

**UNITED STATES
PATENT AND TRADEMARK OFFICE**



Patent Quality Initiatives

June 2018

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Ongoing Patent Quality Initiatives

- Diagnostic Interview Pilot
- Application Readiness
- Other Efforts

Diagnostic Interview Pilot

Purpose of Diagnostic Interview Pilot

To evaluate:

- The effectiveness of diagnostic, i.e. pre-search, interviews for providing more focused searches prior to first action on the merits for improving overall examination
- The value of a diagnostic interview with respect to understanding the invention and claim interpretation will also be assessed

Impacts of Diagnostic Interview

Facilitate Search and Improve Examination

Terms of Art

Field of
Invention

Inventive
Concept

Claim
Interpretation

101

112 (a), (b) or
(f)

Desired Examination Impacts



Clarity of
Record



Overall
Prosecution
Time

Diagnostic Interview Pilot Summary

- MOU with POPA signed on January 30, 2018
- Approx. 120 GS12-15 examiners with at least 2 years experience volunteered from all utility TCs
- Pilot began on March 4, 2018 (lasts 14 bi-weeks, PPs 12-25, extendable)
- Pilot Assessment
 - MRF & interview summary reviews by OPQA
 - Survey results
 - PALM metrics

Participants will:

- Self-Select Eligible Applications
- After reading application, but before searching, determine if interview is needed
 - Fill out Pre-Interview Survey
- If so, conduct interview
 - Fill out Post-interview Survey
- Attend at least 2 focus sessions to provide feedback on interview effectiveness

TC SPE POC Duties

- Assist with focus sessions
- Monitor mailbox and SharePoint site
- Answer questions from participating examiners in respective TCs
- Perform other team duties as assigned

Surveys

- Pre-Interview Survey captures
 - Why the examiner felt a diagnostic interview would be appropriate
 - Information related to an attorney's decision to go forward with the interview
- Post-Interview Survey captures
 - Aspects related to the disclosure and claim interpretation that were discussed in the diagnostic interview that will assist the examiner with searching the application

Application Readiness

Considering Quality More Broadly

- Quality assessments have traditionally focused on USPTO work products - from first Office action quality to PTAB decisions
- The “Big Q” perspective must address the quality of every interaction, touchpoint, and system actor
- A reasonable starting point for this broader consideration of quality is incoming applications

Application Readiness

Attributes integral to the patent application file that enhance the ability of examiners to efficiently and effectively navigate through the examination

Survey of Examiners

- Survey administered to random sample of patent examiners in April 2017
 - ~850 responses
 - Representative of technology and experience level of examiners
- Content determined through focus groups
- 29 attributes of application readiness for which examiners rated both **importance** (need) and the **frequency** (experience) with which the attribute was recognized

Measured Attributes

- Attributes measured on scale of 0 to 10
 - Importance (need) scale ranged from “Not Necessary” (0) to “Almost Essential” (10)
 - Frequency (experience) scale ranged from “Almost Never” (0) to “Almost Always” (10)
- Gap analysis identified areas where improvement in application quality could best enhance the examination process

Attributes: Specifications

Specifications	S1	"Background of the Invention" section that provides an overview of the technology and related art
	S2	Inventive concept clearly set forth
	S3	Difference between the invention and the prior art clearly described
	S4	Concise and complete "Brief Description of the Drawings" section
	S5	Specification clearly describes the referenced features in the drawings
	S6	Drawings show the inventive concept
	S7	"Detailed Description of the Invention" expands on the invention disclosed in the "Summary"
	S8	Preferred embodiments described in detail
	S9	Working examples present (mostly found in TC 1600 and 1700)
	S10	Working examples supporting scope of genus claims (mostly found in TC 1600 and 1700)
	S11	Definitions/guidance in the specification to aid in interpreting claim terms
	S12	Glossary of terms provided (separate section in the specification)
	S13	Clear boundaries defined when using exemplifications or inclusion of equivalents (1600/1700)
	S14	Clear terms and correct grammar and syntax
	S15	Specification that teaches the technology of the invention (reads well from a technology standpoint)
	S16	Providing a certified translation (if from a foreign applicant/entity)

