



**STUDENTS
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Raising Marks. Raising Money. Raising Roofs.

BU121 Final Exam-AID

Michael Blair & Ishandeep Babbar

Please wait to enter
your codes! Thank you!

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 **ERNST & YOUNG**
Quality In Everything We Do

TEXTBOOKS FOR Change



Certified
 Corporation

Our Model



We repurpose donated textbooks from university campuses and community partners in North America. Our goal is to provide **affordable** and **accessible** educational material to students around the world.



Textbooks are donated on campuses and in the community.



We donate 50% of textbooks to campus libraries in East Africa.



We resell 20% of textbooks at affordable prices to students.



We recycle 30% of textbooks that are old or damaged.



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Our Process



1. Collect



3. Match



4. Ship



2. Sort



5. Access



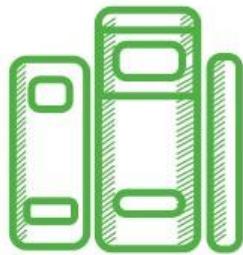
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The Impact



135,000

Textbooks
donated



140,000

Books sold
& recycled



\$215,000

in donations
& microloans



3,000+

Trees Saved



Affordable & Accessible



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Let's Talk Affordable



20%

We resell 20% of
textbooks at
affordable prices to
students.



\$55.00

Average price of new
textbooks purchased by
EA librarians



\$0.37

Average cost of
processing a textbook
from T4C

For \$1000

**Purchase
18**

Textbooks from
traditional suppliers

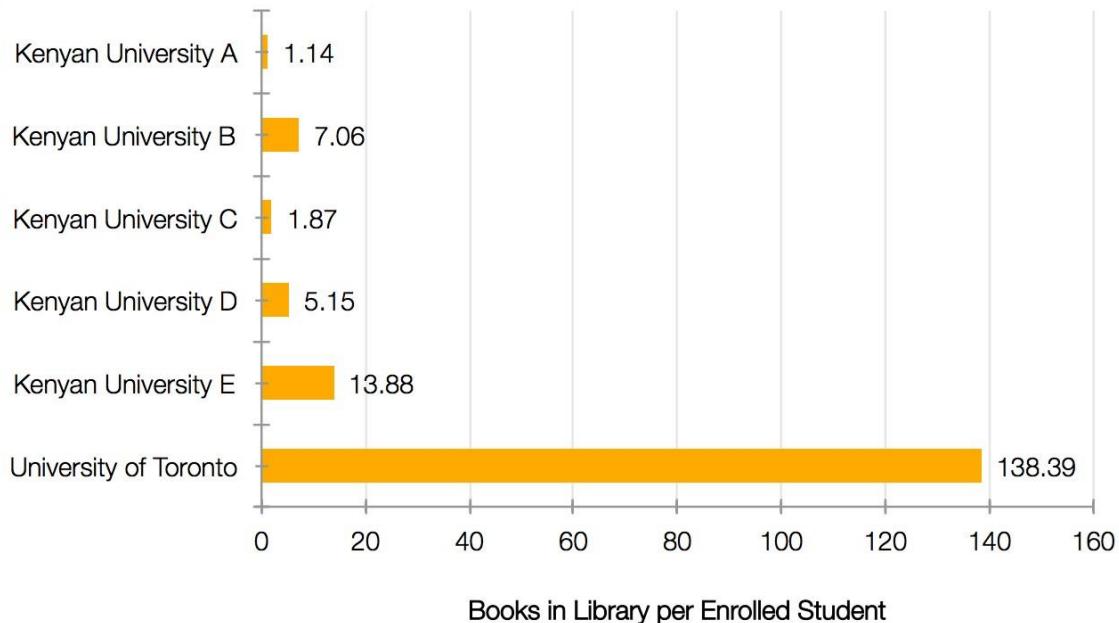
**Process
2703**

Textbooks from
T4C



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Let's Talk Accessible

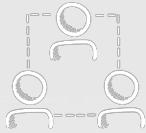


*Interview with Moi
University Librarian*

Have you, this academic year, turned away students who needed access to textbooks?

“Very often. Of **10** students, about **4** might get their request.”

Your Drive



We Accept

Post-Secondary
Textbooks published in
the **last 10 years**

We Provide

Giveback of approx.
\$1.25 per textbook
towards any initiative of
your choice

A breakdown of your
collections and impact

1. Promote



2. Collect



3. Create Impact



"Working with Textbooks for Change was a great experience; the campaign allowed us to raise more money for Shinerama this year than we ever thought possible. In only a few short weeks, we were able to raise \$16,000 through the textbook drive."

Jonathan Barbaro
Western University
Shinerama Campaign



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WE have a DREAM



A world where education is
a **human right**, not a
privilege



OUR GOAL

Donate 1,000,000
textbooks to
campus partners
in EA by 2020.

TEXTBOOKS FOR Change



www.textbooksforchange.com

BRISAS DE SAN LUIS, NICARAGUA

Trip Departure Date: August 16, 2017

Project: Elementary School Construction

Accommodations:

- cement structure
- running water
- flush toilets
- electricity.
- 30 minute drive away from the worksite with secure transport provided

Cost: \$1150 (+ flight)



LEADERS WANTED

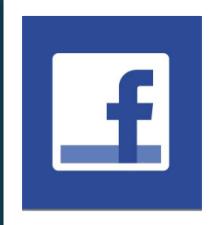
Want great leadership experience?
Improve your communication skills?
Build your network of peers and
career professionals?

We are hiring superstar tutors and
executives to be part of our team!

Visit us online and apply today.



STAY IN THE LOOP:



[Facebook.com/LaurierSOS](https://www.facebook.com/LaurierSOS)



[Twitter.com/LaurierSOS](https://twitter.com/LaurierSOS)





OUTREACH TRIPS:

Want to experience two weeks in Latin America building the education project **THIS** session is funding? Become part of the community, see the impact you can have, and truly experience a new culture.



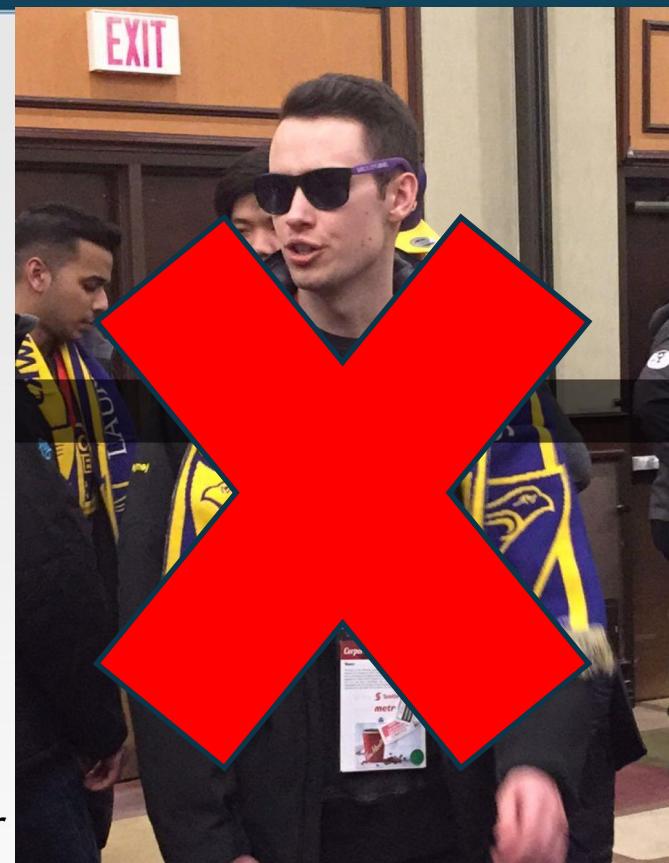
Blair!

- 5th year BBA/BMath, co-op, specializing in finance
- 7 time BU111/121 TA, past JDCC Captain, returning BU111/121 SOS Tutor
- Quote to live by:
“Buzz Word. Implementation. Buzz Word. Synergies”



Ish!

