing Plant Production Supervisors	Support Services Supervisors
Active Supervision	20%	10%	15%	11%	3%
Passive Supervision	10%	9%	17%	17%	4%
Ad-hoc Discussions	5%	5%	5%	8%	11%
Administrative Work	15%	25%	12%	11%	29%
Operational Systems	5%	11%	0%	5%	6%
Active Production	5%	4%	7%	6%	1%
Travelling Time	15%	7%	19%	17%	10%
Inactive Time	12-15%	12%	18%	14%	19%
Waiting Time	0-1%	2%	2%	2%	4%
Formal Meetings	10%	15%	5%	9%	13%

Looking at the results in general,
the main concern is the lack of active supervision
due to a larger focus on a variety of factors in the
respective divisions



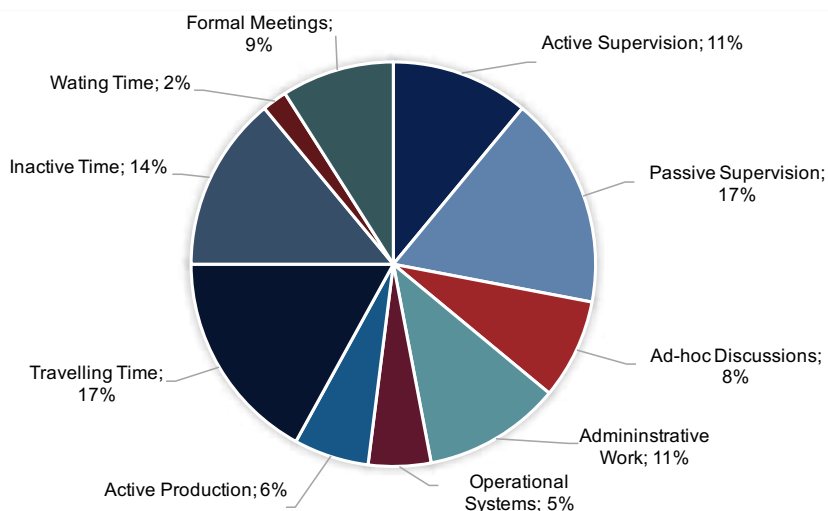
Engineering

Supervision in general is under pressure; time spent on both active and passive supervision amounts to 19%, while the ideal breakdown is a total of 30%. This can be ascribed to a major focus on administrative work, along with operational systems and formal meetings.



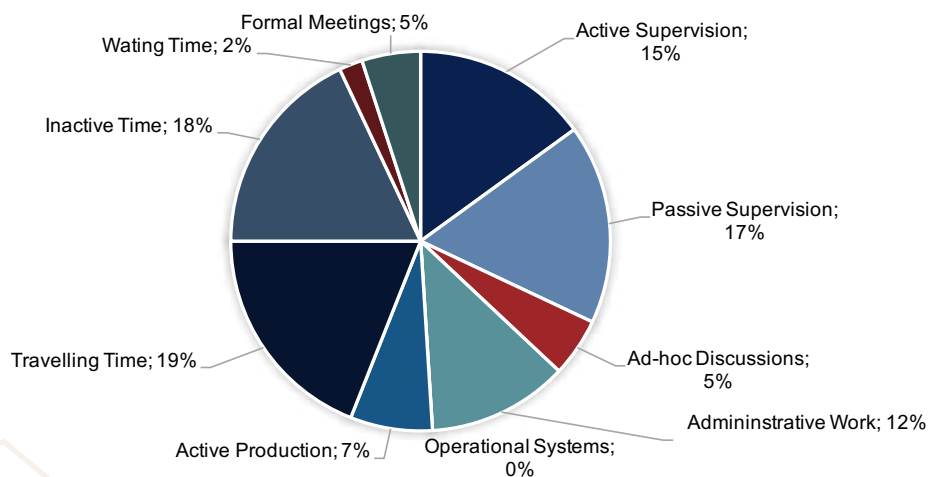
Plant Production

Active supervision is again below the expected time, but the overall active/passive supervision score is close to the expected 30%. Too much time is devoted to travelling (linked to plant layout/geography) and ad-hoc discussions.



