How to Make Things Better in Big Companies

(when you don't have authority)

James Bach (with help from Jon Bach)

james@satisfice.com

Name of Student...................... Bach, Jame[s]

STUDENT ACADEMIC PERMANEN[T ...]

1980-81	Gr. 9	FM		CR	R
English		78		1	
Social Studies		84			
Physical Science		94			
Math 10					
Math 11					
French		70			
Physical Education		85			

1981-82	Grade 10	FM	CR	R
English		63		
Social Studies		83	1	
Calculus II		83	1	
Physics		49		
Math 10		91	1	88
Math 11		81	1	72
Physical Ed.		87	¼	

Witness in Microsoft Case Is Dropped After Strenuous Protests by the Defense

Just after the lunch break Thursday, Steven Holley, an attorney for Microsoft, fired a verbal salvo at the states. He said that the states' lawyers had delivered 67 CD-ROMs or roughly the equivalent of 36,000 400-page books, in response to requests for information about Mr. Bach.

"In order to take a deposition of Mr. Bach, we have to replicate his work," said Mr. Holley. He said the states' legal team also had delivered an actual computer with multiple versions of Embedded. "We're not talking a matter of hours, or even a couple of days" to prepare to question Mr. Bach, said Mr. Holley.

[ex]pert?

- I'm a high school dropout.
- I've been in tech for 37 years– 33 as a tester.
- I wrote a book on testing.
- I wrote a book on self-education.
- I've been an expert on 10 court cases.

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12              MR. ERNEST:  Your Honor, Padcom would ask to

13    have Mr. Bach recognized as an expert in computer

14    software and software testing, including networking, as

15    well as computer programming.

16              THE COURT:  All right.  Any objection to that?

17              MR. SHELTON:  No objection, your Honor.

18              THE COURT:  All right.  We're going to take

19    our luncheon break.
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Who you are
&
Whom you serve

Example 1: I was the youngest manager in the Apple R&D division, in 1987

- I was 20 on the day I was hired.
- I had never done management.
- I had never worked in an office building before.
- I had never worked on a project with more than three people on it.
- I had never worked with women or anyone with a different ethnicity or national origin than my own.
- Apple Computer "required" a CS degree for that position.

Why? How?? So what???

# Why and How: I was a "fit" for that particular recruiter and manager.

- **Ostensible reason:** I had unusual and relevant knowledge of Apple II Assembly language programming, yet was willing to work in a testing group.

- Both the recruiter and hiring manager were "counter-culture" sorts of people. Let's call them extremely liberal (okay… they were hippies).

- The hiring manager (who later went on to become a psychotherapist) wanted someone he could train to his own standards.

- A hiring manager at Apple, at that time, had complete freedom to hire whomever he or she felt was qualified.

- I was inexpensive and undemanding, yet extremely energetic and self-confident.

So What? This what: There may not be a place for you everywhere, but there is a place *somewhere*.

- Being effective in any job requires more than being good. You must also be *accepted*. It is a social matter.

- There are many things you can do to earn acceptance. But you have to learn (and choose) the things that you are *willing and able to do,* and the things you are not.

- I learned in my career as a manager that there are many **dumb reasons** people are not given jobs. **I learned to never take it personally.** It's like dating. If the chemistry isn't there, fail fast and move on.

"But there are more jobs for interchangeable workers than there are for special snowflakes!"