- 5th Year Business and Financial Math Double Degree Coop
- BU111/121 TA, JDCC Team Member, Math IA: MA101, MA103, MA170, MA205 -> Co-op terms at Sentry Investments, Whirlpool Corp., Investor Economics -> Full time: Accenture
- Accomplishments:
-None
- Quote to Live by:
“There is a limited amount of time between now and Saturday’s exam and it will pass no matter what you do. Your rest is coming whether you study hard or hide under a blanket. What you control is how you feel when your rest comes. You control whether or not you earned it. Right now you have the opportunity to earn it but on Saturday and every day after, that opportunity will be gone. You’ve got a few days left... don’t count them down, make them count” -Demi Oba



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Slides & Feedback

After the session, use your unique code to access all these slides.

Please take the 20 seconds to leave us some comments! It helps us put on even better sessions.



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Disclaimer!

We have **not** seen the exam. We only know what you know.

We may discuss whether we think concepts **might be well-suited** to a short answers or multiple choice questions, but we **do not know** exactly how they will be tested.

Always defer to comments from your prof or lecture notes if things are unclear!



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Agenda

1. DISC: Ish
2. Negotiations: Ish
3. Finance: Michael

---*BREAK*---

4. Labour Relations: Michael
5. Human Resources: Michael
6. Operations and Sustainability: Ish



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**DISC/EQi
Ish**

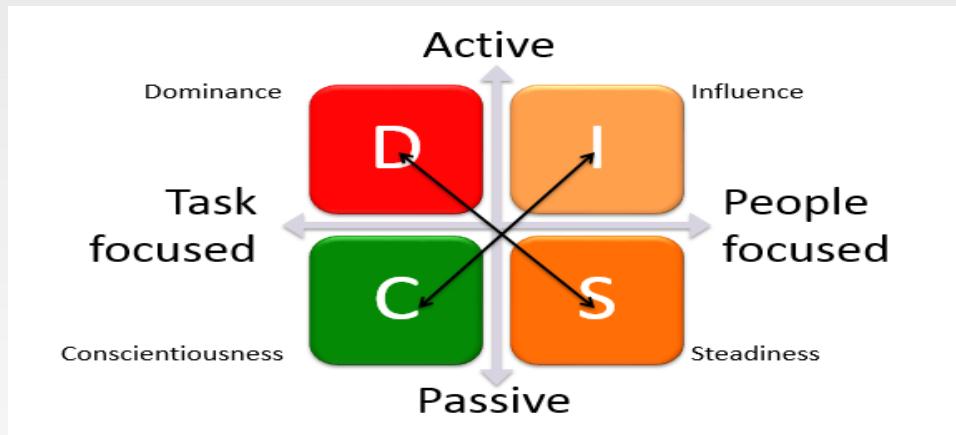
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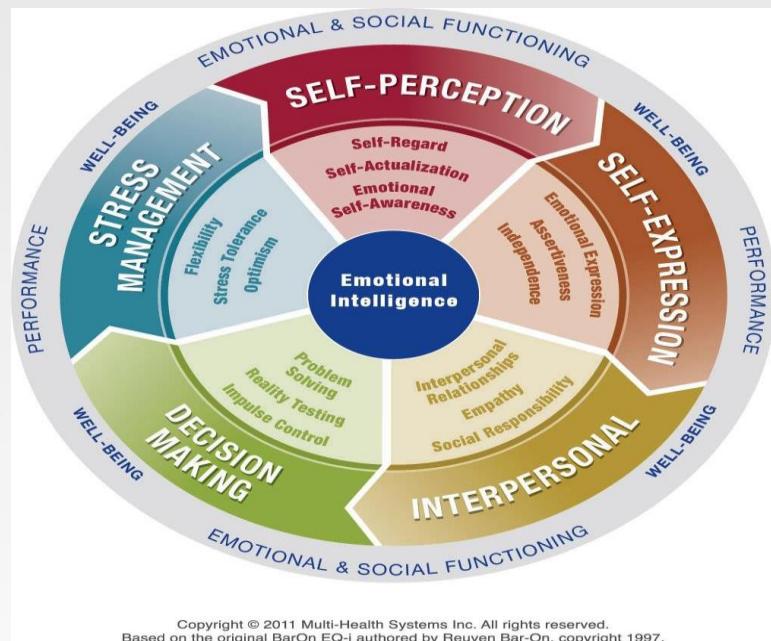
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DISC and EQi

Our old friends!



Let's start with emotional intelligence.



What is EI?

“Emotional intelligence is a set of emotional and social skills that influence the way we perceive and express ourselves, develop and maintain social relationships, cope with challenges, and use emotional information in an effective and meaningful way.”

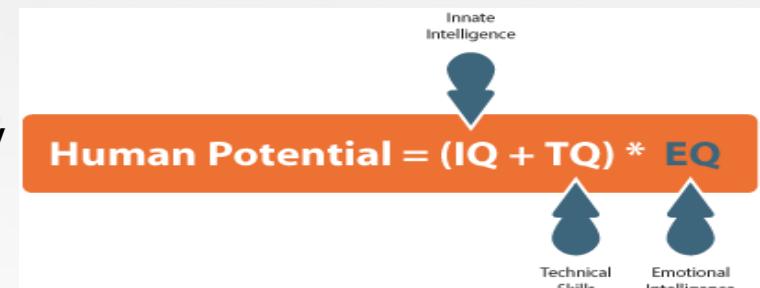
It involves 3 major elements - **perceiving, understanding and regulating emotions.**



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Differences and Overlap

- EI vs. IQ vs. Personality:
- EI can always be improved upon → non-static/dynamic trait **EI can change: be improved and developed**
- IQ and personality plateau; develop then stay constant
- EI multiplies the effect of high IQ and/or technical skills
- Overlap: all can be used to benefit a company
 - Recruitment
 - Assessing job performance



EI and Employment

- 71% of US employers value EI over IQ
- Because strong EI means that person can:
 - Deal well with pressure
 - Resolve conflicts effectively
- Examples of employers valuing EI
 - OPP
 - CIBC and American Express of sales reps positions
 - US Air force



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Impact on Bottom Line

Companies use EI to recruit

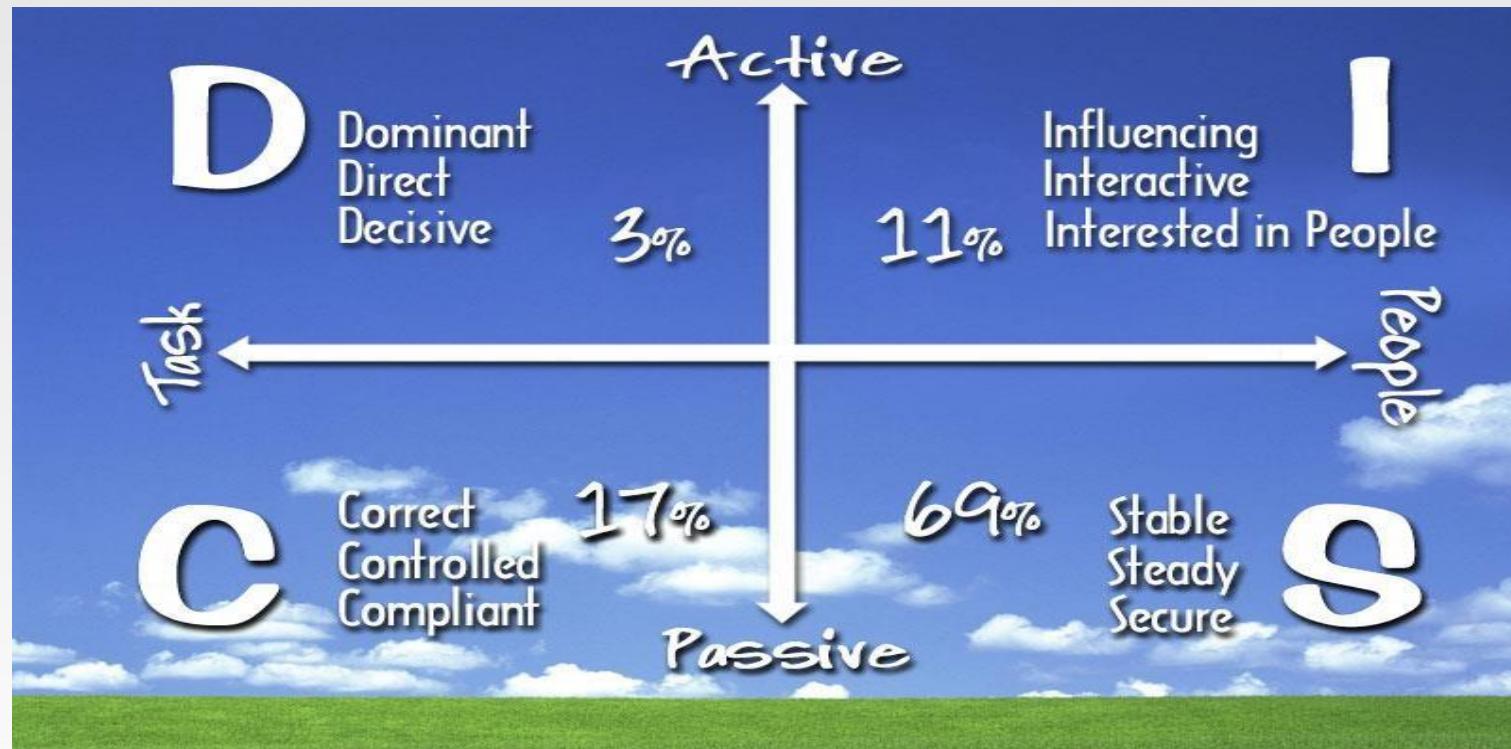
hire ppl with good EI they can be trained more effective
more productive—focus more on their jobs rather than conflicts