Mining Production

Active supervision allocation is below the ideal target, but in terms of overall active/passive supervision Mining Production seems to be performing well (total of 32% vs ideal time of 30%). Major time-consumers are travelling and waiting time.



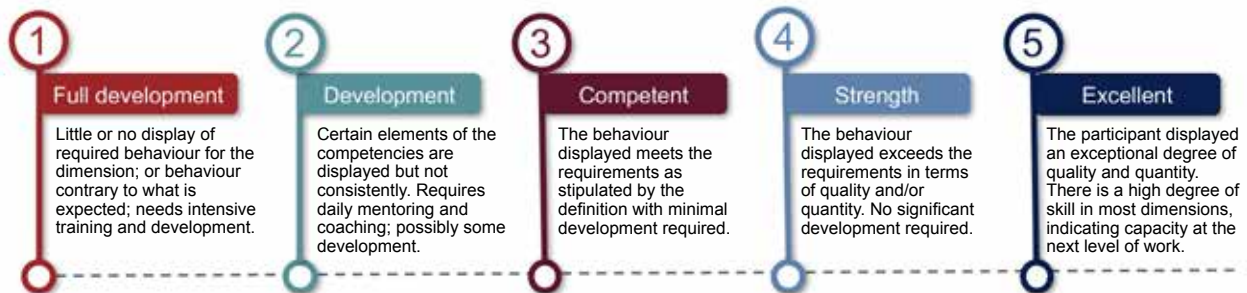
2.3 Role assessments



At what level are supervisors performing their daily tasks?

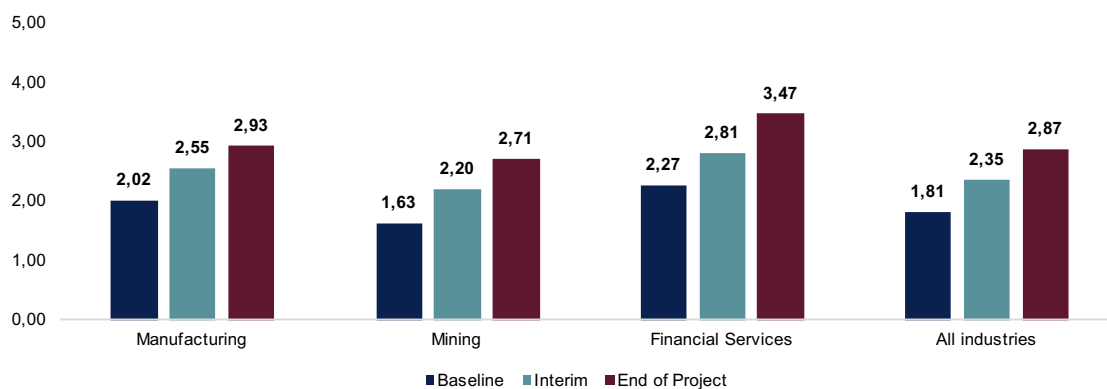
How to read the results

- Role assessments deal with the operationalisation of the competencies that were assessed, translated into a supervisor's required daily tasks
- Specific activities and outputs were identified in four areas:
 - Start of shift
 - Team meetings
 - Shift execution, and
 - End-of-shift procedures
- Experienced engineers (industrial, mechanical and chemical) scored supervisors on a 5-point scale through on-the-floor observations
- A score of 3 indicates that the supervisor meets the minimum requirements as stipulated by the definition

