Research Brief

WisDOT Skills Readiness and Knowledge Management

Research Objectives

- Understand and analyze the nature of gaps in skills needed for job performance

- Assess current status of knowledge management and practices at WisDOT to offer recommendations

Research Benefits

- Provide a strong foundation for WisDOT to build upon and position the agency for future success

- Identify areas of needed improvement to strengthen WisDOT's knowledge and skills base

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Background

Talent shortages continue to be a major challenge for organizations and are viewed as a significant threat to an organization's short-term and long-term operations and success. Changes in technology, workforce demographics and market disruptions lend to this issue. Over time, as jobs adapt to these changes, new skill requirements emerge which are often accompanied by a reevaluation of education, experiences and qualifications necessary for job performance.

The purpose of this project was to understand and analyze the nature of gaps in skills needed for job performance and the current status of Knowledge Management (KM) practices across WisDOT and offer recommendations on how best to address some of the gaps using insights derived from a review of best practices and data analysis.

Methodology

The project utilized literature and research from sources including the National Cooperative Highway Research Program (NCHRP), Transportation Research Board (TRB), US DOT, Federal Highway Administration (FHWA), and the Society for Human Resource Management (SHRM) to identify trends and best practices in skills assessments and knowledge management (KM) practices.

Based on these, the project team created and conducted an agency-wide survey that assessed the importance of key stills to job performance across three time periods (past, present and future) and main components of KM practices. A two-week response time yielded a total of 1,153 surveys, about 30% of current staff.
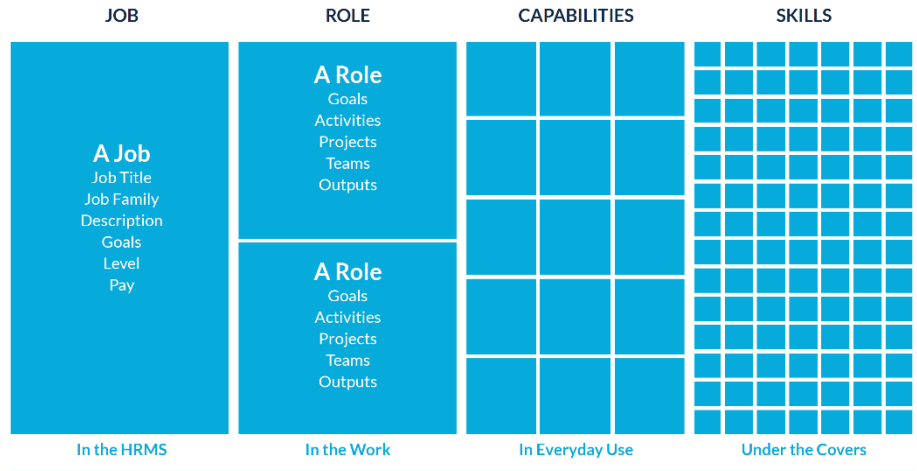

Leading practices in strategic workforce management by transportation agencies (NCHRP)

Results

Data analysis identified that across all divisions of WisDOT, employees have a set of core durable, and transferable skills that have contributed to their successful job performance.

The relationship between jobs, roles, capabilities and skills
Source: Bersin (2022) Rise of the Talent Intelligence Platform: A Primer.

These skills include communication, analytical, problem-solving, critical thinking and collaboration with colleagues and stakeholders. Analysis of the data on KM practices across all divisions also reveals a strong foundation for information and knowledge capture systems.

Recommendations for Implementation

The research team offered four recommendations:

1. Establish a team of cross-functional professionals to engage in annual workforce planning activities that are coordinated with the strategic planning process and engage multiple levels of leadership. The team will be responsible for carrying out some of the essential activities associated with this function, including skills assessment and knowledge management.
2. Create a comprehensive succession planning and knowledge management strategy that is aligned with the strategic workforce planning and development plans.
3. Re-envision talent management practices that are aligned with the strategic workforce management plan and are skills-based and data-driven. Prioritize mission-critical roles and positions.
4. Invest in skills-based technology that addresses skill and knowledge gaps.