- Reduced training costs
- Higher levels of productivity
- Reduced turnover rates
- More successful hiring (less failures)
- Greater individual performance
- Better leaders and managers
- Stronger relationships with employees and customers



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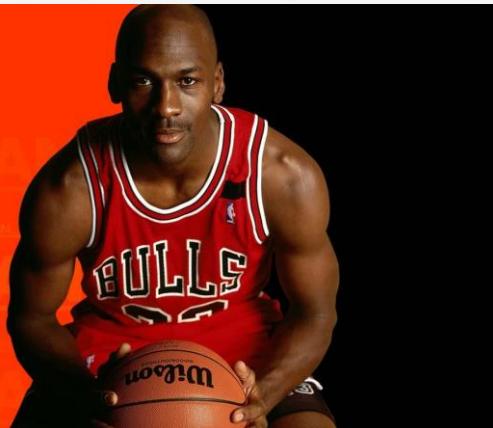
DISC



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DISC Styles

D



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DISC Styles

D

Emphasis on shaping the environment by overcoming opposition to accomplish results.

- **High D style**

- Characteristics
 - Active, positive movement in an antagonistic environment
 - High ego strength, desire change, do many things at once
- **Fear → Being taken advantage of**
- **Antagonized response → Aggressive**
- **Emotion Measured → Anger**
- Enhanced Communications
 - Brief and to the point
 - Ask what, not how questions
 - Focus on results, agree with facts; not people



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DISC Styles



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DISC Styles

- High I Style
 - **Characteristics**
 - Active, positive movement in a friendly environment
 - Emotional, people oriented, disorganized, optimistic and encouraging
 - **Fear → Rejection**
 - **Antagonized Response → Negotiate**
 - **Emotion Measured → Optimism**
 - **Enhanced Communications**
 - Let them talk about ideas
 - Allow for social time
 - Build a comfortable environment

Emphasis on shaping
the environment by
influencing or
persuading others



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DISC Styles

S



I can't go out, *cough*,
I'm sick.

DISC Styles

S

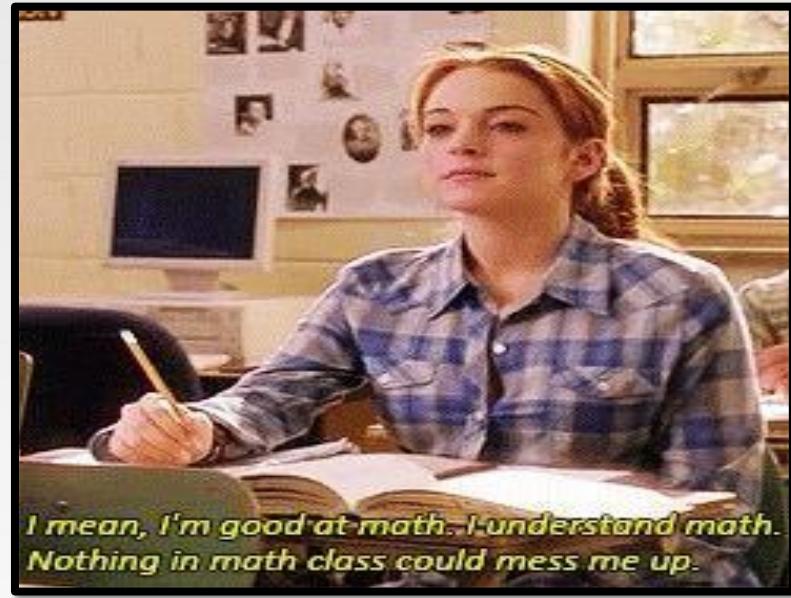
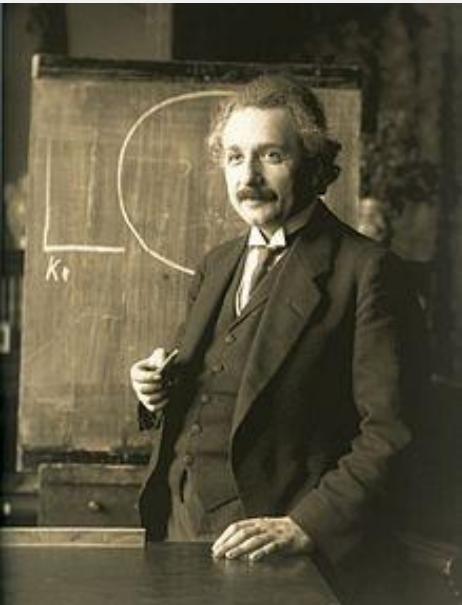
- High S style
 - Characteristics
 - Passive aggressive in a favorable environment
 - Loyal, gentle team player
 - Trusting, possessive and resists change
 - Fear → Loss of security
 - Antagonized Response → Passive
 - Emotion Measured: Emotional expression
 - Enhanced Communications
 - Show genuine interest in them
 - Define goals and their role in the plan
 - Give time to adjust



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DISC Styles

C



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DISC Styles

• High C

- **Characteristics**
 - Cautious, tentative response designed to reduce antagonistic factors in an unfavourable environment
 - Perfectionist, sensitive, accurate, ask many questions and requires details
- **Fear: Criticism**
- **Antagonized Response: Passive**
- **Emotion Measured: Fear**
- **Enhanced communications**
 - Prepare in advance, assure them there will be no surprises
 - Be specific and use precise explanations

C



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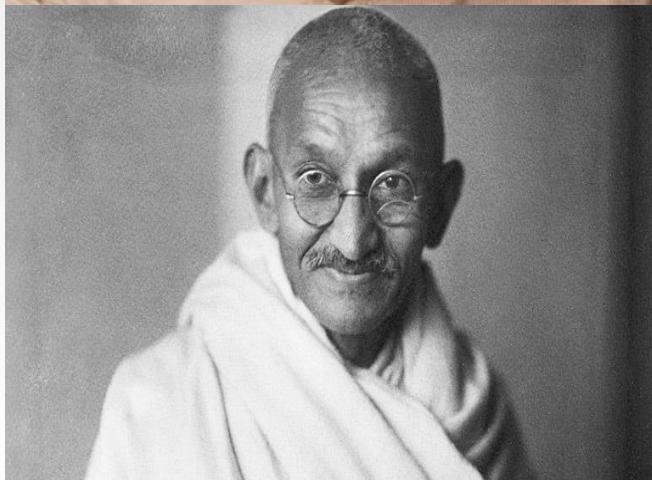
Multiple choice type questions?

1. Which personality style fears rejection?
2. Which personality style is an active, task focused type?
3. Which personality trait is opposite someone who is dominant and demanding?



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Test:



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Negotiations

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Study guide says...

- Lab Manual Reading *Negotiating with Emotion*
- Lecture Material
 - EASY process
 - Negotiation strategy matrix - 2 categories of collaborators
 - Basic interaction styles and how they relate to negotiation tendencies
 - 5 basic negotiating strategies - when to use each, including compromise
 - Principled / integrative bargaining vs positional / distributive bargaining - advantages of principled negotiations and 4 basic points



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Negotiation

Definition: “The (often) ongoing process through which two or more parties, whose positions are not necessarily consistent, work in an effort to reach an agreement.”