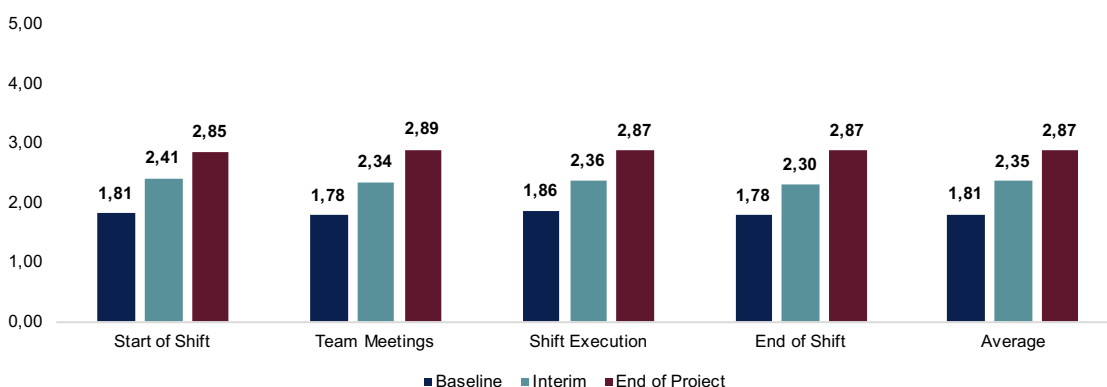


- A system was developed to calibrate scores for consistency and validation
- The graphs depict three assessment scores:
 - Baseline (prior to any intervention)
 - Interim (halfway through the coaching schedule)
 - End-of-project (final score at end of coaching cycle)

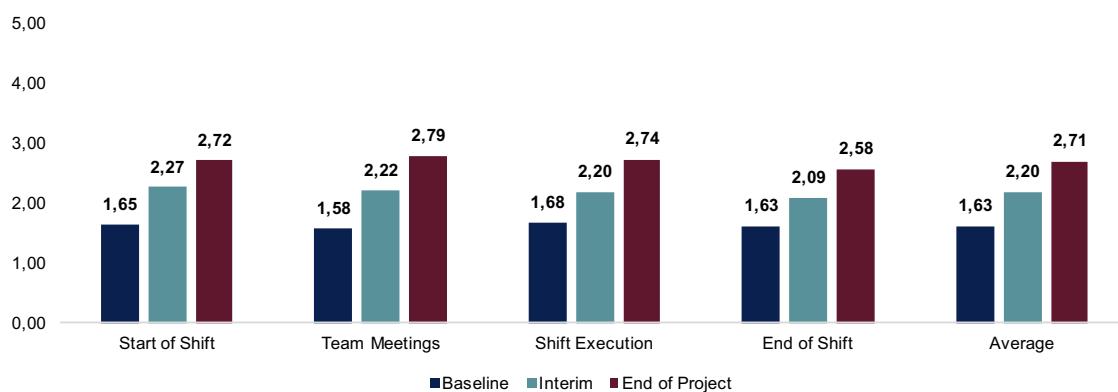
Total average score – per industry – all day elements



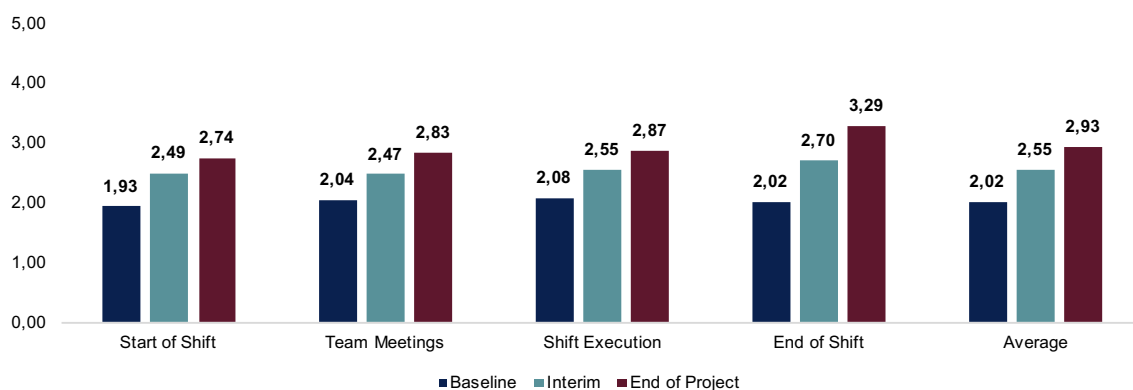
Total average score – per day element – for all industries



