ROLE PLAYING IN THE CLASSROOM:
Preparations for the Young Professionals

LUKE M. SNELL
Senior Materials Engineer
Western Technologies
Phoenix, AZ
The Majority of Communications for Engineers and Contractors is the Technical Memo and/or Letter
Most Students
Complete
Their Degree
Without
Writing
Technical Memos or Letters
Physics, Chemistry Labs and English Classes Write Reports and Papers

• *Encourage students to be Verbose*

• *Explain Away Problems*
First Year as Consultant

Wrote

Technical Report

for

Non-Technical Clients
Had to Learn to:

1. Be Accurate
2. Avoid Technical Jargon
3. Be Concise
4. Solve the Problem
Engineering Challenges

- EXCITING -

What I Studied!!
Writing Reports

EXCRUCIATING

What I Didn’t Study!
How to Write EFFECTIVE Memos

By Writing Memos with Feedback
Students are:

Company Representatives
Project Managers
Field Engineers
Professors are:

Employers
Supervisors
Clients
Irate Customers
COMMON PROBLEMS WITH REPORTS
1. Tendency to include Inappropriate Materials:
   - *Client Does Not Want:*
     - Raw Data
     - Calculations
     - Irrelevant Observations
Client

Wants

Results
2. Write to Impress Professors

- Uncomfortable in Making it Simple
- Perceive:
  - Length = High Grade
  - More Information shows a Better Prepared Student
Write to Inform Client
3. Omitting Conclusions or Recommendations

- Want to Avoid Being Wrong
- Give Several Solutions - Let Others Decide
NEED

A

CONCLUSION
4. Write Obscurely - Rational/Decision Cannot Be Followed or Verified

- Attempt to Hide Inadequate Research/Understanding With Obscure Writing
NEED TO WRITE CLEARLY, SO LOGIC CAN BE FOLLOWED
5. Poor Style and Poor English

- *Spelling*
- *Grammar*
- *Words with Inexact Meaning*
- *Using Wrong Technical Words*
Need to Proofread and Use Spell Check and Grammar Checks
6. Sloppy Memos and/or Letters

- Unstapled
- Torn
- Poorly Designed Graphics
- Hand Written
Need to Recognize that YOU ARE Becoming a PROFESSIONAL
Only Way to Learn to Write is to Write
Professor’s Responsibility

1. Give exact guidance where the student went off track

2. Do not accept poorly written memos - Make them redo (as in industry) until it is right

3. Make the memos a % of the grade so they can not be ignored

4. Be patient!!!
First Memos and Letters are Poor

90% Must Redo
First Memos and Letters are Poor

90% Must Redo
Must Give Appropriate Feedback so the Students can Improve
At end of the Semester

90% of the Memos and Letters are done CORRECTLY the first time