Snowflake People
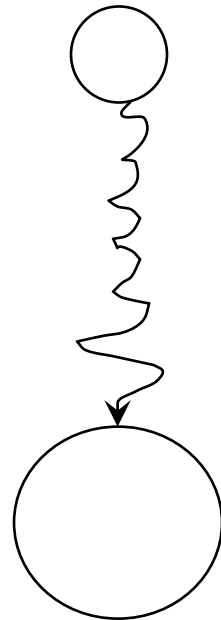
Jobs for Snowflake People

Interchangeable workers

Jobs for interchangeable workers
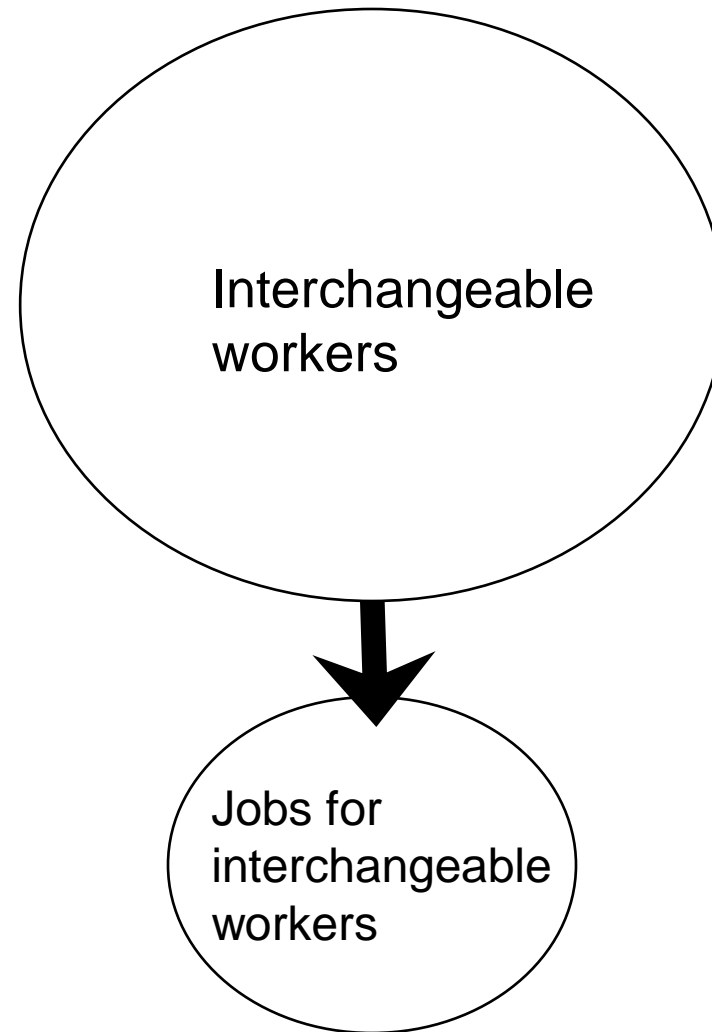
Example 2: Tamra Stops the Release

- I was one of several test managers on a large project called Borland C++, in 1993.

- I didn't believe the product was ready, but I felt I wouldn't be listened to, so I didn't try very hard to stop it.

- A fellow test manager, a five-foot tall mother of three named Tamra Selfridge, made a passionate and tearful speech-- which got all twelve decision-makers, including me, to delay the project.

Why? How?? So what???

Why and How: Tamra had built a strong reputation for pragmatism and calmness.

- Unlike me, Tamra usually did **not** make fiery speeches.
- Unlike me, Tamra had been on that project for seven years.
- Be truthful. Be steady. Be helpful.
- (and be patient about people noticing that...)

So what? This what: Reputation matters.

Persuasion process: Center. Enter. Turn.

you

YOU

How do you get things done that go beyond your own job, when you have no official power?

1. **Pick a problem you care about:** It's hard to sustain energy trying solving things that don't matter to you.

2. **Clarify your motives:** Are you merely serving yourself, or do you have other people's interests also at heart?

3. **Psyche yourself up:** "My company wants me to act; it wants me to solve problems now! There is no other good reason to have hired someone like me!"

4. **Adopt a service mentality:** find out who has authority and responsibility; volunteer to be their agent to solve that problem. Consider finding a solution before even telling them you are working on it.

Example 3: I tried to get the tech support organization involved in testing our product.

- My manager said no.
- **So I dropped the idea.**

Example 4: a tester in my team tried to use a program to automatically generate tests.

