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Competency Management System and LMS Evaluation Checklist

2021

Healthcare LMS / CMS Evaluation Checklist

All healthcare providers need to develop and sustain the critical skills of their staff and the administrators of the associated Competency Management Systems (CMS) and Learning Management Systems (LMS) need to navigate a complex world of regulation and compliance requirements.

This document provides learning decision makers with a structured set of selection criteria for the evaluation of CMS / LMS platforms.

Learning Management Systems vs Competency Management Systems

Learning Management Systems are primarily designed to assign and deliver elearning content. Competency Management Systems record and report on a user's status against predefined competencies which are organized via criteria such as job role, location, or future career needs. Competency Management Systems also offer on-the-job skills verification tools such as skills checklists.

Often LMS and CMS systems are combined into one platform, but it is important to consider a solution through the two lenses. Learning Management and Competency Management. This document addresses both Learning and Competency Management needs for a healthcare organization, but for the sake of brevity the technology will be referred to as an LMS.

Clinical vs non-clinical training

This document focuses predominantly on clinical training and development where the need for precision is at its highest and any weaknesses in a Learning Management System can become apparent.

In contrast, managing the learning in a non-clinical environment has many parallels with general corporate training except for the need to consider healthcare-specific requirements in areas such as security and data protection and the need for audit trails to support compliance and risk management.

How to use this checklist

You'll likely have a team of healthcare professionals, technologists, integrators and hospital management participating in your evaluation process. Each person will be looking at the system from their unique perspective and experience and so we have structured this checklist to support that need for different perspectives.

Each section explains why that aspect of assessing an LMS solution matters and gives a table of suggested requirements for a rigorous LMS evaluation exercise.

For convenience, all the requirements are pulled together into a single Evaluation Sheet at the very end of the document.

Organization Management

This section deals with the Organization Management needs of a Learning Management System. This covers aspects such as user data, setting up the platform to ensure the right people get the right learning, reporting visibility for managers and integration with other business systems.

JOB ROLES

Within a clinical healthcare setting, competency and skill requirements need to be attached to job roles to ensure personnel are qualified to hold the role. Job roles can also be a mechanism for assigning learning content and other operational activities like audits.

REQUIREMENTS
System enables a system administrator to create custom job roles
Multiple job roles can be assigned to a user
Mandatory competency and skill requirements can be added to a job role
Optional competency and skill requirements can be added to a job role
Training and learning can be mapped directly to a job role
Users can be assigned and removed from job roles via an API
Job roles can be created / updated / deleted via an API

LOCATIONS

Does the platform support locations? Locations represent physical locations that can be used to add context to a training activity. This information can also be useful for compliance audits.

For example, did the user participate in the Mock Code Blue in the simulation lab or in a ward? Or do we have enough location coverage for hand hygiene audits.

REQUIREMENTS
System enables a system administrator to create locations such as buildings, floors, wards and rooms
Users can be attached to a location
Location data is readable and writable via API
The location of an on-the-job training activity can be recorded
The location of an on-the-job assessment can be recorded
Report on on-the-job training and assessment by location

CUSTOM FIELDS

Custom Fields enable an administrator to attach custom information to an object within the system. For example, employee numbers might be attached to employee records and cost-center information to groups.

REQUIREMENTS
An administrator can create custom fields for users
An administrator can create custom fields for groups
An administrator can create custom fields for locations
Custom fields can be updated via an API

PERMISSIONS

Permissions define the extent to which a user of the system can interact with the data stored. Permissions are typically managed by association with a role; for example, an administrator would have a wider set of permissions than a learner and would be able to create, edit, update and delete data that a learner can only view.

REQUIREMENTS
Users can be allocated to groups, such as administrator, contributor and viewer
The permissions of each group can be set and changed by the system administrator
A minimum of 4 discrete levels of permission are available (e.g. admin, contributor, viewer, reporter)
Permission management is available via an API

Training and Learning

This section deals with how learning content is authored, loaded and curated as well as the technical standard used to load and track content. It also covers the management of group training events.

This section will be of interest to instructional designers, LMS administrators, training managers and those coordinating professional development.

AUTHORING TOOLS

Authoring tools are 3rd party products that are used by instructional designers to produce learning content. Well-known examples are Articulate Storyline, Adobe Captivate and Gomo Learning.

Content is created in the authoring tool and then loaded into the learning platform where it can be made available to learners. The authoring tools have adopted interoperability standards so that they will work with your learning platform.

