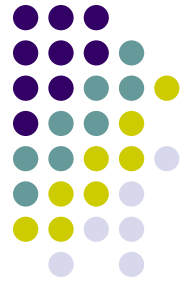




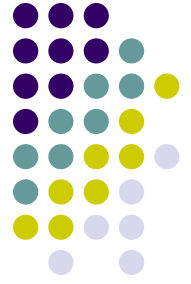
Professor Hausi A. Müller PhD PEng FCAE
Department of Computer Science
Faculty of Engineering
University of Victoria

<http://www.engr.uvic.ca/~seng321/>
<https://courses1.csc.uvic.ca/courses/201/spring/seng/321>



SENG 321 Calendar

Quiz 1	Wed, Feb 24	In class	2% of course
Midterm (revised)	Wed, Mar 2	In class	14% of project
Deliverable S2a (revised)	Fri, Mar 4	S2a Detailed req spec; conceptual design	10% of project
Deliverable S2b (revised)	Tue, Mar 8	S2b Class presentation of S2a to customer	5% of project
Deliverable C2 (revised)	Thu, Mar 10	C2 feedback on S2a&S2b	5% of project
Deliverable S3a	Tue, Mar 15	S3a Technical Design Spec	15% of project
Deliverable S3b	Tue, Mar 22	S3b Manual	10% of project
Deliverable C3	Thu, Mar 24	C3 feedback on S3a&S3b	10% of project
Easter break	Mar 25-28	Fri, no class	
Deliverable S4	Mar 29-31	S4 project demo	10% of project
Deliverable C4	Mar 29-31	C4 feedback on S4	5% of project
Last Day of Classes	Fri, Mar 31		
Final Exam	Sat, Apr 16	19:00-22:00 ECS 125	35%



Announcements

- S2 & C2
 - Posted
 - S2 number of pages
 - Prototype sophistication
- Fri, March 4
 - S2a due
- Tue, March 8
 - S2b due
 - Presentations in labs
 - **Attendance required**
- Thu, March 10
 - C2 due
 - Feedback on S2a & S2b

- **Final Exam**
 - Sat, April 16
 - 19:00-22:00
 - ECS 125



The S2b Show

Prep

- 5 - 7 polished slides (at most) in pptx, ppt, or pdf form
- **Send slides to submit@rigiresearch.com by Monday — 11:55 pm**
- **Team number (e.g., Team 7) on every slide**
- Order of presentation arranged by TAs

Developers presentation

- Entire group must be on stage
- 7 min → Presentation
- 2 min → Questions
- Presenters: 1-4 people

Customers questions

- Entire group must be on stage
- Customers must ask two “good” questions

Audience

- Must evaluate every developer presentation using evaluation form

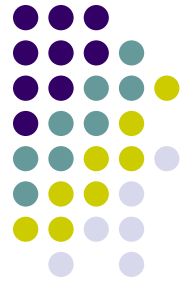


Evaluation Form

SENG 321 S2b Presentations Evaluation Form

Evaluator's name:		
Team 1: Trevor Baker, Chris Carr, V. Louis Kraak, Diksha Sharma		
Quality of presentation		
Developers: Do I know now what the project is all about?	5	
Developers: Did the presenters communicate the requirements effectively?	5	
Developers: Did I learn something? Did the presentation stimulate my interest?	5	
Developers: Presentation style: positive attitude; excited about the subject?	5	
Developers: How did the presenter perform in the Q&A session?	5	
	Subtotal	25
Detailed explanation — required		

Code of Ethics



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- 7) Conduct themselves with fairness, courtesy and good faith towards clients, colleagues and others, give credit where it is due and accept, as well as give, honest and fair professional comment;
- 8) Present clearly to employers and clients the possible consequences if professional decisions or judgments are overruled or disregarded;
- 9) Report to their association or other appropriate agencies any hazardous, illegal or unethical professional decisions or practices by members, licensees or others; and
- 10) Extend public knowledge and appreciation of engineering and geoscience and protect the profession from misrepresentation and misunderstanding.





Review Techniques

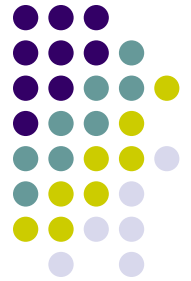
- Reading and signing off
- Walkthroughs
- Formal inspections
- Focused inspections
- Active reviews
- Checklists



Reading and Signing off

- Reading
 - Read and look for errors
 - We all don't see mistakes in our own work, and it is beneficial to have someone else look at our own work
- Signing off
 - Reviewer signs off (approves) after reading the document
 - Makes the reviewer partly responsible if errors are subsequently found in the document—P.Eng.
 - Encourages the reviewer to be more thorough
 - Best not to have the author do this!

You are doing reviews to complete C2 😊



Review Techniques

- Reading and signing off
- **Walkthroughs**
- Formal inspections
- Focused inspections
- Active reviews
- Checklists



Types of Group Reviews

- Walkthroughs
 - Informal, often high-level overview
 - Often led by author/expert to educate others on his/her work
 - Goal may be knowledge transfer or finding errors or both
 - Highly successful
- Inspection
 - Structured inspection of requirements (or code)
 - Usually, a very detailed examination of an artifact
 - Participants have defined roles; preparation required; paperwork generated; often follow-ups too.



Walkthroughs

- An expert or the author presents the specification
 - The other participants ask questions and give comments
- The tone of the meetings is informal.
- Participants may have different levels of understanding going into a walkthrough, so walkthroughs can also be tutorials.
- Advantage
 - Few demands on the participants, so reviewers may be more likely to attend than if they had to read the document in order to participate.