- I, the manager, said no.
- **So she implemented the idea anyway and showed me the results.**

Lesson: "Constructive Insubordination"

- I found myself grateful to that tester (who happened to be 20 years older) and decided I liked it when people who work for me **listen** to me and **care** about me without necessarily **obeying me**.

- It made me feel strangely powerful, as if I had extra brains that were thinking for me.

- I decided: obedience is not what I sell, either. What I sell is good service to solve problems. My management gets to say what those problems are, but I can't let them micro-manage the way I solve them.

- I now teach this to anyone I am leading: **never let me push you to act against your conscience or judgment**; **but be prepared to explain and defend whatever you do.**

Your Skills

Key Skills to Develop

- **Identifying the people who matter** (opinion leaders as well as formal leaders)
- **Analyzing how things work** and appreciating why they work that way.
- **Writing a proposal in telescoping form** (one sentence ➡ one paragraph ➡ one page ➡ one document)
- **Calling and running a meeting** (have an agenda; talk to key people before the meeting so there are no surprises)
- **Listening to and caring about people** without necessarily obeying them. (Apple sent me to listening skills and influencing skills classes. So helpful!)
- **Running a small-scale experiment** that you call an "experiment."

Example 5: Session-Based Test Management at HP

ET-ALY-000713-A.ses

Charter

Compare the Andrew's Suite output on Grizzly using smokey drivers and investigate defects

Start

7/13/00 10:00 am

Tester

| Name	Duration	T%	B%	S%	CVO
Andrew Yoder	long	95	0	5	100/0

Coverage

#PDL-PCL
#PDL-PS
#OS-Win95

- Working for HP, my brother and I developed SBTM because we refused to count test cases.

- It was eventually embraced by that testing group and became supported by various test management tools.