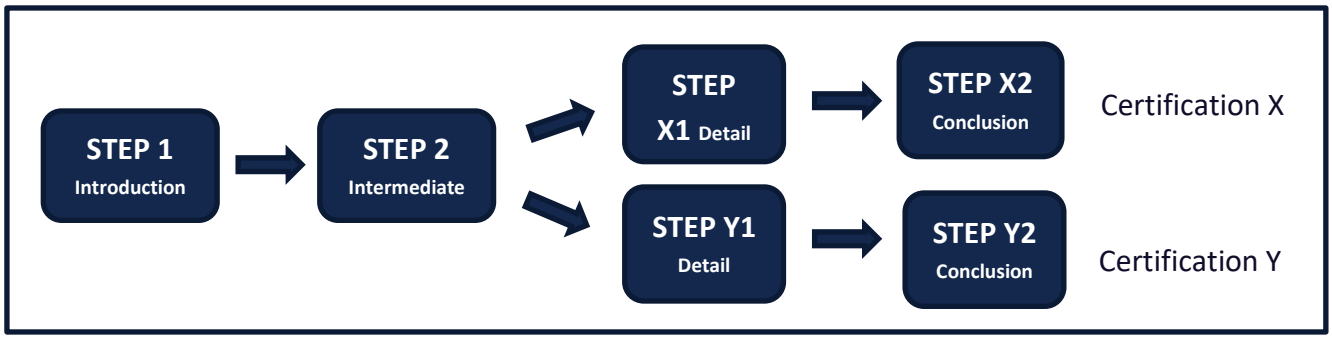
The two most common interoperability standards are the legacy specification SCORM and its updated equivalent xAPI.

REQUIREMENTS
Supports SCORM 1.2 (October 2001 std)
Supports SCORM 2004 (2nd Edition std)
Supports xAPI / CMI5 (current standard)

TRAINING PATHS

Training Paths are used to sequence learning steps. The learner navigates a series of steps to complete a specific training path that leads, for example, to a certification. Steps can be used within multiple training paths.

A typical training path might look like this:



REQUIREMENTS
Can create multistep paths
Path steps can contain eLearning content
Path steps can contain video content
Path steps can contain documents or procedures
Path steps can contain practical tasks
Path steps can contain Skills Observations by preceptor or equivalent
Path steps can branch to accommodate learners of different skill levels or abilities
Completion of a path can trigger the award of a skill or competency
Completion of a path can trigger the assignment of another path

GROUP TRAINING / INTRUCTOR LED TRAINING (ILT)

ILT or group training refers to face-to-face or online training where two or more people are trained at the same time.

ILT usually requires the tracking of attendance but within a healthcare environment it's often more appropriate to an activity with more granularity. For example, record the topics covered within the sessions, the duration of the session and capture information on those that leave early and fail to receive key training.

This data can be important for compliance and may also be used for Continuing Nursing Education (CNE) credit.

REQUIREMENTS
Administrator can create a digital training agenda of items to be covered in training
Administrator can create training sessions
Trainer can record the start and end time of training sessions
Trainer can search for learners by name
Trainer can add learners to a session
Trainer can mark a learner as "attended", "absent" or "left before end of session"
The ILT application records which learners were in attendance when each agenda item was covered
An ILT session can be part of a learning path

CONTENT CURATION

In addition to formal learning paths, some hospitals may wish to offer additional development opportunities through content curation, in which a Subject Matter Expert (SME) curates specific content and shares it with an audience via the learning platform. Hence a curated content session could be a step within a path or could be a stand-along “extra”, providing specific learning outside any learning path.

Curated content usually consists of articles, videos, presentations, PDFs and so on. It might be stored on the internet, on the hospital’s private network or on a streaming video platform. The learner would then retrieve the content at the time of learning.

As an example, a security expert might curate content about a specific security risk and make the content available on the hospital network to specific personnel. This would probably lie outside the hospital’s main training plans but delivering it via the Learning Platform would allow an administrator to track attendance.

REQUIREMENTS
An SME can create groups of curated resources
Curated resources can be shared with specific job roles, groups etc.
Curated resources can be stored on the internet and be embedded within the learning platform
Resources can be stored on the internal network and be embedded within the learning platform
Resources can reside on 3rd party platforms and be embedded within the learning platform
Learners can rate curated content
An SME can view learner ratings for each item of curated content

CONTENT AS A SERVICE

Learning content from 3rd party service providers can be a used with a learning platform. We describe this type of content "Content as a Service' because all its content is delivered to the learning platform via some form of integration.

