An Update on Developing a Learning Management System & A Framework of Technical Competencies

Lutz Mailänder
Head, Cooperation on Examination and Training Section
PCT International Cooperation Division

Geneva
13 June 2019
Agenda

- Web-based site icblm.moodlecloud.com for
  - testing some functions of Learning Management System (LMS), and for
  - viewing the competency framework (CF)

- Testing includes
  - Viewing and editing learning plans and learning plan templates
  - Taking an assessment to demonstrate proficiency of selected competencies included in a learning plan

- For more information on LMS and CF see presentations at earlier side events of PCT WG 11 and 10 (available on meeting websites)
Competency model/framework/dictionary

- Competency models derived from/related to job descriptions: "job deliverables"
- Different categories
  - Behavioral, e.g. communication, managing,..
  - Technical (functional) competencies
- To attain/demonstrate a specific technical competency, a set of distinct
  - skills and
  - knowledge elements is required

- Competencies may be
  - Generic (applicable to examiners from all jurisdictions)
  - Related to national specifics (depending on national legislation)

- Individual competency models (learning plans) include generic and custom competencies (skills/knowledge)
Community driven, globally supported.

Welcome to the Moodle community and discover the value of an open, collaborative effort by one of the largest open-source teams in the world.

COMMUNITY FORUMS
Sites (localisations)

Local WIPO SITE

Moodlecloud WIPO SITE

IPOPHL SITES

Other IPO sites?
Web based Moodlecloud test site

ASPAC Individualized and Competency Based Learning Management for Patent Examiners

Username: pct_wg
Password: pctwg1234
ASPAC Individualized and Competency Based Learning Management for Patent Examiners

What is this about?

This is a test site for demonstrating functionalities of a system for managing the competency based training of patent examiners

- editing competency frameworks
- recording users and roles of users (trainees/trainers/managers)
- creating learning plans for individual users in terms of competencies
- describing learning activities in terms of competencies
- assigning activities to users
- tracking participation in (learning) activities
- assessing success of learning in terms of competencies for individuals and cohorts
- self-assessments prior/past learning activity
- reporting to senior managers/supervising authorities
- delivering courses (learning content)
- developing course content

Do you like this demo?
Web based Moodlecloud test site for admin

Full range of capabilities for admin
Limited for user pct_wg
Web based Moodlecloud test site after login

Username

Limited range of capabilities for user pct_wg

ASPAC Individualized and Competency Based Learning Management for Patent Examiners

Site administration

Competencies

Learning plan templates

You are logged in as PCT WG (Log out)

Home

Data retention summary

Get the mobile app

Policies
Capabilities of user **pct_wg**
- View participants and cohorts
- View own user profile (including own learning plans)
- View and create learning plan templates
- Create and edit own individual learning plans by selecting competencies from competency framework
- View competency framework (no editing possible)
- View course categories and courses (creating new courses not possible)
- Link competencies to courses
- Take assessment (as course activity) to achieve proficiency of selected competencies
Web based Moodlecloud test site after login

- Edit user profile
- Take course/assessment
- Link competencies to own courses
- View participants
- View courses where pct_wg is enrolled and other courses
- View and edit learning plan templates and view cohorts

What is this about?

This is a test site for developing and testing competency based learning plans for individuals and cohorts.

- editing competency framework
- recording users and roles
- creating learning plans for individual users in terms of competencies
- describing learning activities in terms of competencies
- assigning activities to users
- tracking participation in (learning) activities
- assessing success of learning in terms of competencies for individuals and cohorts
- evaluating trends prior/past learning activity
- senior managers/supervising authorities
- course (learning content)
- course content

Knowledge assessment - examination in the PCT national phase
All courses...