Example 6: Metrics Program at Borland

Predator Critical Bugs
Pre-Gamma

Legend: F, I, Q | I, Q | Q | Uncounciled
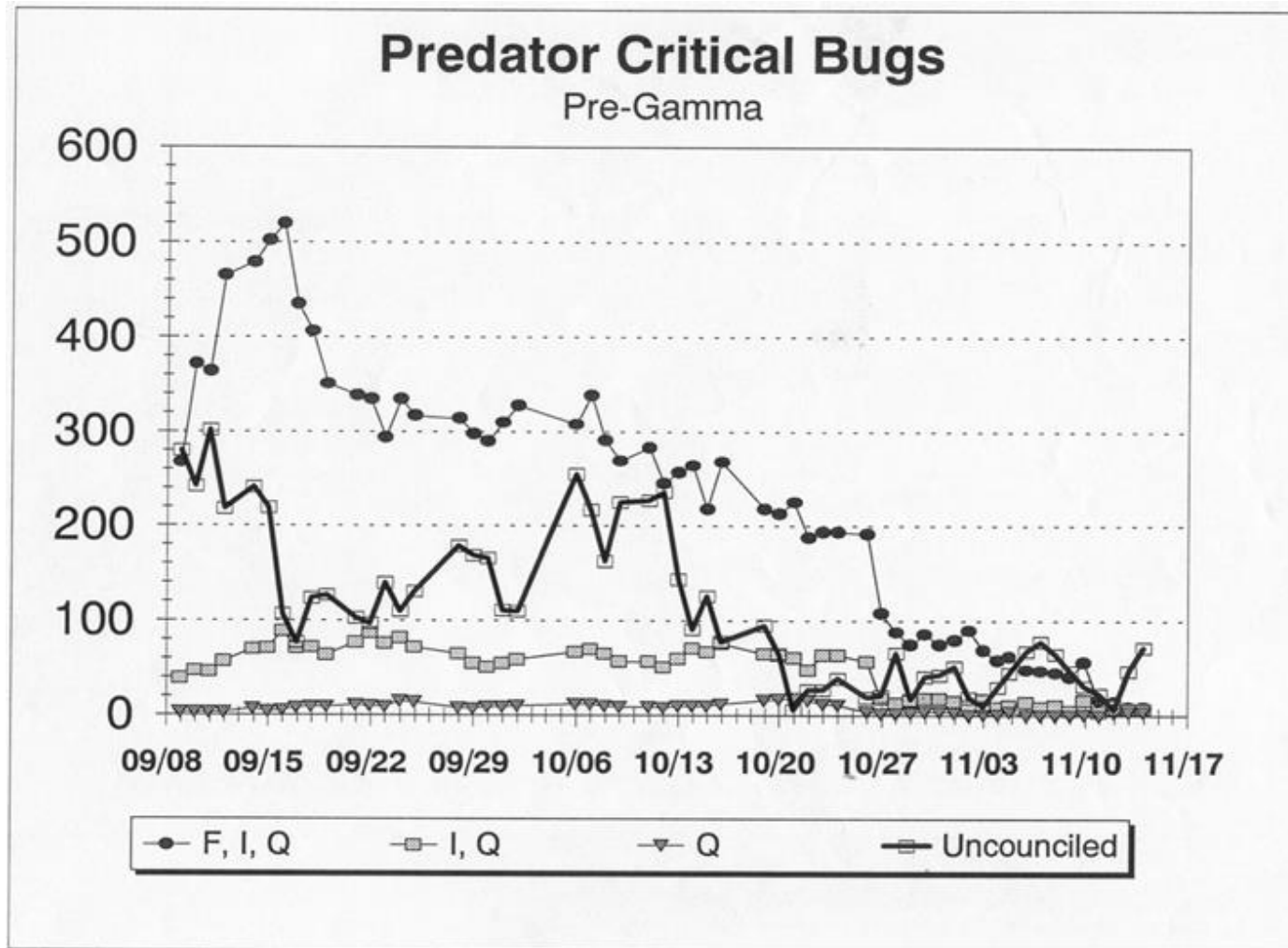
- After being denied time and funding to establish a metrics program in the Borland C++ group, I stole a computer and did it anyway.

- It became popular with project management, and **then I got the support I needed.**

Example 7: Software Testing Recommendations

Summary of Recommendations

1. **Re-focus management of testing from an artifact-based approach to a people and activity-based approach.** While test code and test documentation are important things, they do not themselves represent the substance of testing. The substance of testing is people and how those people spend their time. If you want to evaluate testing, look at the kinds of things testers are doing (and not doing) and how much time that takes. [Success factors addressed: *Focus, Complexity*]

2. **Establish a unified ▬▬▬ test report based on data and interpretations that are meaningful to the business.** Test status should not be reported based on test case counts. Test cases do not map to testing value any more than files or keystrokes map to development value. What's meaningful to the business is: risk, test coverage, time spent testing, and obstacles to the testing process. [Success factors addressed: *Focus, Infrastructure, Complexity*]

3. **Update Advisory QA Analyst role to include the coordination of a unified test report; and update other QA roles to support this.** QA roles from each team should provide status information to a unified status report and issues list that give managers the information they need to make decisions. The Advisory QA Analyst will be part of that effort and to ensure that the report is complete and understandable. [Success factors addressed: *Focus*]

4. **Establish Toolsmith role which supports the team.** Dedicate people who can write code, create, maintain and deploy tools (automation frameworks for example) in support of testers and devs, instead of requiring each team member to be his or her own toolsmith. These people must be embedded in the Agile teams to work with and continuously collaborate with the team. [Success factors addressed: *Bandwidth, Skills, Infrastructure, Complexity*]

5. **Enable testing professionalism with training and coaching.** This requires a dedicated training

- A client asked me to make recommendations for establishing a professional testing culture.

- I made eight suggestions.

- They were signed off by the senior management.

- **NOTHING HAPPENED.**

Lesson: Even with "management support" you may not win.