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EASY Process

Engage: Recognize you are in a negotiation and quickly review the viable strategies.



Assess: Evaluate your tendency to use each of the negotiation strategies, as well as the tendencies of the other side.



Strategize: Select the proper strategy for this particular negotiation.



Your One Minute Drill: Each time you begin a negotiation situation, take a minute to review the 3 steps.



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Negotiation Strategy Matrix



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When to Use Strategies

- Avoidance
 - Minimal issue: need to demonstrate investment in relationship
- Accommodation
 - In significantly weaker position - “This time around” - avoid negative precedent



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When to Use Strategies

- Competitive
 - Opponent not inclined or capable to collaborate
 - Not worth the effort - be careful here
- Collaboration
 - Significant opportunity with capable decision makers



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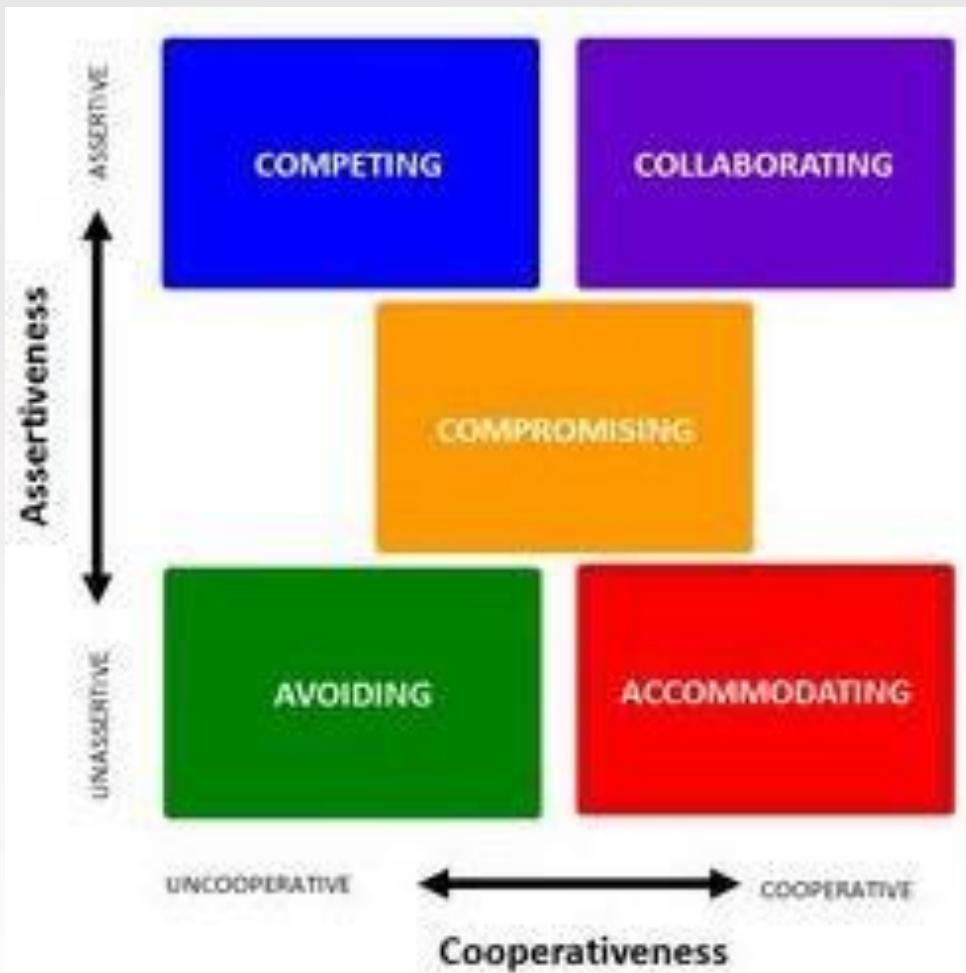
2 Categories of Collaborators

- Dreamers: Want to be collaborators
 - Actually are accommodators since they are trying to be a collaborator and not sticking to what they truly are
 - Want to collaborate ALL the time
- Sages: Real collaborators
 - They know when collaboration is appropriate strategy
 - They are rare
- Check strength of accommodation vs. competition
 - Tendency to compete = sage
 - Tendency to accommodate = dreamer



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Thomas-Kilmann Conflict Mode Instrument



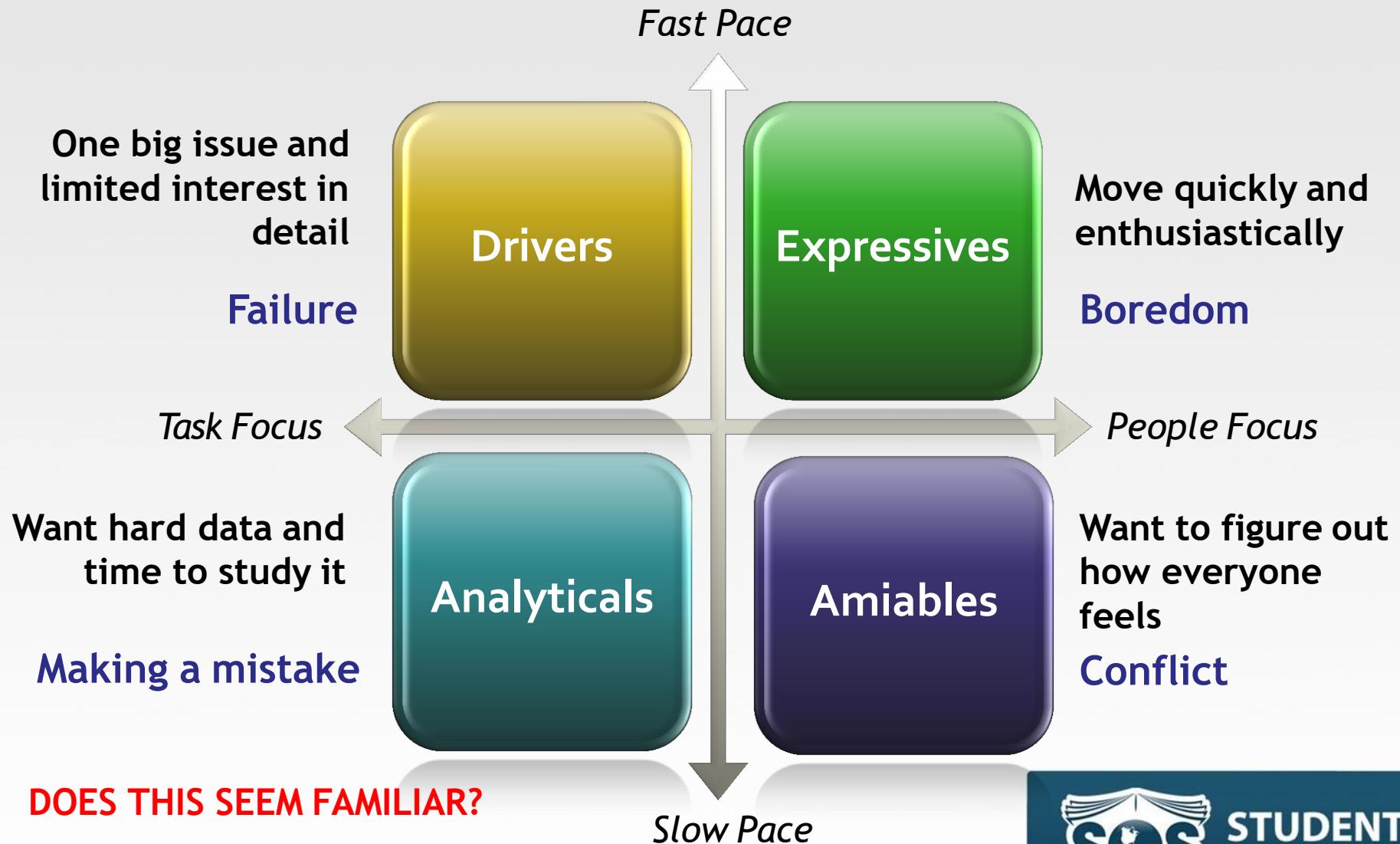
- **Compromise**

- Late in the negotiation process after legitimate strategies fully used
- When only a small gap remains on one issue
- Always directly tied to an agreement