REQUIREMENTS
API for 3rd part content services
Content can be added to paths
Content can be added to curated groups

ASSIGNING LEARNING TO USERS

How and when is learning assigned to users?

Learning in a hospital is often assigned to an employee based up their job role. For example, an ER nurse might be assigned learning content based on the needs of that particular unit. However, that same nurse may need to be assigned additional learning content in his/her role as a Hand Hygiene Auditor. Therefore, he or she needs to be assigned learning content for that task. The same nurse may also need to float across other departments due to care needs.

A healthcare learning platform needs to be flexible and scalable enough to support this without causing administration bottlenecks.

REQUIREMENTS
Learning content can be assigned to users based on group membership
A learner can belong to multiple groups
A learner can be assigned learning content due to an expiring skill
A learner can be assigned content based upon results of an observation checklist
A learner can be assigned content by a coach as a result of a coaching activity
A learner can be assigned content based on performance in other content
A learner can be assigned content based on completion of a prerequisite course
A supervisor can assign learning content to a learner
A preceptor / NDP can assign learning content to a learner

SELF-SERVICE CONTENT

An organization may wish to provide to the opportunity for learners to take on optional learning. This could be learning specific to a workplace challenge a learner is facing, for example a course on communication strategies, or skills to further develop their career.

REQUIREMENTS
Administrators can create content libraries and link them to a group or job role
Administrators can create content libraries and link them to a specific user
Libraries can be categorized for easy navigation by learners
Learners can locate and start content from libraries
Learners can rate learning content

PERFORMANCE SUPPORT CONTENT

Performance support, sometimes known as just-in-time learning, is content that a learner may need to access to carry out their job. Examples of this type of content include equipment "How To" documents, Standard Operating Processes and micro-learning on procedures that are infrequently carried out.

Content may sit within the learning platform or be linked to a file on another system such as a Document Management System (DMS) or a Microsoft Exchange Server. This is important because it removes the need to duplicate content and it uses the same content, and therefore consistent content, across multiple systems.

Content administrators will find it helpful to collect usage and collection data for improvements to content.

REQUIREMENTS
Can create libraries of performance support content
Can share performance support libraries to groups
Can share performance support libraries to individual users
Can share performance support libraries based on location or job role
Can embed content within the learning environment from other services, such as a DMS, a video streaming service or an Exchange Server

User types and roles

This section addresses requirements to support a range of key user roles.

A hospital's Learning Management System needs to accommodate the unique requirements of both educators and learners. Therefore, the needs of educators should be a key consideration in the evaluation process.

CLINICAL EDUCATORS

Educators in a hospital setting are unique amongst educators in that they need to be deeply involved in developing the performance of the learners. They therefore use a combination of learning content, conversations, demonstrations and one-on-one coaching when working with clinicians.

To support this, the Learning Management System needs to have features that support the development and verification of these core competencies.

REQUIREMENTS
Reduces administrative workload for clinical educators
Automates administration tasks for clinical educators
Provides clinical educators with rapid access to employee skills and competencies
Provides clinical educators with access to employee training outcomes
Provides clinical educators with access to employee training transcripts
Supports coordination of training tasks between clinical educators

ATTENDING PHYSICIANS + PRECEPTORS

Working with residents across rotations can make tracking the development of competencies difficult. Attending physicians need to be able to focus their attention on assessments in the current rotation, but also need to be able to refer to historical resident records and assessments carried out by other attending physicians.

Preceptors also have unique requirements from a Learning Management System because they spend time working with individual learners and their work is often not tied to training requirement. To support the development of those individuals, preceptors need to have access to their learning records and they also need to be able to "drill down" into the detail easily to identify key learning points *for that individual at that time*.

REQUIREMENTS
Allows attending physician to select and view all those on the current rotation
Supports the pairing of a named preceptor to a named graduate nurse
Supports the attending physician's and preceptor's need to assess learning needs and set goals for the learner
Supports the creation and assignment of training plans by the preceptor for the learner
Enables the evaluation of clinical competence by the attending physician and preceptor
Enables the documenting of BOTH learning and clinical progress
Enables the attending physician and preceptor to record the results of a coaching session, including agreed actions and feedback from the learner

NURSING PROFESSIONAL DEVELOPMENT PRACTITIONERS

NPDs typically work across wards and locations, ensuring that nursing staff have the educational support they need to meet assessment requirements.