Learning plans
My plans
PCT WG Trial Learning Plan Template
worksharing

Do you like this demo?
Learning plans in profile of trainees

Click to access profile

Learning Plan:
Skills to be learned
Adding and editing learning plans of trainees
Edit learning plan (individual competency model)

Competency picker

ICBLM generic patent examiner competency framework_14052019
  - International Legal and Institutional Framework
  - National Legal and Institutional Framework - Philippines
  - Patent Information
  - Patent Classification
  - Generic Substantive Examination
  - Technology Specific Substantive Examination
  - Generic Search Methodologies
  - Technology Specific Search Methodologies
  - Databases and Tools for Prior Art Search
  - Work-Sharing
  - Procedural Tasks of Patent Prosecution
  - Formality Examination
  - Miscellaneous

Add competency button
Option for viewing competency framework

Click to view full competency framework
ICBLM generic patent examiner competency framework_14052019

Generic Competency Framework focusing on technical competencies for substantive patent examiners

Includes further developments of the version of March 26, 2019

Competencies

- International Legal and Institutional Framework
- National Legal and Institutional Framework - Philippines
- Patent Information
- Patent Classification
- Generic Substantive Examination
- Technology Specific Substantive Examination
- Generic Search Methodologies
- Technology Specific Search Methodologies
- Databases and Tools for Prior Art Search
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- Formality Examination
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<tr>
<td>J.01.01</td>
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</tr>
</tbody>
</table>

Trainee’s proficiency & Finding suitable courses
Finding suitable courses

Suitable courses covering selected competency

Linked courses

Courses linked to this competency

1. Knowledge assessment - examination in the PCT national phase KA Exam PCT NP

Work-Sharing J
Path: ICBLM generic patent examiner competency framework_14052019 /
Rating: Not yet competent
Status: -

Objectives of work-sharing J.01
Path: ICBLM generic patent examiner competency framework_14052019 / J
Rating: -
Status: No

Explain how work-sharing may improve the over-all quality of examination J.01.01
Path: ICBLM generic patent examiner competency framework_14052019 / J / J.01
Rating: -
Status: No
Assigning competencies to training activities

Course: Knowledge assessment national phase

You are proficient in 0 out of 1 competencies in this course.

Competencies most often not proficient in this course

Work-Sharing J

Path:
ICBLM generic patent examiner competency framework_14052019

Upon course completion: Complete the competency

No activities
LMS: Managing course assignment

- Examiner
  - Individual Competency model
    = learning plan

- Office
- Generic Competency model

- LMS
- Individual curriculum
- Competent Examiner
- Openings in training courses
- Donors
- Prerequisites for participation
LMS: Tracking Learning Progress

Examiner

Individual competency model

Individual curriculum

LMS

Examiner self assessment
- prior learning
- course learning

Donor assessment
- course learning

WIPO Assessment Learning Success

Skills | required | participated | validated
---|---|---|---
A | ☒ | ☒ | ☐
B | ☒ | ☒ | ☒
C | ☐ | ☐ | ☐
...

Skills table:
- A: Required, participated, validated
- B: Required, participated, validated
- C: Required, participated, validated
Assessments

- Self-Assessments
  - before/after training activity
  - Independent of training activity, for example with enrollment in LMS
- Validated assessments (by means of test/exam)
  - After specific training activity
  - Independent of specific training activity, for example after self-assessment
Self-assessments (sample from local LMS site)

OJT 2018 DIP BT at IPOPHL

Question 1: How would you rate your ability to assess clarity of claims?
- Very low
- Low
- Medium
- High
- Very High

Question 2: How would you rate your ability to assess novelty and inventive step of claimed subject matter in view of given prior art?
- Very low
- Low
- Medium
- High
- Very High
Self-assessments (sample moodlecloud site)

Self-Assessment Option 1 (Feedback)

Self-Assessment work-sharing skills

Mode: User's name will be logged and shown with answers

Please rate your ability regarding the following competency

Determine the members of the simple family of a given application

- very confident
- confident
- somehow confident
- less confident
- not confident
- need training

Determine the members of the extended family of a given application

- very confident
- confident
- somehow confident
- less confident
- not confident
- need training

There are required fields in this form marked 🔴.