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Interaction Styles



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Interaction Styles

- Drivers (D)
 - Unemotional, task focused, fast-paced, transparent, intimidate during negotiation, competitive, biggest issue is failure, but comfortable making a mistake
- Expressives (I)
 - Emotional, like to form relationships, like to entertain, don't want boredom so dislike detail. They are dreamers, no follow through
- Amiables (S)
 - Slow paced, friendly, hate conflict, want everyone to be happy so they don't proceed until they know someone is happy. Hardest to negotiate with, don't share feelings in fear of conflict.
- Analyticals (C)
 - Detail oriented, don't want to make mistakes, seem like avoidance



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Positional/Distributive



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Positional/Distributive

- Positional Bargaining: take a position, argue for it, make concessions to reach a compromise, give and take
 - Soft: avoid conflict (accommodate) vs. Hard: competing
- Distributive Bargaining: to distribute scarce resources - competing, compromising, accommodating
 - Success: obtaining a result that is at or near resistance point

Principled/Integrative



Principled/Integrative

- Integrative Bargaining: collaborating to reach an outcome that meets interests of both parties
 - This is principled negotiation



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Advantages of Principled

- Advantages:
 - Produces a wise agreement: if positional it is difficult to change it
 - Efficiently: if positional only give small concessions, takes a long time
 - Amicably: if positional you get angry and concerns not expressed
- 4 Basic Points:
 1. Separate people from the problem - idea is to work together
 2. Focus on interests not positions - look at real needs and desires
 3. Generate a variety of options - broaden the possibilities
 4. Insist the result be based on objective criteria - independent of the wills of either side



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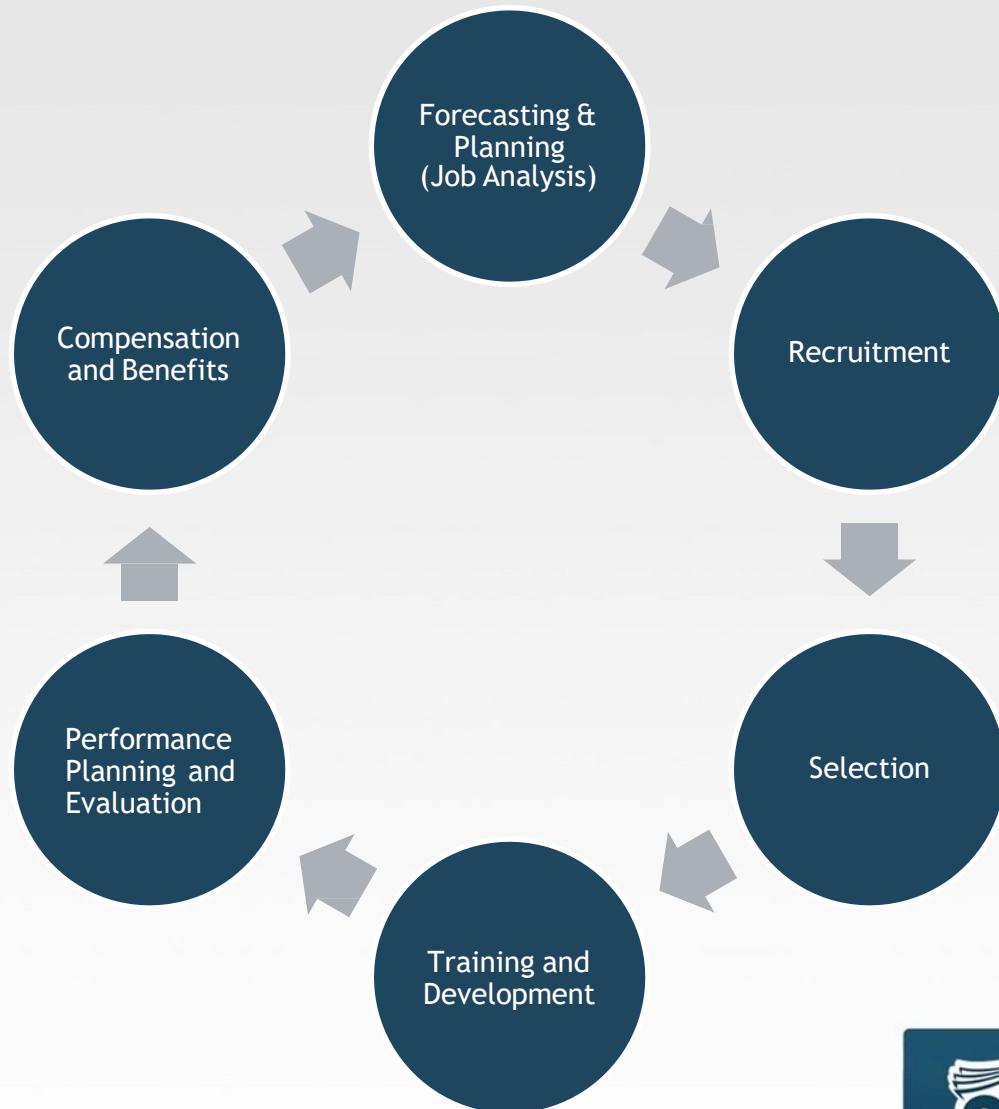
Human Resources Michael

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HR Management Process



HR Management Process



Attraction, retention, and motivation

Attraction

- Why important: need qualified employees to compete
- How: employer branding, advertising, referrals, recruitment strategies

Retention

- Why important: costly to recruit new employees, no guarantee they will be good
- How: engagement, compensation, training etc.

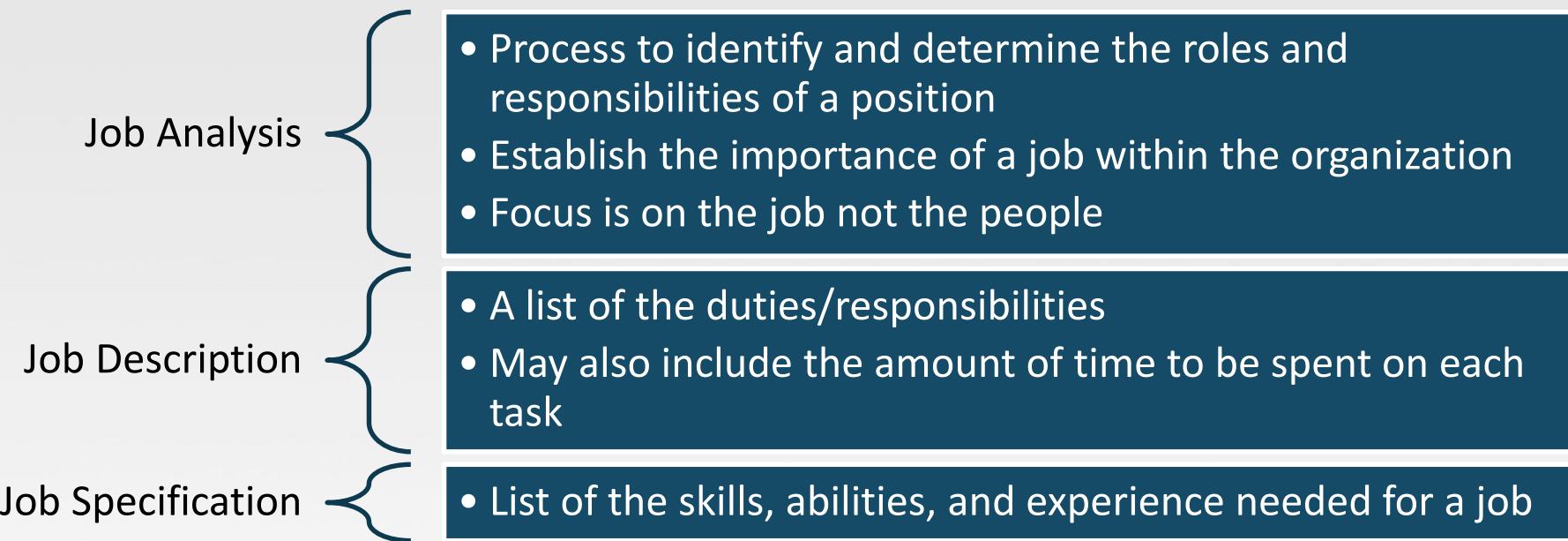
Motivation

- Why important: engaged employees are more productive
- How: culture, compensation, benefits, etc.