To plan their days, NPDs need to be able view nursing staff across the organization and view training needs on a location and task basis. They also need to be able to share and coordinate training and assessment tasks.

REQUIREMENTS
NPDs can view a real-time skills matrix by location
NPDs can view training and on-the-job assessment tasks by location
NPDs can view and complete task they are responsible for
NPDs can view and complete team tasks
Historical training records or each nurse are available to each NPD
NPD can view expired and expiring competencies for each location
NPD can view expired and expiring competencies for each individual

Competencies + Skills

This section considers requirements in the area of competencies and skills which lie at the heart of clinical training.

Competent caregivers lead to better and more consistent patient care which is turn leads to better patient outcomes. Accomplishing a high level of control and management of competencies and skills can be labor-intensive unless an automated system is implemented to support both medical educators and learners.

MANAGING COMPETENCIES AND SKILLS

In assessing a Learning Management System, several factors relating to how competencies and skills are managed need to be considered. They need to be properly linked to job roles, supported by appropriate workflow and supportive of key decision making such as career advancement and future planning.

REQUIREMENTS
Administrator can create competencies and associated competency levels
Administrator can create skills and associated skill levels
A verification method can be defined for each skill
A skill can be verified by course completion
A skill can be verified by course attendee's self-rating
A skill can be verified by course peer rating
A skill can be verified by a preceptor/NPD rating
A skill can be set to expire after a period of time
A skill can be set to decay over a period of time
Learners and their supervisors can be notified by email that a skill IS ABOUT TO expire
Learners and their supervisors can be notified by email that a skill is HAS expired
Administrator can attach competencies and skills to job roles
Learners can view competencies and skills for job roles and assess their current competencies and skills against the requirements for the role
Learners and administrators can view gaps between current competencies and skills and selected job roles

REPORTING ON COMPETENCIES AND SKILLS

The reporting associated with competencies and skills management must be visible and must provide actionable recommendations in order that it contributes to driving benefits for the organization. Supervisors, educators and preceptors need to be able to quickly drill down into the competency and skills data so that they can understand how their teams align to current and future organizational benchmarks.

This needs to work in a frictionless way through organizational controls that support an adequately granular permissions solution. Specifically:

- NPD staff need to be able to view the competencies and skills *of all nursing staff*
- Preceptors, charge nurses and team leaders need to view the competencies and skills *of their immediate teams*
- Attending physicians need to be able to view the competencies and skills *of residents that are on their current rotation*
- Chief Risk Officers need an organization-wide that reports by job role

REQUIREMENTS
Administrators can create skills matrix reports and share them with specified groups
Group permissions restrict the view of a group member to specific learners
Report users can filter reports by user, skills etc.
Report users can view and amend template reports created by an administrator
Skills matrix users can create their own reports (within their granted permissions)
All reports can be downloaded in .csv or Excel format

OBSERVATION CHECKLISTS

The Competencies and skills framework needs to be underpinned by tools that can be used to verify the capabilities of clinical staff.

Educators often use a set of observation checklists as the core method for assessing the competence of clinical staff. The checklists provide documented evidence that forms the basis for competencies and skills to be awarded as well as to produce compliance records for regulators.

The Learning Management System needs to support this by some form of integration of digital Observation Checklists and a streamlined assessment process. It needs to provide electronic, date-stamped evidence of the assessment and to automatically trigger interventions and workflows where they are needed.

REQUIREMENTS
Preceptors and NPDs can view a list of the observations that need to be completed by learners
Preceptors and NPDs can view a list of observations that are in progress and need completing by learners
Preceptors and NPDs can save an incomplete observation to be completed at a later date
Report users can view and modify template reports created by an administrator
Successfully completed observation checklists can automatically award a skill to a learner's record
Observation checklist can be accessed by desktop, tablet and mobile devices
Observation checklists can be accessed from workstation on wheels (WOW)
Use of observation checklist creates an audit trail
Administrators can create and amend observation checklists
Administrators can add observation checklists to a training path
Administrators can assign scores to items in an observation checklist
Administrators can assign success / unsuccessful scores to an observation checklist
An observation checklist can be attempted again if an initial attempt is unsuccessful
Administrators can determine whether an observation checklist can be reattempted and can limit the number of attempts allowed
Checklist data can be recorded and saved against a learner's record

SKILL VERIFICATION REQUESTS

A Learning Management System should allow a learner to request verification of a skill from any colleague with appropriate credentials. This enables learners to take control of the own development and to request verification for any required or optional skill.