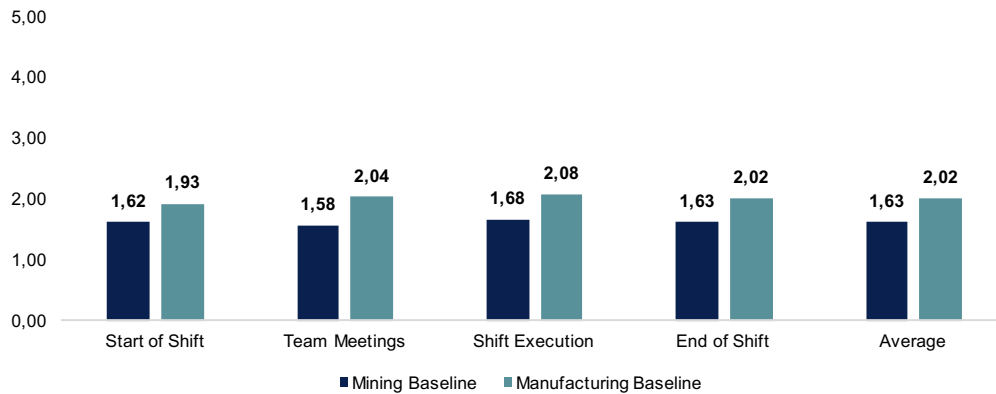
Average score – per day element – for mining