Walkthroughs



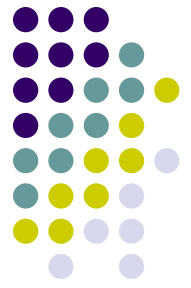
Walkthroughs are used more often in reviews of requirements documents than in reviews of other software documents

- Reviews of requirements documents involve a large number of people, since there are usually a large number of stakeholders to consult, and it may prove impossible to get everyone prepared for a more formal review.
- In such cases, a walkthrough may be the only reasonable way to ensure that the stakeholders have actually looked at the material.
- With a large audience, preferably one that represents a broad cross section of skills and viewpoints, there is a hope that there are no major oversights in the requirements
- In other words, multiple heads are better than one, and redundancy helps.



Review Techniques

- Reading and signing off
- Walkthroughs
- **Formal inspections**
- Focused inspections
- Active reviews
- Checklists

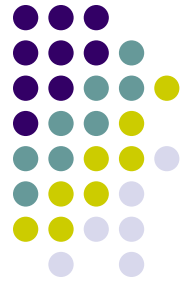


Formal Inspections [Fagan 1976]

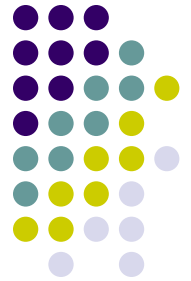
- A formal inspection is a **managed** review process, with rules concerning participants and roles, and with strict entry and exit criteria for each step in the process.
- The idea behind formal inspections is to improve the quality of the requirements specification.
- The purpose of the **walkthrough** is to gain some assurance that there are **no major oversights** in the requirements document.
- The purpose of the **formal inspection** is to strive for a **zero-defect** requirements specification.

http://en.wikipedia.org/wiki/Fagan_inspection

Process for Formal Inspection

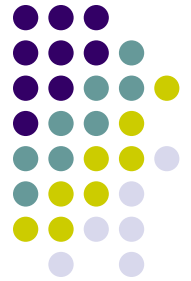


- Formal inspections are characterized by rules on who should participate, how many reviewers should participate and what roles they should play
 - There should be from 3 to 5 reviewers:
 - author, moderator (\neq author), and other reviewers
 - The **author**, who is typically the main author of the requirements specification, serves as the presenter of the SRS.
 - The **moderator** initiates the inspection, convenes the meeting, assigns roles, controls the meeting, decides whether to do another inspection, and prepares the other reviewers.
 - Other **reviewers** prepare for inspection by reading the requirements specification and identifying errors. This inspection is often performed using **checklists of common errors**—possibly different for each reviewer.



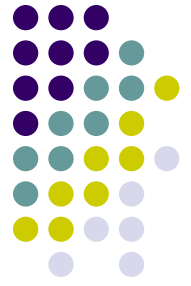
Postponing Meetings

- One of the moderator's responsibilities is to postpone the inspection meeting if it appears that a participant is insufficiently prepared
- If a meeting is postponed due to a particular reviewer, it is unlikely that the reviewer is unprepared again.



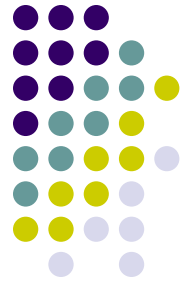
Formal Inspection Meeting

- Prior to the meeting, there is a **walkthrough** to familiarize the reviewers with the document to be inspected.
- Reviewers receive copies of the SRS, and each prepares for the inspection meeting by reviewing the SRS privately to find as many problems as possible, possibly according to his/her checklist.
- The focus of the inspection meeting is on **finding problems**, rather than **fixing them**.
 - No time is wasted to fix problems; indeed, a fix may be invalidated by a problem or fix found later. Fixing is left to the author after the inspection meeting.



Formal Inspections

- The moderator's main job at the inspection meeting is to keep the focus on finding problems and to cut off any digression to solution finding
- Usually if less than 5% of the material is reworked, there doesn't need to be another inspection. **Avoid analysis paralysis.**
 - You may consider having another inspection if even less than 5% is reworked
 - You should consider the criticality of the rework
 - It is common to introduce new problems when fixing old problems and these may need to be found by inspection.



Formal Inspections

- Inspection meetings are cut off after 2 hours.
 - Reviewers' error detection rates go down after 2 hours, and it is better to wait and continue only when the reviewers are fresh.
- An inspection is considered complete only when the rework is complete.
- Error data are collected, reported, and analyzed.
- **Important note**
 - The author's manager is not allowed to sit in on the review or to see the data! **Critical for success!!**
 - Inspections are not to be used for employee evaluation
 - Inspections are to be used to identify errors in the SRS so that the software can be fixed and future inspections can be improved.



Formal Inspections

- One of the motivations behind formal inspections is to give management a way of measuring and managing quality assurance.
- What can an analysis of detected errors tell us?
 - It can reveal new types of errors that should be added to the checklists to help with future inspections (i.e., process improvement)
 - It can identify projects that are likely to be problematic, because more errors were reported than usual.
 - Tracking and evaluation of entry and exit points can help determine whether the project is on schedule.



Reviewers are Human

con·de·scend·ing

/ˌkændəˈsendɪŋ/ 

adjective

having or showing a feeling of patronizing superiority.

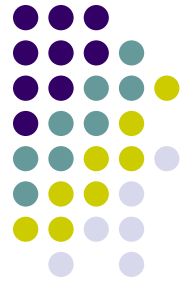


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if (k != 0) p->key = measure / k;  
Short-circuit evaluation
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[em-puh-thet-ik] /ˌɛm pəˈθɛt ɪk/ adjective. of, relating to, or characterized by **empathy**, the psychological identification with the feelings, thoughts, or attitudes of others: a sensitive, **empathetic** school counselor.

[Empathic | Define Empathic at Dictionary.com](#)

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