REQUIREMENTS
Learner can view skills for which they need verification
Learner can view approved verifiers for each skill
Verifier is notified by system of skill verification task
Verifier can rate a learner against the skill criteria
Learner is notified of the verification outcome

COACHING

The Learning Management System needs to support the bringing together of preceptors, NPDs and learners to gain insights into frontline experience. This is best done with one-on-one coaching sessions and therefore the LMS needs to enable the coaching process to be managed.

It's important that each learner gets the right amount of face to face attention and support so that they individually and jointly develop into a team of well-engaged, long term staff.

Clinical coaching sessions are used to ensure that each employee is developing the skills needed to perform the job and has an opportunity to raise any questions or concerns as well as to provide valuable feedback for future development of learning paths, methods and tools.

In the context of these requirements, a coach may be anybody in a supervisory or reviewing role, such as a preceptor, an attending physician or an NPD.

REQUIREMENTS
Face-to-face coaching tasks can be assigned to supervisors through pathway tasks
Supervisors can record ad-hoc face-to-face coaching sessions
Supervisors can search for coaching checklists, preview and use them with a learner

Career Development

This section addresses requirements that support career development, which is so critical in today's working environment.

Many hospitals are striving to boost employee retention and engagement in a working environment with increasing competition and expectations. Providing employees with visible development plans that genuinely and demonstrably enable them to further their careers is therefore a high priority.

The career development features of a Learning Management System should enable a learner to view their current skills and training and to compare that with the skills and training required for roles to which they might aspire. They can then put plans in place to develop the new skills required and track and demonstrate their progress through proactive use of LMS features.

REQUIREMENTS
Administrator can define career training paths
Learners can view their own current skills and those needed for other roles
Career training paths can be shared with groups
Career training paths can be searched and selected by learners
Learners can self-register for a career training path
Supervisors and NPDs can review a learner's progression through a career training path
Supervisors and NPDs receive notifications when key steps are completed by a learner

Technical Environment

Hospitals are complex, and often long-standing, organizations. As such, they usually have a broad range of devices deployed on their networks. Key devices are often shared within a clinical area.

Some examples:

- Workstations on Wheels (WOWs / COWs)
- Voalte communication devices
- Department-issued iPads and tablets
- Staff-owned iPads, tablets and phones known as Bring Your Own Device (BYOD)
- Workstations

The Learning Management System needs to be accessible by verified employees across all, or as many as possible, of these networked devices

REQUIREMENTS
LMS supported on WOWs / COWs
Voalte communication devices
Department-issued iPads and tablets
BYOD devices for nursing staff
BYOD devices for physicians
BYOD devices for auxiliary staff
Workstations

Systems Integration

A complex healthcare environment will have complex requirements for the integration of the LMS with several other mission-critical systems.

These requirements need evaluating at an early stage because they can become major obstacles, or at least significant risks, to a successful implementation.

USER / DIRECTORY INTEGRATION

To ensure smooth operation with minimal routine manual intervention, it is important that the LMS can integrate to the organization's existing user management system. As a minimum, there's a need to implement automatic synchronization between the systems. This is typically done by integrating with a key HR or security system that stores and maintains key employee data.

Integration will need to include key data fields associated with each employee, such as group memberships, locations, job roles and cost codes.

In addition to this, any training associated with temporary staff of all types will required those staff to be registered on the LMS. This includes students, visiting healthcare professionals and the staff of some vendors, contractors and other 3rd parties.

So, the LMS may need to take its feed from different data sources for different types of users, since these temporary staff may not be registered at all on the central HR or security systems.

TRAINING RECORD INTEGRATION

Training records generated within the platform may need to be sent another system because the hospital may be required by regulations to maintain a "system of record" on a specific platform, within or beyond its own private network.

TRAINING DATA

Data from training interactions may need to be sent to 3rd party analytics platforms for the purpose of analyzing the efficacy of training and utilization of content. Again, this may be a regulatory requirement over which the hospital has no control.

ACCESS ENTRY SYSTEMS

Restricted areas may need to limit access based on training. The training system may therefore need to provide a notification – perhaps even in near real-time – to the relevant Access Control System to confirm that a user has completed a particular training activity. Revocation of user access may need to be supported as well.