Average score – per day element – for manufacturing



Average score – mining versus manufacturing

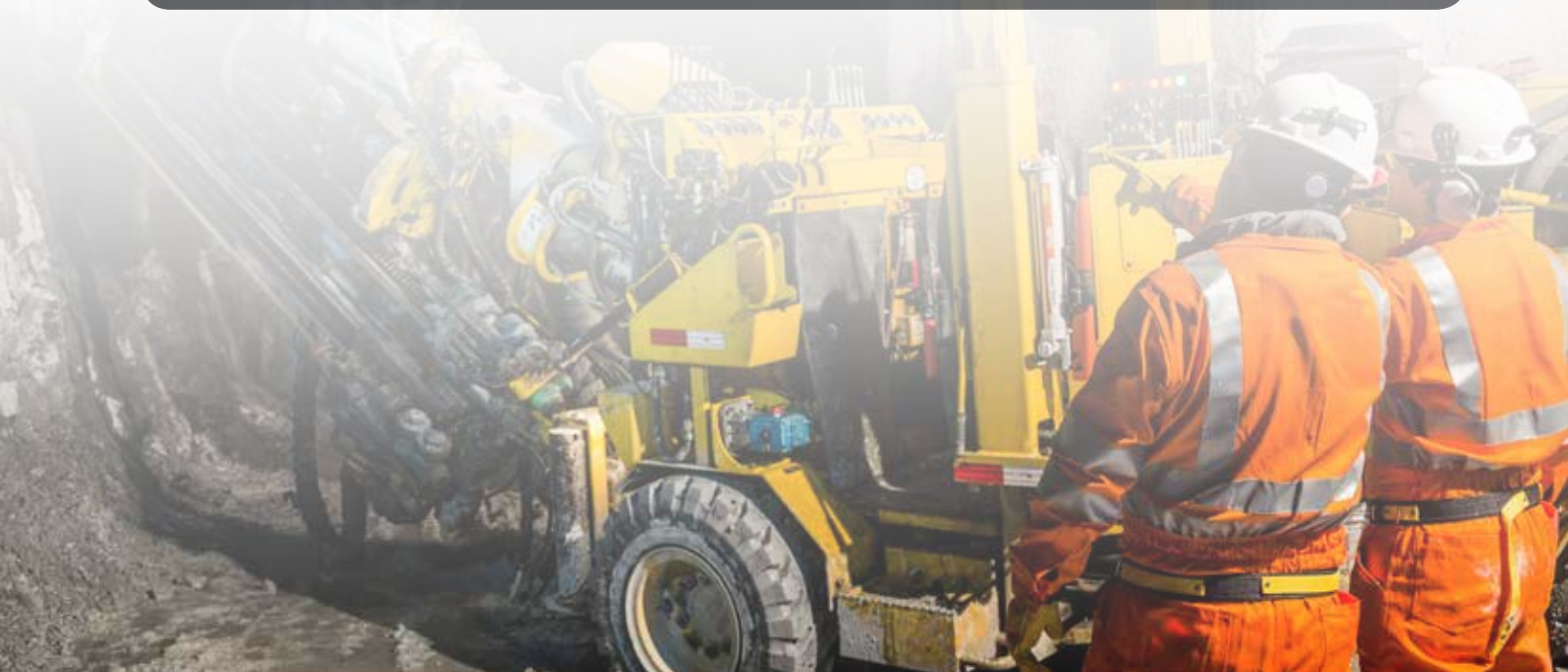


The baseline assessments paint a pretty bleak picture of supervisors' operational capabilities. Although supervisors showed a marked improvement over the intervention period, longer-term operational coaching is required for sustained supervisory development and functioning at the required level (a minimum of 3).

Please see section 3 for more information on the importance of establishing a coaching culture.

Definitions

- **Start of Shift** – Preparations/Procedures for start of shift; meetings to discuss safety-related issues, schedule compliance and shift plan for next shift (including non-schedule related work)
- **Team Meetings** – Oncoming shift supervisor prepares for team caucus meeting; meeting with team to motivate his/her team and focus them on executing the shift in a safe and efficient manner
- **Shift Execution** – Transport operators to various sections, conduct relevant inspections (eg safety), start shift and perform continuous evaluations of the area while performing coaching and administrative tasks
- **End-of-shift Procedures** – Supervisor ensures that work area(s) is ready for the next shift and is prepared for the shift handover meeting

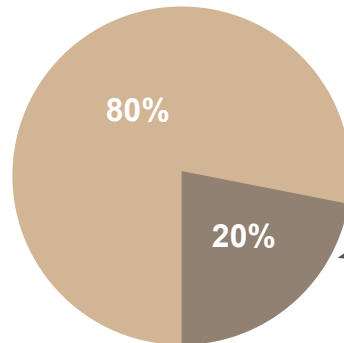


3 | THE OIM SOLUTION



80/20-INTERVENTION

On-the-floor coaching and
operational optimisation:
80%



Classroom training: 20%

WHAT do we do?

OIM has developed a multifaceted approach to improve supervisory competencies and capabilities through the integration of training and on-the-floor coaching. This intervention bridges the learning transfer gap and has been proven to result in operational efficiency and improvement.

The rationale behind it is simple: If both the competencies and operational management skills of supervisors are developed in a cohesive manner, it will drive improved team effectiveness and therefore result in better organisational performance. This is typically seen through improved utilisation, availability, efficiency and quality of their team's work.



HOW do we do this?

DEFINE

.....
what supervisors
need to do

Define a framework
outlining the required
competencies and
operational capabilities

ASSESS

.....
supervisors
against these
frameworks

Determine the
development needs
.....
Establish a baseline
.....
Track progress

DEVELOP

.....
competencies
and capabilities

Classroom training
and assignments
(20%)
.....
Complemented by
on-the-floor coaching
and operational
optimisation (80%)

MANAGE

.....
supervisors as a
critical talent pool

Ensure sustainability
through building
internal capacity
.....
Coach line managers
to become operational
improvement coaches
.....
Capacitate new
supervisors
.....
Conduct regular
audits in key areas
and make adjustments
where required

• **Typical implementation period:** 5-6 months

• **Typical coaching cycle:** 16 weeks

Customised coaching plans are developed per supervisor, with an intense daily coaching schedule run by industrial, mechanical and/or chemical engineers

**“Tell me and I forget, teach me and I may
remember, involve me and I learn”**

Benjamin Franklin, one of America's founding fathers





The importance of establishing a coaching culture

The data in this paper speaks for itself: the integrated approach of supervisory competency development and on-the-floor coaching result in operational improvement and better organisational performance.