Attributes: Claims & IDS

Claims	C1	Claims that are clear and correct in syntax and grammar
	C2	Independent claims that capture the same inventive concept disclosed in specification
	C3	Claim terminology that is highly correlated with language disclosed in the specification
	C4	Claims that are solely directed to the inventive concept (not broader than the inventive concept)
	C5	Claims that are logically organized from broadest to narrowest in scope
	C6	Claims that clearly denote whether 112(f) is invoked or not
	C7	Claim sets drawn to a single statutory class of invention
	C8	Claims that have only one reasonable interpretation
	C9	Reasonable/manageable number of claims

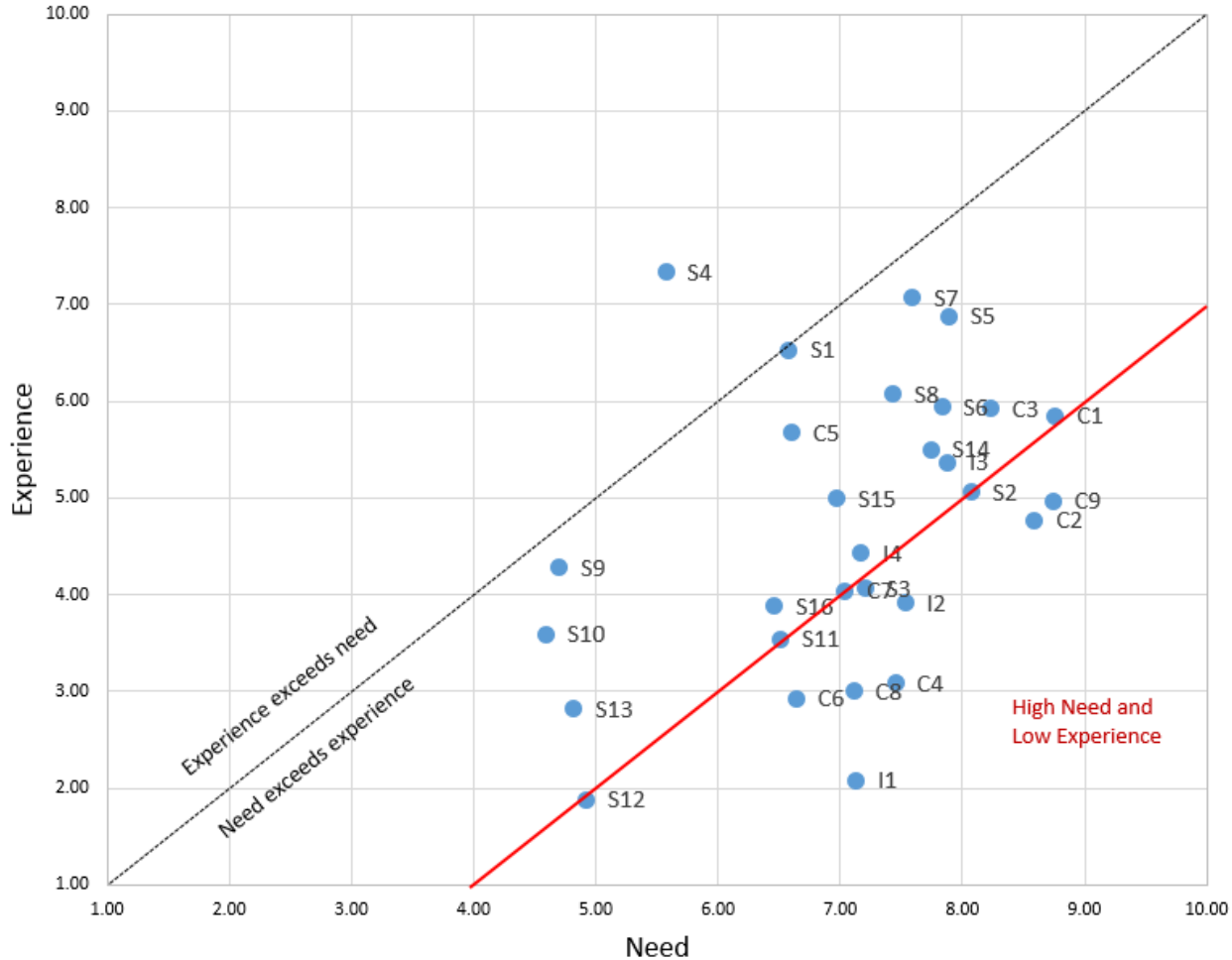
IDS	I1	IDS that includes the significance/relevance of each citation to the inventive concept
	I2	All citations in IDS in English (translations are provided with submission)
	I3	Reasonable/manageable number of references cited in IDS
	I4	PCT Search Reports relevant to inventive concept/claims