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Job Analysis and Design



Job analysis is critical because it tells you what jobs need to be done in the firm, the actual duties and qualifications of the job, and how important that job is.

This lets HR make better hiring decisions, as well as make decisions about compensation and benefits that promote equity within the firm



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Recruitment

What is Recruitment?

“The action of finding new people to join an organization or support a cause”

The process through which a pool of applicants is generated.

This pool must be sufficient in quality and quantity



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Recruitment - Realistic Approach

Realistic Approach

- Gotta be open and honest about what the job entails.
- Let them accept the bad aspects with the good
- Don't oversell the job so that you get people who actually want the job.
- Like the employment option of a first date

Example

- If there are no opportunities for advancement and you don't make that clear you'll lose employees and waste valuable time and resources.

Example

- Imagine this job description:
“There’s not really a lot to this job, you get to draw, pictures and hang out with your friends, you’ll spend some time on YouTube and talk about gelato”
- If I told you that was a *technically* truthful description of the “job” of a BU121 student you’d come after me and my family

Recruitment - Employer Branding

The **image or impression** of an organization as an **employer** based on the **benefits of being employed** by the organization.



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Recruitment - Employer Branding



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Recruitment - Employer Branding

Market your
Value to your
Target

Define Target
Market

Develop Your
Value Prop



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Recruitment and Social Media

- Our goal is to attract and hire quality employees
 - Ultimately, this comes down to the employees that are *retained*
 - Poor employees would be fired or leave the business creating more costs in the long run
 - One major source of quality hires is Social professional networks

Top sources of quality hires

Social professional networks

43%

Internet job boards

42%

Employee referral programs

32%

- Social media also gives a more direct way to target and interact with our target market
 - Similar to marketing, digital platforms allow us to target the exact people we want to recruit
 - Allows for more real-time interaction, and this interaction isn't filtered as much as other channels
 - Unparalleled reach when looking for new employees



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Selection

Okay, so you've figured our your employment value proposition, you've locked in a target market and your Employer Brand is on fleek.

People are flooding through your doors and your interview rooms are more live than DJ Khaled's Snap Stories

You've generated this pool of applicants but now who do you pick?



Selection

Selection: Determining which person(s) in the applicant pool possesses the qualifications needed to be successful in the job.



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Selection: Validity

Criterion Validity

- The extent to which those who do well on a selection method (predictor) do well on the job (criterion)
- NFL Combine is a great example of this

Validation Process

- Administer selection process to a group of people.
- Track their results on the job and correlate with selection results
- Use the valid predictors and cut the non
- The more valid the predictor the better



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Selection: Validity



Selection: Validity



Selection: Validity



Selection Validity

- It's fun to watch, but how valid is Allstar Weekend



What can you ask?

You can only ask things that are related to the job otherwise it is discrimination.

For example, in class last year I learned it is illegal to ask “How many languages do you speak” in an interview. A better question would be “Do you speak French and Spanish” (if the job required such skills)



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Interviews

Problems:

- Don't predict performance very well
- Natural Biases
- Comparison to other interviews
- Personality is overpowering
- Resume creates preconceived notions
- Variance and validity of questions

Solutions:

- Train Interviewers to give proper interviews
- Have more than one interviewer
- Use job analysis to create patterned questions
- Give feedback



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Interview Questions

| Type | Situational | Behavioural (BDI) |
|-----------------------------------|---|---|
| Question Type | Hypothetical Based on incidents which could happen on the job | Historical Asking about past experience |
| General Question Form and example | “What if...” “Imagine that...” “What would you do for a Klondike bar” “How would you go about planning an event for your first years” | “What did you do when...” “Think of a time where...” “Think of a time where you’ve really failed. What happened?” |
| Key Assumption | Intentions will reflect actual behavior | Past is the best predictor of the future |

HR Legislation

6 important pieces/categories of legislation:

- Charter of Rights and Freedoms (1982)
- Human rights legislation (varies by province)
- Canadian Human Rights Act (1977)
- Employment Equity Act (1996)
- Occupational Health and Safety Act (varies by province)
- WHMIS

For most of these laws, the primary goal is to prohibit discrimination and encourage diversity

- EEA specifically prohibits employment barriers and inequality for: women, visible minorities, Aboriginal people, and persons with disabilities

Enforcement is typically through the Ontario Human Rights Commission (or other provincial body) or the Canadian Human Rights Commission depending on the violation

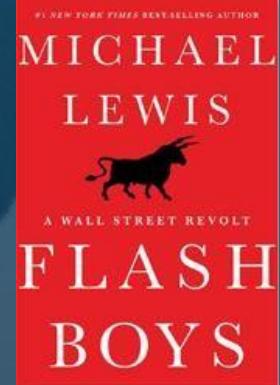
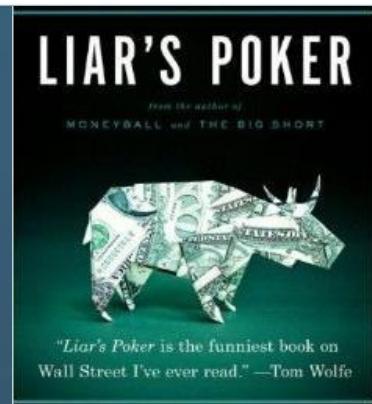


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Cash Budgets!

- Two tools: The **Worksheet** and the actual **Cash Budget**
- Worksheet makes the calculations for **Receipts and Purchases** more clear and structured
- Understand which information applies to the **Worksheet** and which is just for the **Budget!**

Approach to Cash Budget

1. Know the structure of both tools
2. Read line-by-line: is this for the **Budget** or **Worksheet**?
3. Get ready for interest tricks
4. Distractors? **No thanks!**



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The Structure: Worksheet (just an example!!)

| | | Feb | Mar | Apr | May | Jun | Jul |
|-------|--|-----|-----|-----|-----|-----|-----|
| Sales | | ... | ... | ... | ... | ... | ... |



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The Structure: Worksheet (just an example!!)

| | | Feb | Mar | Apr | May | Jun | Jul |
|----------------|--------------------|-----|-----|-----|-----|-----|-----|
| Sales | | ... | ... | ... | ... | ... | ... |
| Collections | | | | | | | |
| | A%month of sale | | | | | | |
| | B%one month after | | | | | | |
| | C%two months after | | | | | | |
| Total Receipts | | | | | | | |
| | | | | | | | |



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The Structure: Worksheet (just an example!!)

| | | Feb | Mar | Apr | May | Jun | Jul |
|--------------------|---|-----|-----|-----|-----|-----|-----|
| Sales | | ... | ... | ... | ... | ... | ... |
| Collections | | | | | | | |
| A%month of sale | | A | | | | | |
| B%one month after | - | | B | | | | |
| C%two months after | - | | - | C | | | |
| Total Receipts | | Feb | Mar | Apr | May | Jun | Jul |



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The Structure: Worksheet (just an example!!)

| | Feb | Mar | Apr | May | Jun | Jul |
|--------------------|-----|-----|-----|-----|-----|-----|
| Sales | ... | ... | ... | ... | ... | ... |
| Collections | A | B | | | | |
| A%month of sale | - | | | | | |
| B%one month after | - | | | | | |
| C%two months after | - | - | | | | |
| Total Receipts | | | | | | |



NOT THIS!! The percentages are applied to the top sales number, not the collections numbers.

President Trump would make
this face at you and say
“You’re Fired”

The Structure: Worksheet (just an example!!)

| | | Feb | Mar | Apr | May | Jun | Jul |
|------------------------------|---------------------------|-----|-----|-----|-----|-----|-----|
| Sales | | ... | ... | ... | ... | ... | ... |
| Collections | A%month of sale | | | | | | |
| | B%one month after | | | | | | |
| | C%two months after | | | | | | |
| Total Receipts | | Feb | Mar | Apr | May | Jun | Jul |
| Purchases | XX%one month lead (maybe) | | | | | | |
| | X%month of purchase | | | | | | |
| | Y%one month after | | | | | | |
| | Z%two months after | | | | | | |
| Total Payments for Purchases | | Feb | Mar | Apr | May | Jun | Jul |

The diagram illustrates the timing of cash flows relative to sales and purchases:

- Sales:** Represented by a green arrow pointing downwards from the Sales row to the Collections row.
- Collections:** Represented by three points labeled A, B, and C, corresponding to the percentages A%, B%, and C% listed in the Collections row. Point A is in Feb, point B is in Mar, and point C is in Apr.
- Total Receipts:** Represented by a blue arrow pointing downwards from the Total Receipts row to the Purchases row.
- Purchases:** Represented by a blue arrow pointing downwards from the Purchases row to the Total Payments for Purchases row.
- Total Payments for Purchases:** Represented by a blue arrow pointing downwards from the Total Payments for Purchases row to the same row.
- Timing:** The arrows indicate that collections occur in the month following the sale (B%), two months following the sale (C%), and the same month as purchases (X%). Payments for purchases occur in the month following the purchase (Y%) and two months following the purchase (Z%).