Although positive results have been recorded at numerous clients, we will be amiss if we don't highlight the importance of the **MANAGE** part of the intervention – **building a coaching culture in client organisations.**

The reality is that most supervisors operate below the required competency level in all of their performance areas – and even after weeks of intense coaching and training they still don't function at the required level 3 (*see role assessment results in section 2 and the case studies in section 4*). Just as training course after training course is not the answer to the supervisory skills challenge, the one intervention after the other – however effective – is also not a sustainable option.

So what seems to be a key to this challenge?

Over the past six years we have seen that where companies have embraced the establishment of a coaching culture, they have continued to report an increase in supervisory performance and overall organisational results. Unfortunately, the companies that did not focus on this aspect, recorded the same and/or declining results in the performance of their supervisors.

The establishment of such a culture includes the development of line manager coaches who can “take up” the role of OIM's consultants to some extent, capacitating new supervisors, as well as conducting audits on a regular basis and implementing action plans where required.



4 | IMPROVEMENT RESULTS



OIM measures results in various ways to show operational results. This includes a benefits realisation model, interim and post-project assessments, and analysis of KPIs against the various data points.

For purposes of this document, we will focus on the benefits realisation and post-assessment results at three clients as examples of the attained performance improvement.

Client A: Small open-cast iron ore mine

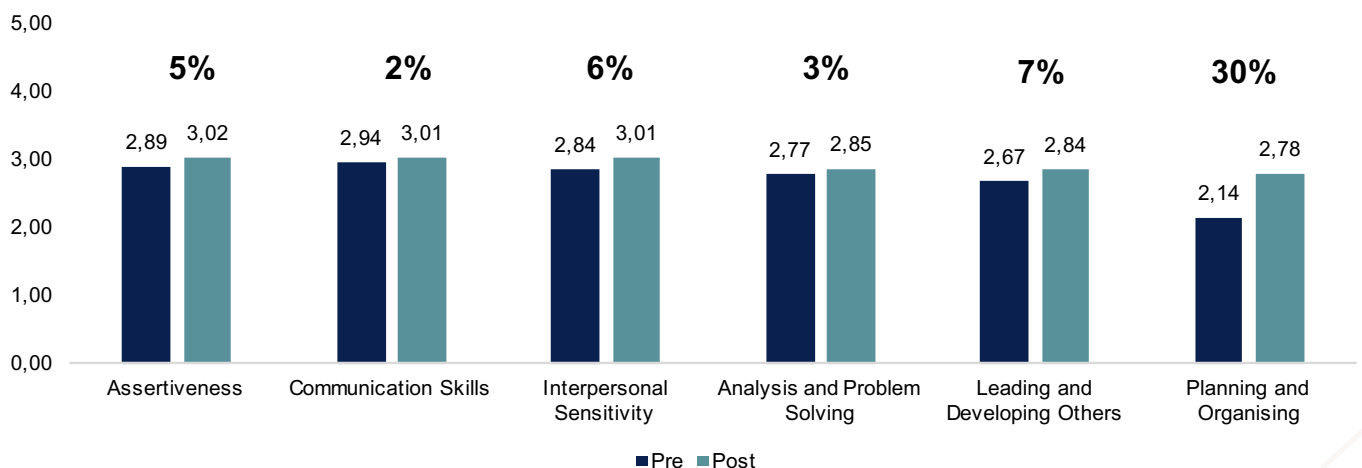
The client is a small open-cast iron ore mine, made up of two mines and a 16 million ton per annum beneficiation plant.