Submit your answers  Cancel
Assessment test for competency 'family relations'

Worksharing

Quiz Navigation

Question 4
Not yet answered
Marked out of 1.00
Flag question
Edit question

Check if the simple and the extended families of the following application are equivalent: PCT/EP2007/053015

Select one:
- True
- False

Finish attempt...

Start a new preview

Previous page

Next page

Administration

Quiz administration
- Edit settings
- Group overrides
- User overrides
- Edit quiz
- Preview
- Results
- Locally assigned roles
- Permissions
- Check permissions
- Filters
- Logs
- Backup
- Restore
- Question bank

Course administration

Site administration

WIPO
World Intellectual Property Organization
Knowledge assessment - examination in the PCT national phase

A patent application may claim priorities from several different countries.

Select one:
- True
- False

Next page
Assessment test (sample moodlecloud site)

To see correct answers and explanation:

(i) Finish attempt
(ii) Submit attempt

Knowledge assessment phase

Started on: Wednesday, 12 June 2019, 9:28 PM
State: Finished
Completed on: Wednesday, 12 June 2019, 9:28 PM
Time taken: 22 secs

Question 1
Correct
Marked out of 1.00
Flag question

A patent application may claim priorities from several different countries.

Select one:
- True
- False

True; the Article 4 (F) of the Paris Convention expressly allows so and defines no limits, neither for the number of priorities nor the number of countries where the priorities originate from.
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<td>Student</td>
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<td>Dave Simmons</td>
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<td>Ken Natsume</td>
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</tr>
<tr>
<td>Khodile Nangosi</td>
<td>Student</td>
<td>No groups</td>
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</table>
List of users (any roles, e.g. trainees, managers,..)

Admin view

Participants
No filters applied

Number of participants: 16

<table>
<thead>
<tr>
<th>First name</th>
<th>Email address</th>
<th>Department</th>
<th>Institution</th>
<th>Country</th>
<th>Roles</th>
<th>Groups</th>
<th>Last access to site</th>
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</thead>
<tbody>
<tr>
<td>Abdulghani</td>
<td><a href="mailto:aduferei@moic.gov.bh">aduferei@moic.gov.bh</a></td>
<td>Bahrain</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Andrew</td>
<td><a href="mailto:andrewmichael.ong@wiipo.int">andrewmichael.ong@wiipo.int</a></td>
<td>ASPAC</td>
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<td><a href="mailto:marjsdeluna@gmail.com">marjsdeluna@gmail.com</a></td>
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<tr>
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</tr>
</tbody>
</table>
List of cohorts

Cohorts: Groups of users

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<tr>
<th>Name</th>
<th>Cohort ID</th>
<th>Description</th>
<th>Cohort size</th>
<th>Source</th>
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<td>IPOPHL chemistry examiners</td>
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</tbody>
</table>
What is ASPAC LMS used for?

- Developing and editing generic and customized CF
  - Hierarchical structure
  - Cross referencing
  - Competence (proficiency) scales
- Defining individual competency models (learning plans)
  - by selecting from generic CF
  - by further editing
- Recording office staff (users) and assigning them different roles (student, teacher, .. IPO specific roles)
- 'Grouping' of users (cohorts; reflecting organizational structure of IPO)
- Recording specific training activities (courses) organized by various institutions
- Describing learning outcomes of specific training activity in terms of competencies
What is ASPAC LMS used for?

- **Tracking participation** of users in training activities
- **Tracking learning progress** (success of learning): Assessments
- Identifying training gaps
- Assigning suitable training activities to fill training gaps (in terms of competencies)
  - Finding suitable courses
  - Checking prerequisites for participation (required competencies)
- Reporting on
  - Learning activities carried out
  - Progress and success of learning of staff (competency/proficiency levels)
  - Training needs
Further applications of LMS

- Develop courses
- Deliver courses <> **RPEM learning content (IPOPHL)**
- Performance management
National specifics?