The Structure: Cash Budget

| | |
|---------------------------------------|-----------------------|
| Beginning balance | <i>From worksheet</i> |
| Add: Receipts [Other cash inflows] | |
| | |
| Total Cash Available | |



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The Structure: Cash Budget

Calculate on the side! Often
has multiple parts.

| | |
|---|-----------------------|
| Beginning balance | <i>From worksheet</i> |
| Add: Receipts [Other cash inflows] | |
| Total Cash Available | |
| Less: Disbursements | <i>From worksheet</i> |
| Purchases [STUFF! Admin, Dividends, Rent whatever] | |
| Interest (a.k.a. the worst) | |
| Taxes | |
| Total Disbursements | |



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The Structure: Cash Budget

Calculate on the side! Often
has multiple parts.

| | |
|--|---|
| Beginning balance | <i>From worksheet</i> |
| Add: Receipts [Other cash inflows] | |
| Total Cash Available | |
| Less: Disbursements | |
| Purchases | <i>From worksheet</i> |
| [STUFF! Admin, Dividends, Rent whatever] | |
| Interest (a.k.a. the worst) | |
| Taxes | |
| Total Disbursements | |
| Cash Excess/Deficiency | <i>TCA - TD</i> |
| Minimum balance required | <i>Given.</i> |
| Borrowing required | |
| Cash surplus | <i>One or the other!</i> |
| Loan repayment | <i>“surplus must be used to repay...”</i> |
| Ending Balance | |

The Structure: Cash Budget

Calculate on the side! Often
has multiple parts.

| | |
|--|---|
| Beginning balance | <i>From worksheet</i> |
| Add: Receipts [Other cash inflows] | |
| Total Cash Available | |
| Less: Disbursements | |
| Purchases | <i>From worksheet</i> |
| [STUFF! Admin, Dividends, Rent whatever] | |
| Interest (a.k.a. the worst) | |
| Taxes | |
| Total Disbursements | |
| Cash Excess/Deficiency | <i>TCA - TD</i> |
| Minimum balance required | <i>Given.</i> |
| Borrowing required | |
| Cash surplus | <i>One or the other!</i> |
| Loan repayment | <i>“surplus must be used to repay...”</i> |
| Ending Balance | |

Next month's beginning balance!

The Structure: Cash Budget

Beginning balance

Add: Receipts

[Other cash inflows]

Total Cash Available

Less: Disbursements

Purchases

[STUFF! Admin, Dividends, Rent whatever]

Interest (a.k.a. the worst)

Taxes

Total Disbursements

Cash Excess/Deficiency

Minimum balance required

Borrowing required

Cash surplus

Loan repayment

Ending Balance

**WRITE THIS OUT 12 BILLION TIMES IF THAT'S
WHAT IT TAKES!**

MUST memorize and be ready to create this on the exam. Leave room horizontally for multiple months.

And do not write “Stuff” on your exam... please.



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Close reading

From your lab manual:
Lab 7 Q2

1. Prepare a cash budget for the Ace Manufacturing Company Ltd., indicating receipts and disbursements for May, June and July. The firm wishes to maintain, at all times, a minimum cash balance of \$20,000. Determine whether or not borrowing will be necessary during the period and, if it is, when and for how much. Assume all borrowing occurs at the end of the month, and interest (at the rate of 6%) is paid at the end of the month as well. As of April 30, the firm had a balance of \$20,000 in cash.

| Actual Sales | | | |
|---|----------|---|-----------|
| January | \$50,000 | May | \$ 70,000 |
| February | 50,000 | June | 80,000 |
| March | 60,000 | July | 100,000 |
| April | 60,000 | August | 100,000 |
| Accounts Receivable | | <ul style="list-style-type: none">• 50 percent of total sales are for cash. The remaining 50 percent will be collected equally during the following two months. | |
| Cost of Goods Manufactured | | <ul style="list-style-type: none">• 70 percent of sales. 90 percent of this cost is paid during the first month after it occurs, the remaining 10 percent is paid the following month. | |
| Sales & Admin. Expenses | | <ul style="list-style-type: none">• \$10,000 per month plus 10 percent of sales | |
| All of these expenses are paid during the month of in which they occur. | | | |
| Interest Payments | | <ul style="list-style-type: none">• A semi-annual interest payment on \$300,000 of bonds outstanding (6 percent coupon) is paid during July. An annual sinking fund payment of \$50,000 is also made in July. | |
| Dividends | | <ul style="list-style-type: none">• A \$10,000 dividend payment will be declared and paid in July. | |
| Capital Expenditures | | <ul style="list-style-type: none">• \$40,000 will be invested in plant and equipment in June. | |
| Taxes | | <ul style="list-style-type: none">• Income tax payments of \$1,000 will be made in July. | |

Close reading

B

Minimum
balance required

Beginning balance

Set for the Ace Manufacturing Company for May, June and July. The firm wishes to maintain a minimum cash balance of \$20,000. Determine whether or not borrowing is necessary during the period and, if it is, when and for how much. Assume borrowing occurs at the end of the month, and interest (at the rate of 6%) is paid at the end of the month as well. As of April 30, the firm had a balance of \$20,000 in cash.

Interest rate

Assume it is annual unless otherwise stated!

B



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Close reading

B

Minimum
balance required

Beginning balance

Set for the Ace Manufacturing Company for May, June and July. The firm wishes to maintain a minimum cash balance of \$20,000. Determine whether or not borrowing is necessary during the period and, if it is, when and for how much. Assume that borrowing occurs at the end of the month, and interest (at the rate of 6%) is paid at the end of the month as well. As of April 30, the firm had a balance of \$20,000 in cash.

Interest rate

Assume it is annual unless otherwise stated!

B

Actual Sales

| | | | |
|----------|----------|--------|-----------|
| January | \$50,000 | May | \$ 70,000 |
| February | 50,000 | June | 80,000 |
| March | 60,000 | July | 100,000 |
| April | 60,000 | August | 100,000 |

W

Months and sales
(first two rows)



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Close reading

Accounts Receivable

- 50 percent of total sales are for cash. The remaining 50 percent will be collected equally during the following two months.
- 70 percent of sales. 90 percent of this cost is paid during the first month after it occurs, the remaining 10 percent is paid the following month.

Cost of Goods Manufactured

Sales & Admin. Expenses

- \$10,000 per month plus 10 percent of sales

All of these expenses are paid during the month of in which they occur.

Interest Payments

- A semi-annual interest payment on \$300,000 of bonds outstanding (6 percent coupon) is paid during July. An annual sinking fund payment of \$50,000 is also made in July.

Dividends

- A \$10,000 dividend payment will be declared and paid in July.

Capital Expenditures

- \$40,000 will be invested in plant and equipment in June.

Taxes

- Income tax payments of \$1,000 will be made in July.



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Close reading

Accounts Receivable

W

Cost of
Goods Manufactured

B

Sales & Admin

- 50 percent of total sales are for cash. The remaining 50 percent will be collected equally during the following two months. Tricky wording (25% and 25%)
- 70 percent of sales. 90 percent of this cost is paid during the first month after it occurs, the remaining 10 percent is paid the following month.

\$10,000 per month plus 10 percent of sales

Payment percentages

All of these expenses are paid during the month of in which they occur.

B

Interest:
 $300,000 \times 0.06 / 2 = 9000$

- A semi-annual interest payment on \$300,000 of bonds outstanding (6 percent coupon) is paid during July. An annual sinking fund payment of 50,000 is also made in July.

Sinking fund (stuff!)

Dividends

B

- \$10,000 dividend payment will be declared and paid in July.