Turnover: Revenue increased by almost R500 million (over 7 months)

Productivity: Output tons improved by 13% (Load and Haul) and 15% (Drill and Blast)

Competencies

- On average, the supervisory competencies improved by 10%
- Individual improvements of up to 78% were recorded
- The planning and organising capability improved by 30%



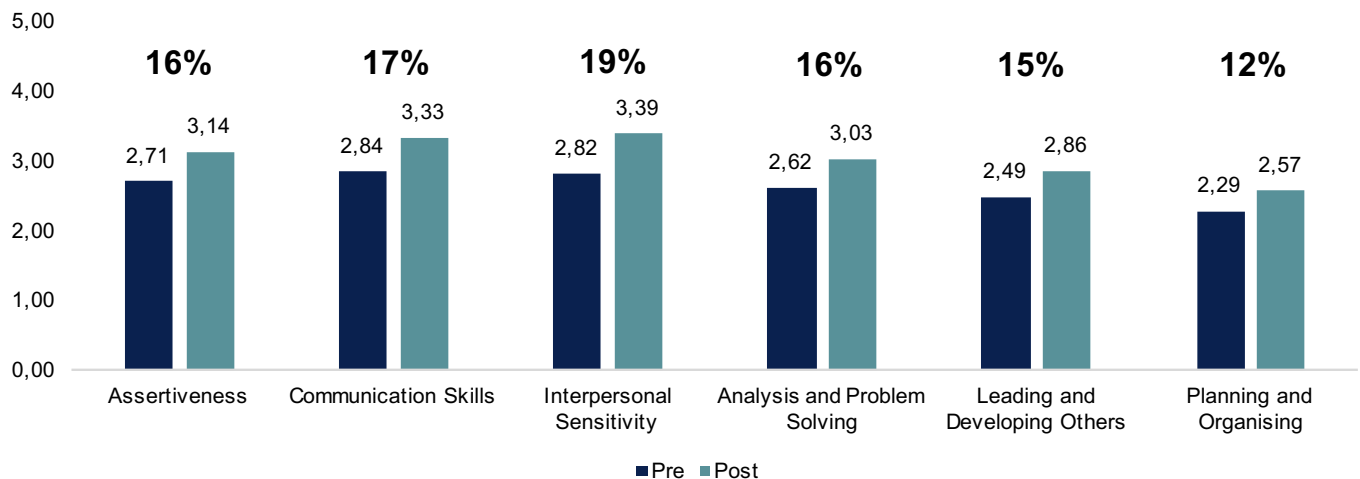
Client B: Large open-pit iron ore mine

The client is one of the largest open-pit iron ore mines in the world, and the largest one in Africa. It has mining operations throughout South Africa and employees more than 14 000 staff members.

Turnover: Revenue increased by almost R540 million by end of project

Productivity: Ton outputs improved by 25% per annum

Competencies: Improvement was recorded in all measured areas



Client C: Major player in the food manufacturing industry

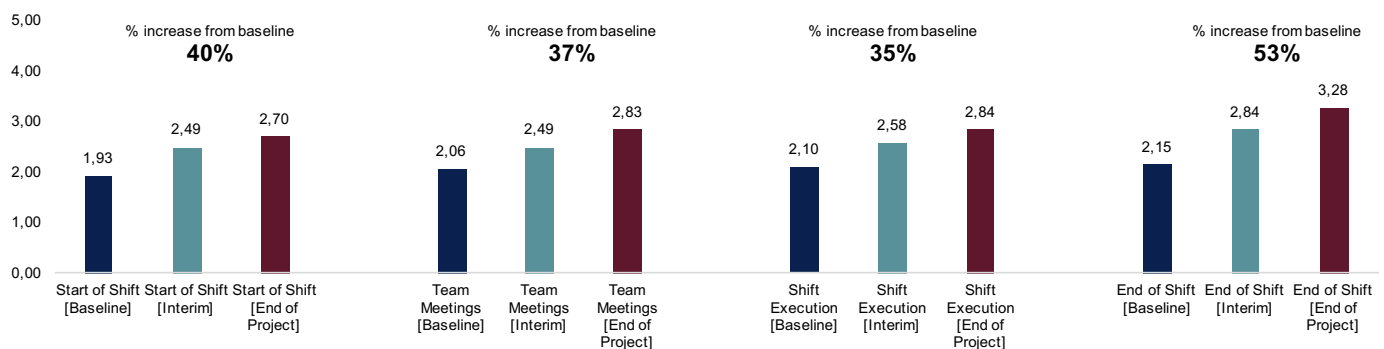
As one of South Africa's largest producers of fresh and individually quick frozen (IQF) chicken, the client has several operational divisions in Southern Africa and employs more than 12 000 people.