Summary of Findings

Top Needs

		Need	Experience	Gap
Specifications	Having the inventive concept clearly set forth	8.07	5.06	3.0
	Having the specification clearly describe the referenced features in the drawings	7.89	6.88	1.0
	Having the Drawings show the inventive concept	7.83	5.94	1.9
	Having the "Detailed Description of the Invention" expand on the invention disclosed in the "Summary"	7.59	7.07	0.5
	Having the preferred embodiments described in detail	7.43	6.07	1.4
	Using clear terms and correct grammar and syntax	7.74	5.50	2.2
Claims	Having claims that are clear and correct in syntax and grammar	8.76	5.85	2.9
	Having independent claims that capture the same inventive concept disclosed in specification	8.59	4.77	3.8
	Having claim terminology that is highly correlated with language disclosed in the specification	8.23	5.92	2.3
	Having claims that are solely directed to the inventive concept (not broader than the inventive concept)	7.45	3.08	4.4
	Having a reasonable/manageable number of claims	8.74	4.97	3.8
IDS	Having all citations in IDS in English (translations are provided with submission)	7.53	3.91	3.6
	Having a reasonable/manageable number of references cited in IDS	7.88	5.37	2.5

Summary of Findings



Next Steps

- Evaluate application readiness for impacts on timeliness and quality
- Confirm examiner perceptions
- Identify best practices for sharing and education
- If deemed valuable, establish monitoring and assessment program

Additional Questions We Are Asking

- What is the best way to quantify readiness?
- What is the best way to quantify impacts on timeliness or quality while controlling for other factors?
- Are examiner perceptions based on the occasional troublesome application or is it a systemic concern? Can Big Data help?
- Are the attributes of readiness something the applicants can effectively address? How can the Office assist?

Other Efforts

Focus of Current Quality Efforts

- Provide IP community with a reliable and predictable patent system
- Get the best prior art to examiners early in prosecution
- Subject Matter Eligibility
- Training

Other Efforts

- **Clarity of the Record**

- Working with external stakeholders to identify next steps for our clarity efforts

- **Customer Experience**

- Linking the external quality survey to other quality touchpoints, such as Patent Ombudsman and outreach and training efforts

- **Exploring New Technologies**

- Exploring how technology can be leveraged to assist with search and examination
 - Big Data
 - Natural Language
 - Artificial Intelligence

Types of Examiner Training

- Examiner training utilizing Stakeholder resources
- Stakeholder training at the USPTO

Stakeholder Education and Training

- Patent Examiner Technical Training Program (PETTP)
- Site Experience Education (SEE) Program
- Stakeholder Training on Examination Practice and Procedure (STEPP)
- vILT

Patent Examiner Technical Training Program (PETTP)

