

# GUIDING THE ACQUISITION OF PROFESSIONAL COMPETENCE BY GEOLOGISTS-IN-TRAINING

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# Purpose

- to inform on developing practices in Québec for registration of geologists
- NOTE: **WORK in PROGRESS**



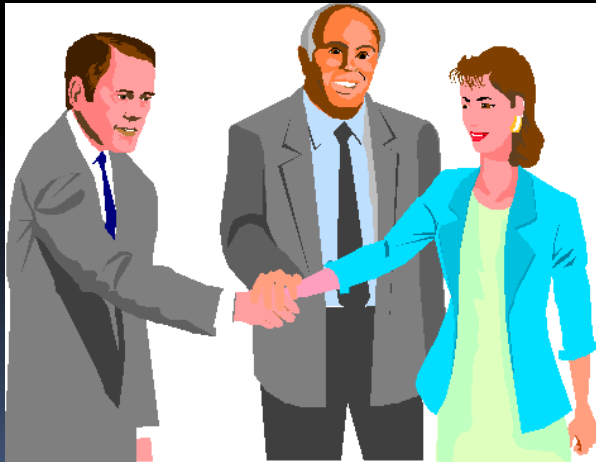
[http://ogq.qc.ca/files/media/pdf/git\\_training.pdf](http://ogq.qc.ca/files/media/pdf/git_training.pdf)

# Background: OGQ

- Ordre des géologues du Québec:
  - Autonomous organisation
  - With legal mandate
  - To regulate the profession of geology in Québec
- OGQ
  - Approx. 930 P.Geos + 180 GIT
  - 60-100 applicants/year, 1/2 from outside Canada

[http://ogq.qc.ca/files/media/pdf/git\\_training.pdf](http://ogq.qc.ca/files/media/pdf/git_training.pdf)

# The making of a P. Geo.



Intellectual & physical capacity,  
language, culture, basic  
knowledge, attitude.

+ University degree

= Scientific knowledge, limited skills

+ Experience

= Scientific & technical knowledge &  
skills, administrative & legal skills,  
ethics

= **Competent ethical professional**


# Admissions regulations

Admissibility for entry to profession based on

1. an accredited diploma (listed in legislation of Québec) or equivalent
  1. makes for simple & reliable definition of academic training but more challenging to assess equivalency for “foreign” applicants
2. Minimum relevant experience
  - Very important contribution to competence
  - Difficult to document
  - Difficult to achieve objectives consistently and reliably




# Competence

- Ability to perform a task to certain standards
  - Demonstrated by effective performance
  - Defined & observed by practitioners and users of services
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# Competence project 2010-2014

1. Define competences expected of entry level P.Geo.: product is Compendium of competencies for entry level geologist
  2. Develop assessment tools
  3. Implement into admissions process
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# Acquisition & assessment

- Review of curricula & faculty confirm:
    - Professional competencies not acquired nor assessed at graduation
  - Post-graduation experience:
    - Essential formative period for acquisition of professional competencies
    - No standard nor guidance for effective training provided in experience nor for its assessment
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# Method for assessment of competence

- Multiple methods exist but:
  - directly observing performance of candidates in practice : **Insufficient resources**
  - realistic clinical tests: **Insufficient resources**
  - Written exams: **do not allow evaluation of numerous competencies nor personal qualities**
- Conclude that **Portfolio is best strategy** for development & assessment of competencies and personal qualities by geologists in training




# Portfolio

- Systematic collection of information pertaining to the progress towards mastery of a competence with respect to set criteria.
  - Favors reflexive practice & autoregulation
  - Allows continuous evaluation based on real life observation of practice
  - Places responsibility on GIT
- 



# Design of apprenticeship


- Objective: provide tools for guiding the acquisition of required competencies through experience
  - Steps:
    - Select competencies & qualities to monitor
    - Define criteria and supporting documentation
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# How?

- Give GIT and Training supervisor objectives & progress targets with reporting templates
- Empower the GIT with managing progress
- Give supervisor responsibility to ensure adequate professional development of GIT
- Notes:
  - GIT is prescreened to have adequate academic training
  - Tutor (supervisor) has minimal experience as PGeo




# Process under regulation

- GIT registered with limited rights & obligations
  - Supervisor must assume responsibility:
    - Give feedback to GIT on progress vs criteria & target indicators
    - Assess : judge on attainment of level of competence
  - Periodic reporting by GIT vetted by supervisor
  - Review by OGQ
  - Process ends with fulfillment and granting of license or abandonment
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# Instruments

- Guidance documents
  - Reporting summary tables
  - Reporting templates for:
    - Personal qualities: 2-3 statements of behaviour demonstrating quality
    - Professional competencies: 2-3 activities at 4 levels of performance: below par, entry level, expected performance at end of training, typical performance of mature P.Geo.
    - Contextual competencies: complex structure detailing expected activities in a given Task with examples
  - Artefacts: examples of work done are kept on file by GIT for eventual review by board of examiners
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# Questions?

Find extensive paper at:

[http://ogq.qc.ca/files/media/pdf/git\\_training.pdf](http://ogq.qc.ca/files/media/pdf/git_training.pdf)