CNE SYSTEMS

The LMS may need to send data to a CNE system so that users can receive CNE credit for training completed within the organization. The data sent may need to include "activity duration" and "CNE points" for activity completion.

SSO – SINGLE SIGN-ON

In a complex organization such as a hospital, a typical employee may need to access several different systems and applications when carrying out their job. To make the various systems as simple as possible for the user to navigate, while maintaining a secure network, many organizations implement a Single Sign On (SSO) approach. This simply means that the user signs onto their main device once (e.g. at the start of a shift) and that validation is integrated in such a way that they do not need to constantly sign in and out of different systems with different ids.

An LMS needs to support common SSO implementations in order to fit effectively into a pre-existing and complex network.

REQUIREMENTS
LMS can be integrated to multiple systems via well-known APIs to support the creation, deletion and amendment of user accounts
The LMS supports the upload of user account data via CSV including data such as group membership, job roles, location and cost codes
The LMS Administrator can create customer fields in the main LMS “database” to adapt the system to the requirements of the organization’s existing systems
The LMS can export user data via CSV to support the update of external (unconnected) systems; such data to include all “system of record” requirements
The LMS can be integrated into the existing SSO that is implemented by the organization

Security Considerations

In any complex organization, there will be security-related requirements that a Learning Management System will need to support. The general security framework that will need to be considered includes:

- HIPAA conformance is required, where ePHI data is to be collected by the LMS
- SOC 2 – Type 1 compliance may be required
- SOC 2 – Type 2 compliance may be required

Any organization considering the implementation of any new hardware or software into its network will have its own specific and detailed processes, policies and technical requirements that need to be satisfied in order for the incoming LMS to be acceptable to the organization.

Any organization is also likely to have standardized policies for **all** vendors to adhere to. It's imperative that these are considered early in the process to avoid any potential showstopper issues. The earlier such issues or concerns are highlighted the better they can be handled and resolved.

Examples of scenarios where the LMS may have higher than usual demand on it from a security standpoint are where a patient number is recorded for the purpose of academic assessment or where a medical record audit is involved. These is because these scenarios may cross into the storage of personal information for people who are not employees of the organization or its various 3rd party vendors and contractors.

REQUIREMENTS
HIPAA BAA
SOC 2 – Type 1
SOC 2 – Type 2

EVALUATION CHECKLIST

Organization Management

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
	JOB ROLES	
OM.01	System enables a system administrator to create custom job roles	
OM.02	Multiple job roles can be assigned to a user	
OM.03	Mandatory competency and skill requirements can be added to a job role	
OM.04	Optional competency and skill requirements can be added to a job role	
OM.05	Training and learning can be mapped directly to a job role	
OM.06	Users can be assigned and removed from job roles via an API	
OM.07	Job roles can be created / updated / deleted via an API	
	LOCATIONS	
OM.08	System enables a system administrator to create locations such as buildings, floors, wards and rooms	
OM.09	Users can be attached to a location	
OM.10	Location data is readable and writable via API	
OM.11	The location of an on-the-job training activity can be recorded	
OM.12	The location of an on-the-job assessment can be recorded	
OM.13	Report on on-the-job training and assessment by location	
	CUSTOM FIELDS	
OM.14	An administrator can create custom fields for users	
OM.15	An administrator can create custom fields for groups	
OM.16	An administrator can create custom fields for locations	
OM.17	Custom fields can be updated via an API	
	PERMISSIONS	
OM.17	Users can be allocated to groups, such as administrator, contributor and viewer	
OM.18	The permissions of each group can be set and changed by the system administrator	
OM.19	A minimum of 4 discrete levels of permission are available (e.g. admin, contributor, viewer, reporter)	
OM.20	Permission management is available via an API	