PETTP encourages innovation, strengthens quality, and improves accessibility of the patent system

- Technology experts are given the opportunity to provide relevant technical training and expertise to patent examiners
- Strengthens our patent system and fosters collaboration
- PETTP is an opportunity to provide patent examiners with necessary training from scientists and experts working directly in the various technologies throughout the USPTO
- The program helps Patent Examiner keep up with fast-changing and other advancements in technological fields

PETTP Lecturers and Locations

Lecturers

- Voluntary assistance from scientists, engineers, professors, and industrial designers participate as guest lecturers to provide USPTO training that is robust and reflects the state of the art

Locations

- In-Person
 - Presentations are made at our Alexandria, Virginia headquarters or at one of our regional offices: Dallas, Denver, Detroit, and San Jose
 - Technology Center Tech Fairs are held annually
 - Training delivered at each location is broadcast to patent examiners across the entire USPTO as well as international patent organizations in Canada and Mexico
- Virtual
 - Guest lecturers have the option of presenting a lecture virtually from their own location

PETTP FY 2017 to Date

- **FY 2017**
 - 395 total PETTP events
 - 63,002 hours of training
 - 18,911 Examiner participants
- **FY 2018**
 - 9 total PETTP events
 - 1,580 hours of training
 - 1,290 Examiner participants

Site Experience Education (SEE)

The USPTO funds travel costs for patent examiner Site Experience Education at commercial, industrial, and academic institutions within the continental U.S., which allows patent examiners to visit organizations and keep updated on the latest technologies and innovations in their field of examination.

On-Site Training and Examiner Impact

- **An Opportunity to Conduct On-Site Training**
 - The SEE Program presents an opportunity for organizations to provide patent examiners with technical training first-hand from innovators, scientists, engineers, and experts working directly in the various technologies examined throughout the USPTO
- **A Chance to Interact Directly with Patent Examiners**
 - The SEE program seeks to put experts such as innovators, scientists, and engineers together with examiners right where innovation is happening
 - Participating organizations have a chance to communicate directly with patent examiners and gain a greater understanding of the importance of the patent system and how it works

SEE FY 2017 to Date

- **FY 2017**
 - 272 Travelers
 - 20 Trips
 - 103 Sites visited in 8 States
- **FY 2018, through May**
 - 122 Travelers
 - 6 trips
 - 43 sites visited in 6 States

External Training for Stakeholders

- Stakeholder Training on Examination Practice and Procedure (STEPP)
- Virtual Instructor Led Training (vILT)

STEPP Program

The STEPP program is an important part of the USPTO's mission to deliver intellectual property information and education to external stakeholders and is designed to provide external stakeholders with a better understanding of how, and why, an examiner makes decisions while examining a patent application.

Stakeholder Training on Examination Practice and Procedure (STEPP)

- 3-Day training on examination practice and procedure for external Stakeholders
 - Agent/Attorney course
 - Inventor course
- Provide external Stakeholders with a better understanding of how and why an examiner makes decisions while examining a patent application
- Aid in compact prosecution by disclosing to external Stakeholders how examiners are taught to use the MPEP to interpret an applicant's disclosure

STEPP Results for FY 2018 to Date

FY 2018 to date

- **3-Day Agent/Attorney Course**
 - 91 total attendees
 - Overall rating of 96%
 - Held in Denver and Dallas Regional Offices

Virtual Instructor Led Training

- New for FY 2018 is a virtual instructor-led training (vILT) courses
 - One or more topics related to examination practice and procedure
 - Recent topics include:
 - Claim Interpretation - Product by Process
 - Functional Language Workshop - Claim interpretation and Definiteness Under 35 U.S.C. §112(b)
- More information on STEPP and vILT, including the course schedules and sign up information, can be found on the [Patent Quality site](https://www.uspto.gov/patent/initiatives/stakeholder-training-examination-practice-and-procedure-stepp#step2)*

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