Competencies

ICBLM patent examiner competency framework (copy)
Generic Competency Framework focusing on technical competencies for substantive patent examiners.

Competencies

ICBLM patent examiner competency framework (copy)
- International Legal and Institutional Framework
- IPOPHL Specific Competencies
- Patent Information
- Patent Classification
- Generic Substantive Examination
- Technology Specific Substantive Examination
- Generic Search Methodologies
- Technology Specific Search Methodologies
- Databases and Tools for Prior Art Search
- Work-Sharing
- Procedural Tasks of Patent Prosecution
- Formality Examination
- Miscellaneous

Selected domain

Edit

IPOPHL Specific Competencies NF
This unit covers the national specifics of the jurisdiction which applies the competency framework.

Cross-referenced competencies:
No other competencies have been cross-referenced to this competency.
IPOPHL Specific Competencies

Generic Competency Framework focusing on technical competencies for substantive patent examiners.

Competencies

- National Legal and Institutional Framework
- IP Publication Policy
- Generic Substantive Examination
- Disclosure Requirement
  - Determine whether the source or origin of IKSP is disclosed in the patent application
    - Check whether free & informed prior consent of indigenous cultural community has been complied with
- Prior Art
- Novelty
- Technology Specific Substantive Examination
- Search Methodology
- Search and Examination Resources and Tools
- Work-Sharing
- Composing Reports
- Examination in the PCT National Phase
- Formality Examination
- Patent Administration

Selected competency

Determine whether the source or origin of IKSP is disclosed in the patent application
IPOPHL.CBT.FieldofLearning.3.A.1

Joint IPOHNL-NCIP Administrative Order No. 01, 2016, Rule 6.a)

*IKSP=Indigenous Knowledge Systems and Practices

Cross-referenced competencies:

No other competencies have been cross-referenced to this competency.

Add skill
Philippines national specifics

IPOPHL Specific Competencies

Generic Competency Framework focusing on technical competencies for substantive patent examiners.

Competencies

- National Legal and Institutional Framework
- IP Publication Policy
- Generic Substantive Examination
- Technology Specific Substantive Examination
  - Pharmaceutical Inventions
    - Subject Matter Excluded from patent protection
    - Medical Use Claims
      - Identify the legal basis of granting medical use in PH
      - Identify which claims are construed as method of treatment claims
    - Biotechnological Inventions
    - ICT and Computer Implemented Inventions
  - Search Methodology
  - Search and Examination Resources and Tools
  - Work-Sharing
  - Composing Reports
- Examination in the PCT National Phase
- Formality Examination
- Patent Administration

Selected skill

- Edit

*Identify which claims are valid medical use claim in PH*

IPOPHL.CBT.FieldofLearning.4.A.2c

Revised QUAMA Guide 2018 @p14

Cross-referenced competencies:

No other competencies have been cross-referenced to this competency.

Add competency
EXAMINATION PROCEDURES AND GUIDELINES FOR PATENTS

2. Guidelines on the Examination of Information Communications Technology and Computer-Implemented Inventions
3. Guidelines on the Examination of Biotechnological Applications
4. Revised Guidelines on the Examination of Pharmaceutical Applications Involving Known Substances (QUAMA Guide)
The way forward: competency framework

- Compatibility of ICBLM CF with CBT frameworks of RPET-Mentoring
  - Concordance tables <-> IPOPHL skills inventory
  - Harmonizing wording
- Develop sample domain 'National Legal and Institutional Framework' in cooperation with interested office > IPOPHL legislation/guidelines
- Add further skills, in particular skills enabling assessments
  - for example, database or technology specific skills ongoing (collaborations?)
  - Cooperate with expert bodies like IPC Committee of Experts
- Add explanations
  - Links to PCT S&E Guidelines ongoing
- Review hierarchical ordering
  - As few levels as possible
- Review codes/symbols used for each framework element
Thank you

lutz.mailander@wipo.int