Training and Learning

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
	AUTHORING TOOLS	
TL.01	Supports SCORM 1.2 (October 2001 std)	
TL.02	Supports SCORM 2004 (2nd Edition std)	
TL.03	Supports xAPI / CMI5 (current standard)	
	TRAINING PATHS	
TL.04	Can create multistep paths	
TL.05	Path steps can contain eLearning content	
TL.06	Path steps can contain video content	
TL.07	Path steps can contain documents or procedures	
TL.08	Path steps can contain practical tasks	
TL.09	Path steps can contain Skills Observations by preceptor or equivalent	
TL.10	Path steps can branch to accommodate learners of different skill levels or abilities	
TL.11	Completion of a path can trigger the award of a skill or competency	
TL.12	Completion of a path can trigger the assignment of another path	
	GROUP TRAINING / ILT	
TL.13	Administrator can create a digital training agenda of items to be covered in training	
TL.14	Administrator can create training sessions	
TL.15	Trainer can record the start and end time of training sessions	
TL.16	Trainer can search for learners by name	
TL.17	Trainer can add learners to a session	
TL.18	Trainer can mark a learner as “attended”, “absent” or “left before end of session”	
TL.19	The ILT application records which learners were in attendance when each agenda item was covered	
TL.20	An ILT session can be part of a learning path	
	CONTENT CURATION	
TL.21	An SME can create groups of curated resources	
TL.22	Curated resources can be shared with specific job roles, groups etc.	
TL.23	Curated resources can be stored on the internet and be embedded within the learning platform	
TL.24	Resources can stored on the internal network and be embedded within the learning platform	
TL.25	Resources can reside on 3rd party platforms and be embedded within the learning platform	
TL.26	Learners can rate curated content	
TL.27	An SME can view learner ratings for each item of curated content	

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
	CONTENT AS A SERVICE	
TL.28	API for 3rd part content services	
TL.29	Content can be added to paths	
TL.30	Content can be added to curated groups	
	ASSIGNING LEARNING TO USERS	
TL.31	Learning content can be assigned to users based on group membership	
TL.32	A learner can belong to multiple groups	
TL.33	A learner can be assigned learning content due to an expiring skill	
TL.34	A learner can be assigned content based upon results of an observation checklist	
TL.35	A learner can be assigned content by a coach as a result of a coaching activity	
TL.36	A learner can be assigned content based on performance in other content	
TL.37	A learner can be assigned content based on completion of a prerequisite course	
TL.38	A supervisor can assign learning content to a learner	
TL.39	A preceptor / NDP can assign learning content to a learner	
	SELF-SERVICE CONTENT	
TL.40	Administrators can create content libraries and link them to a group or job role	
TL.41	Administrators can create content libraries and link them to a specific user	
TL.42	Libraries can be categorized for easy navigation by learners	
TL.43	Learners can locate and start content from libraries	
TL.44	Learners can rate learning content	
	PERFORMANCE SUPPORT CONTENT	
TL.45	Can create libraries of performance support content	
TL.46	Can share performance support libraries to groups	
TL.47	Can share performance support libraries to individual users	
TL.48	Can share performance support libraries based on location or job role	
TL.49	Can embed content within the learning environment from other services, such as a DMS, a video streaming service or an Exchange Server	

User Types and Roles

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
	CLINICAL EDUCATORS	
UT.01	Reduces administrative workload for clinical educators	
UT.02	Automates administration tasks for clinical educators	
UT.03	Provides clinical educators with rapid access to employee skills and competencies	
UT.04	Provides clinical educators with access to employee training outcomes	
UT.05	Provides clinical educators with access to employee training transcripts	
UT.06	Supports coordination of training tasks between clinical educators	
	ATTENDING PHYSICIANS + PRECEPTORS	
UT.07	Allows attending physician to select and view all those on the current rotation	
UT.08	Supports the pairing of a named preceptor to a named graduate nurse	
UT.09	Supports the attending physician's and preceptor's need to assess learning needs and set goals for the learner	
UT.10	Supports the creation and assignment of training plans by the attending physician and preceptor for the learner	
UT.11	Enables the evaluation of clinical competence by the preceptor	
UT.12	Enables the documenting of BOTH learning and clinical progress	
UT.13	Enables the attending physician and preceptor to record the results of a coaching session, including agreed actions and feedback from the learner	
	NDP PRACTITONERS	
UT.14	NPDs can view a real-time skills matrix by location	
UT.15	NPDs can view training and on-the-job assessment tasks by location	
UT.16	NPDs can view and complete task they are responsible for	
UT.17	NPDs can view and complete team tasks	
UT.18	Historical training records or each nurse are available to each NPD	
UT.19	NPD can view expired and expiring competencies for each location	
UT.20	NPD can view expired and expiring competencies for each individual	

