70 20 INSTITUTE
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Case study

Performance Improvement in Healthcare Systems

Implementing a 70:20:10 Solution in Hospital Surgery

Client Situation

The hospital client in the Netherlands, with over 5,000 employees at the time of this intervention, has core activities in the areas of patient care, education and training, and research. These task fields are closely intertwined with each other and high-quality patient care is central to everything the hospital does.

As the healthcare industry undergoes significant market changes, the largest part of the expenditure for patient care is dependent on the volume and the price of the service performance delivered, expressed in Diagnostic Related Groups (DRG's). Due to increasing competition, as well as the increasing number of international healthcare partnerships and higher requirements on patient safety, institutions now take on more risk than in the past.

These industry changes bring many new challenges including the need for continuous improvement of patient care and, at the same time, increasing cost control measures. A full and accurate registration of patient data, especially related to DRGs, is therefore of great importance. The implementation of a new SAP system at the hospital was undertaken with the goal of further optimizing many administrative tasks. In the surgical unit, the objective was to streamline and automate all aspects of patient administration. The **Patient Administration Module** (PAM) was a sub-project of the system-wide implementation of SAP.

The Challenge

The hospital's challenge with the SAP implementation of the PAM in the surgical unit was to minimize the costs and time away from work associated with the staff learning how to use the new system correctly. The program had to result in an internal software certification process for all trained users. Over 2,800 care professionals would need to use the PAM across the hospital, including over 750 patient care professionals in the Surgery Business Unit itself.

The hospital's change management board determined that conducting formal training to teach the required PAM system user skills would present an insurmountable level of downtime for the Surgery staff, as one estimate indicated a three-day formal training program would be needed to teach the required skills (representing over 18,000 hours of lost time for the Surgical staff alone, and over 67,000 hours for the full target group of PAM users.) The formal learning option was simply not viable to keep the hospital operating effectively. A more flexible, creative, cost-effective and time-saving learning solution was needed.

Consultants from the 70:20:10 Institute were brought in to co-create with the hospital's education and surgical team an innovative 70:20:10 design for the project. The goal was to design a learning and performance landscape making it possible to allow a significant part of the preparation and support of professionals to occur in a cost-effective way in practice (i.e., workplace learning). The hospital's criteria for the successful solution included:

Criteria	Specifically designated by the organization for this situation
Costs	• Minimal non-productive hours due to course activities in classroom.
Time	• The knowledge must lead to certified professionals being able to work internally with the new software system. • The knowledge transfer must take place just in time, just in place, just enough, just for the employee and for the team.
Acceptance and commitment	• Utilization of the possibilities to learn at the workplace.
Returns	• The support program must lead to an internal certification. Only employees with a certificate will receive authorization to use the system.

The Solution

Working with the change management board, the education team, and many multi-disciplinary teams created at the hospital, the Institute consultants implemented a solution using all five new roles of the L&D professional (as defined in 70 20 10 Towards 100% Performance, 2015).

Performance Detective: conducts business, performance and root cause analysis
The over-arching business need formulated by the hospital to guide the project was defined as:
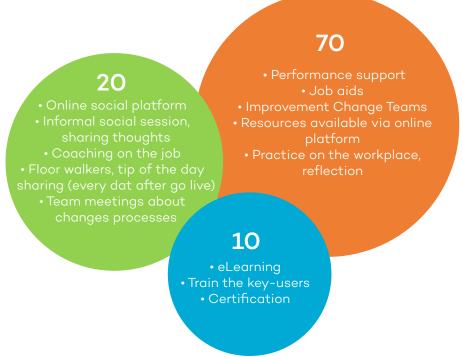
> *Is it possible to train the care professionals involved in working with PAM, before the go-live date, with the least possible time, lost costs (time away from work) and demonstrable quality in the form of a certificate?*

The goal was to have the entire target group certified within two weeks after the PAM go-live date (i.e., competent in using the new system in each person's own context) with the following behaviors demonstrated (performance goals):
- o Independently solving non-system technical problems (competency questions).
- o Systematic approach to PAM implementation in the department
- o Awareness of the importance of source registration (of DRGs).