Turnover: Revenue increased by R270 million per annum

Productivity: Throughput improved by 11,5%

Competencies:

- The graph shows a significant improvement in the operational capabilities of supervisors by the end of the project – ranging between a 38 and 53% improvement in the execution of their daily tasks
- For various internal reasons, the client chose a different competency assessment method – therefore their competency results are not available





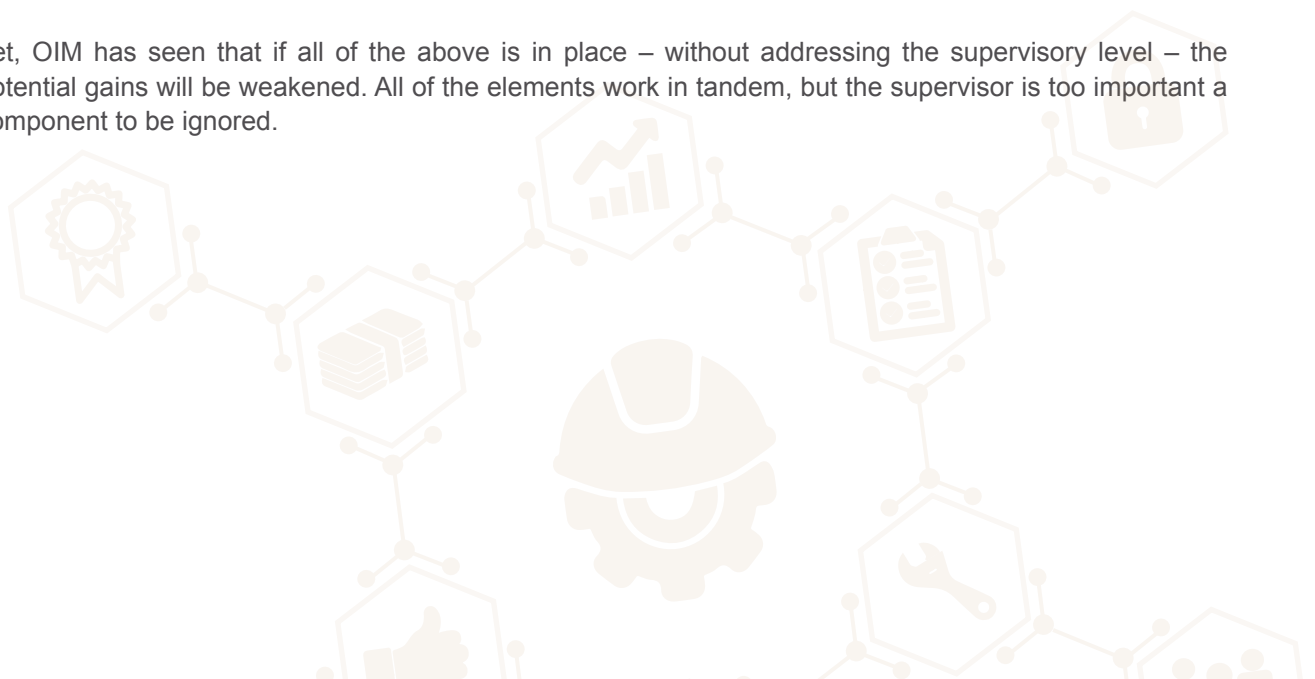
5 IN CONCLUSION

Hopefully our whitepaper has provided a better understanding of the supervisory space within South Africa. It has many challenges, but as was shown, also many opportunities.

We believe our supervisory intervention has proven operational results, but it's not a "silver bullet".

Companies still need to have a solid strategy, effective processes, lean structures and an engaged workforce. Leadership is of course crucial; poor top leadership will erode any gains at the bottom.

Yet, OIM has seen that if all of the above is in place – without addressing the supervisory level – the potential gains will be weakened. All of the elements work in tandem, but the supervisor is too important a component to be ignored.





Enabling GROWTH

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