Competencies and Skills

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
	MANAGING COMPETENCIES AND SKILLS	
CS.01	Administrator can create competencies and associated competency levels	
CS.02	Administrator can create skills and associated skill levels	
CS.03	A verification method can be defined for each skill	
CS.04	A skill can be verified by course completion	
CS.05	A skill can be verified by course attendee's self-rating	
CS.06	A skill can be verified by course peer rating	
CS.07	A skill can be verified by a preceptor/NPD rating	
CS.08	A skill can be set to expire after a period of time	
CS.09	A skill can be set to decay over a period of time	
CS.10	Learners and their supervisors can be notified by email that a skill IS ABOUT TO expire	
CS.11	Learners and their supervisors can be notified by email that a skill is HAS expired	
CS.12	Administrator can attach competencies and skills to job roles	
CS.13	Learners can view competencies and skills for job roles and assess their current competencies and skills against the requirements for the role	
CS.14	Learners and administrators can view gaps between current competencies and skills and selected job roles	
	REPORTING ON COMPETENCIES AND SKILLS	
CS.15	Administrators can create skills matrix reports and share them with specified groups	
CS.16	Group permissions restrict the view of a group member to specific learners	
CS.17	Report users can filter reports by user, skills etc.	
CS.18	Report users can view and amend template reports created by an administrator	
CS.19	Skills matrix users can create their own reports (within their granted permissions)	
CS.20	All reports can be downloaded in .csv or Excel format	
	OBSERVATION CHECKLISTS	
CS.21	Preceptors and NPDs can view a list of the observations that need to be completed by learners	
CS.22	Preceptors and NPDs can view a list of observations that are in progress and need completing by learners	
CS.23	Preceptors and NPDs can save an incomplete observation to be completed at a later date	

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
CS.24	Report users can view and modify template reports created by an administrator	
CS.25	Successfully completed observation checklists can automatically award a skill to a learner's record	
CS.26	Observation checklist can be accessed by desktop, tablet and mobile devices	
CS.27	Observation checklists can be accessed from workstation on wheels (WOW)	
CS.28	Use of observation checklist creates an audit trail	
CS.29	Administrators can create and amend observation checklists	
CS.30	Administrators can add observation checklists to a training path	
CS.31	Administrators can assign scores to items in an observation checklist	
CS.32	Administrators can assign success / unsuccessful scores to an observation checklist	
CS.33	An observation checklist can be attempted again if an initial attempt is unsuccessful	
CS.34	Administrators can determine whether an observation checklist can be reattempted and can limit the number of attempts allowed	
CS.35	Checklist data can be recorded and saved against a learner's record	
	SKILL VERIFICATION CHECKLIST	
CS.36	Learner can view skills for which they need verification	
CS.37	Learner can view approved verifiers for each skill	
CS.38	Verifier is notified by system of skill verification task	
CS.39	Verifier can rate a learner against the skill criteria	
CS.40	Learner is notified of the verification outcome	
	COACHING	
CS.41	Face-to-face coaching tasks can be assigned to supervisors through pathway tasks	
CS.42	Supervisors can record ad-hoc face-to-face coaching sessions	
CS.43	Supervisors can search for coaching checklists, preview and use them with a learner	

Career Development

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
CD.01	Administrator can define career training paths	
CD.02	Learners can view their own current skills and those needed for other roles	
CD.03	Career training paths can be shared with groups	
CD.04	Career training paths can be searched and selected by learners	
CD.05	Learners can self-register for a career training path	

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
CD.06	Supervisors and NPDs can review a learner's progression through a career training path	
CD.07	Supervisors and NPDs receive notifications when key steps are completed by a learner	

Technical Environment

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
TE.01	LMS supported on WOWs / COWs	
TE.02	Voalte communication devices	
TE.03	Department-issued iPAds and tablets	
TE.04	BYOD devices for nursing staff	
TE.05	BYOD devices for physicians	
TE.06	BYOD devices for auxiliary staff	
TE,07	Workstations	

Systems Integration

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
SI.01	LMS can be integrated to multiple systems via well-known APIs to support the creation, deletion and amendment of user accounts	
SI.02	The LMS supports the upload of user account data via CSV including data such as group membership, job roles, location and cost codes	
SI.03	The LMS Administrator can create customer fields in the main LMS "database" to adapt the system to the requirements of the organization's existing systems	
SI.04	The LMS can export user data via CSV to support the update of external (unconnected) systems; such data to include all "system of record" requirements	
SI.05	The LMS can be integrated into the existing SSO that is implemented by the organization	

Security Considerations

REF	REQUIREMENT	COMPLIANCE (YES, PARTIAL, NO)
SC.01	HIPAA BAA	
SC.02	SOC 2 – Type 1	
SC.03	SOC 2 – Type 2	