Performance Architect: designs the "100", a mixture of "70", "20" and "10" solutions
The design of the learning and performance landscape was characterized by:

- *Just in time*
  - Change teams per department were trained and instructed the colleagues at the workplace as of a maximum of six weeks before the software system was implemented.
  - For two weeks after the implementation of the software system, change team members were available to instruct and support colleagues on the spot in operating the system.
- *Just enough*
  - Professionals only learned what they needed in order to do their work. This means purely functional instruction was given with the software system at the workplace.
  - Optimal use was made of the best working methods and the best performers (examples of operational excellence are distributed rapidly and in a contemporary fashion via the learning landscape).
- *Just in place*
  - Learning how to work with the system was a process of formal and informal learning moments (not restricted to theoretical instruction in a specific classroom) with continuous, intelligent support in learning and working in practice.
- *Just for you*
  - Custom-made work took place via expert teams per department, so that the context was relevant for every participant. The instruction and support and the information in the virtual environment were in accordance with the principle "just for you."
- *Just for us*
  - The support was organized per department by the management and the change teams, which meant that it gave rise to the experience that the learning and help were "just for us."

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• Performance support
• Job aids
• Improvement Change Teams
• Resources available via online platform
• Practice on the workplace, reflection

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• Online social platform
• Informal social session, sharing thoughts
• Coaching on the job
• Floor walkers, tip of the day sharing (every dat after go live)
• Team meetings about changes processes

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• eLearning
• Train the key-users
• Certification

Performance Master Builder: completed task analysis for all involved jobs, reviewed the process for each job, and produced the solutions (e.g. job aids, microlearning, performance support tools, etc.) Informal, formal and social learning experiences were built for each department (see above image). The solution emphasized practice-based training and custom performance support tools for each employee group. The change management team also deployed PAM ambassadors to each department to build commitment to and involvement in the learning experience.

Performance Game Changer: aligned with all stakeholders, organized communication about the project and worked with all the teams involved.
The hospital's game changer facilitated communication and alignment between senior and operational management groups, subject matter experts and SAP technical consultants, Finance and IT. The communications staff created a series of weekly newsletters and journals which provided regular updates on the project and implementation plans. This constant contact enabled the various stakeholder groups to remain connected and committed to the project.

Performance Tracker: described a measurement plan that met the business requirements of the project, collected and analyzed data, and presented results to senior leaders and other stakeholders.

At the beginning of the project, the measurement plan was established to include a detailed business case that compared the projected costs associated with a traditional 3-day formal training program for the target audience to the costs associated with the 70:20:10 solution. Additionally, the client determined that the Philips Five Levels of ROI analysis would be included in the data collection. The level five ROI analysis would use the projected business case estimates and compare those to actual costs of the implementation process.

The initial business case indicated that the 70:20:10 solution would potentially save over € 1,000,000, which represented a projected 43% lower total investment than required with a 3-day traditional training session for almost 3,000 employees.

Business Results

The actual results exceeded the initial estimates. The cost of the 70:20:10 learning and performance landscape solution ended up being € 1,400,000 less than the projected costs (which were also lowered from the original numbers), representing a savings of 63% compared to a traditional 3-day formal training program for the target audience. 91% of the Surgical staff that needed certification on the PAM application had received their certificate within two months of the "go-live" date.

The solution enabled care professional networks to cooperate, communicate, develop and share knowledge, and learn from and with each other, with:
• Informal learning supported with social software;
• Formal learning connected with informal learning (at the workplace);
• Performance Improvement (using the HPI method);
• *Continuous co-creation.*

Several important organizational results were achieved:
• Risk control surrounding the source registration increased as errors were detected and corrected immediately;
• Work on the continuous improvement of the quality of care was enhanced;
• Cost control measures were put in place to further optimize the source registration process for DRGs.

Client Value

In addition to the significant cost savings realized with the 70:20:10 design and implementation process, the hospital gained many other benefits including:
• The source registration now plays a vital role for the organization within the framework of the external accountability required for healthcare reimbursement and compliance.
• Saving on learning costs by using informal learning in combination with social learning was a significant breakthrough in how L&D is delivered at the hospital. The senior manager of Surgery determined that the same learning approach would be used for future performance improvement projects, such as customer-orientation and risk management.