Capital Expenditures

B

- \$40,000 will be invested in plant and equipment in June.

Taxes

B

- Income tax payment of \$1,000 will be made in July.



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Close reading

Accounts Receivable

W

Cost of
Goods Manufactured

B

Sales & Admin

- 50 percent of total sales are for cash. The remaining 50 percent will be collected equally during the following two months.
- 70 percent of sales. 90 percent of this cost is paid during the first month after it occurs, the remaining 10 percent is paid the following month.

\$10,000 per month plus 10 percent of sales

Payment percentages

All of these expenses are paid during the month of in which they occur.

B

Interest:
 $300,000 \times 0.06 / 2 = 9000$

- A semi-annual interest payment on \$300,000 of bonds outstanding (6 percent coupon) is paid during July. An annual sinking fund payment of **50,000** is also made in July.

Sinking fund (stuff!)

Dividends

B

- **\$10,000** dividend payment will be declared and paid in July.

Capital Expenditures

B

- \$40,000 will be invested in plant and equipment in June.

Taxes

B

- Income tax payment of **\$1,000** will be made in July.

Amortization for the month of May

- \$2,000

?



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Close reading

Accounts Receivable

W

Cost of
Goods Manufactured

B

Sales & Admin

- 50 percent of total sales are for cash. The remaining 50 percent will be collected equally during the following two months.
- 70 percent of sales. 90 percent of this cost is paid during the first month after it occurs, the remaining 10 percent is paid the following month.

\$10,000 per month plus 10 percent of sales

Payment percentages

All of these expenses are paid during the month of in which they occur.

B

Interest:
 $300,000 \times 0.06 / 2 = 9000$

- A semi-annual interest payment on \$300,000 of bonds outstanding (6 percent coupon) is paid during July. An annual sinking fund payment of **50,000** is also made in July.

Sinking fund (stuff!)

Dividends

B

- **\$10,000** dividend payment will be declared and paid in July.

Capital Expenditures

B

- \$40,000 will be invested in plant and equipment in June.

Taxes

B

- Income tax payment of **\$1,000** will be made in July.

Amortization for the month of May

\$2,000

DISTRACTOR!! Not a cash expense.

NTS
PORT

Creating the Worksheet

| | | Mar | Apr | May | Jun | Jul | Aug |
|----------------------|--|--------|--------|--------|--------|---------|---------|
| Sales | | 60,000 | 60,000 | 70,000 | 80,000 | 100,000 | 100,000 |
| Collections | | | | | | | |
| 50% month of sale | | | | | | | |
| 25% one month after | | | | | | | |
| 25% two months after | | | | | | | |
| Total Receipts | | | | | | | |



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Creating the Worksheet

| | | Mar | Apr | May | Jun | Jul | Aug |
|----------------------|--|--------|--------|--------|--------|---------|---------|
| Sales | | 60,000 | 60,000 | 70,000 | 80,000 | 100,000 | 100,000 |
| Collections | | | | | | | |
| 50% month of sale | | 30,000 | - | 15,000 | - | 15,000 | |
| 25% one month after | | - | - | - | - | - | |
| 25% two months after | | - | - | - | - | - | |
| Total Receipts | | - | - | 65,000 | - | - | - |



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Creating the Worksheet

| | | Mar | Apr | May | Jun | Jul | Aug |
|----------------------|--|--------|--------|--------|--------|---------|---------|
| Sales | | 60,000 | 60,000 | 70,000 | 80,000 | 100,000 | 100,000 |
| Collections | | | | | | | |
| 50% month of sale | | 30,000 | 30,000 | 35,000 | 40,000 | 50,000 | 50,000 |
| 25% one month after | | - | 15,000 | 15,000 | 17,500 | 20,000 | 25,000 |
| 25% two months after | | - | - | 15,000 | 15,000 | 17,500 | 20,000 |
| Total Receipts | | - | - | 65,000 | 72,500 | 87,500 | - |



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Creating the Worksheet

| | | Mar | Apr | May | Jun | Jul | Aug |
|--|--|--------|--------|--------|--------|---------|---------|
| Sales | | 60,000 | 60,000 | 70,000 | 80,000 | 100,000 | 100,000 |
| Collections | | | | | | | |
| 50% month of sale | | 30,000 | 30,000 | 35,000 | 40,000 | 50,000 | 50,000 |
| 25% one month after | | - | 15,000 | 15,000 | 17,500 | 20,000 | 25,000 |
| 25% two months after | | - | - | 15,000 | 15,000 | 17,500 | 20,000 |
| Total Receipts | | - | - | 65,000 | 72,500 | 87,500 | - |
| Purchases | | | | | | | |
| 70% no lead time | | | | | | | |
| <i>(nothing paid in the month of purchase in this example)</i> | | | | | | | |
| 90% one month after | | | | | | | |
| 10% two months after | | | | | | | |
| Total Payments for Purchases | | | | | | | |



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Creating the Worksheet

| | | Mar | Apr | May | Jun | Jul | Aug |
|------------------------------|--|--------|--------|--------|--------|---------|---------|
| Sales | | 60,000 | 60,000 | 70,000 | 80,000 | 100,000 | 100,000 |
| Collections | | | | | | | |
| 50% month of sale | | 30,000 | 30,000 | 35,000 | 40,000 | 50,000 | 50,000 |
| 25% one month after | | - | 15,000 | 15,000 | 17,500 | 20,000 | 25,000 |
| 25% two months after | | - | - | 15,000 | 15,000 | 17,500 | 20,000 |
| Total Receipts | | - | - | 65,000 | 72,500 | 87,500 | - |
| Purchases | | | | | | | |
| 70% no lead time | | | 42,000 | | | | |
| 90% one month after | | | | | | | |
| 10% two months after | | | | | | | |
| Total Payments for Purchases | | | | | | | |



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Creating the Worksheet

| | | Mar | Apr | May | Jun | Jul | Aug |
|------------------------------|--|--------|--------|--------|--------|---------|---------|
| Sales | | 60,000 | 60,000 | 70,000 | 80,000 | 100,000 | 100,000 |
| Collections | | | | | | | |
| 50% month of sale | | 30,000 | 30,000 | 35,000 | 40,000 | 50,000 | 50,000 |
| 25% one month after | | - | 15,000 | 15,000 | 17,500 | 20,000 | 25,000 |
| 25% two months after | | - | - | 15,000 | 15,000 | 17,500 | 20,000 |
| Total Receipts | | - | - | 65,000 | 72,500 | 87,500 | - |
| Purchases | | | | | | | |
| 70% no lead time | | 42,000 | 42,000 | 49,000 | 56,000 | 70,000 | 70,000 |
| 90% one month after | | | | | | | |
| 10% two months after | | | | | | | |
| Total Payments for Purchases | | | | | | | |



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Creating the Worksheet

| | | Mar | Apr | May | Jun | Jul | Aug |
|------------------------------|--|--------|--------|--------|--------|---------|---------|
| Sales | | 60,000 | 60,000 | 70,000 | 80,000 | 100,000 | 100,000 |
| Collections | | | | | | | |
| 50% month of sale | | 30,000 | 30,000 | 35,000 | 40,000 | 50,000 | 50,000 |
| 25% one month after | | - | 15,000 | 15,000 | 17,500 | 20,000 | 25,000 |
| 25% two months after | | - | - | 15,000 | 15,000 | 17,500 | 20,000 |
| Total Receipts | | - | - | 65,000 | 72,500 | 87,500 | - |
| Purchases | | | | | | | |
| 70% no lead time | | 42,000 | 42,000 | 49,000 | 56,000 | 70,000 | 70,000 |
| 90% one month after | | - | 37,800 | - | - | - | - |
| 10% two months after | | - | - | - | 4,200 | - | - |
| Total Payments for Purchases | | - | - | - | - | - | - |

The diagram illustrates the flow of cash through the company. It starts with Sales in March (60,000), which leads to Collections in April (30,000) and May (35,000). Collections in April also come from March sales (30,000). Collections in May also come from April sales (15,000). Collections in June (15,000) come from May sales (15,000). Collections in July (15,000) come from June sales (15,000). Collections in August (20,000) come from July sales (17,500) and two months ago (2,500). Total Receipts in August are 87,500.

The purchases flow from Sales. In March, 70% of sales (42,000) are paid immediately. 90% of purchases are paid one month later (37,800), and 10% are paid two months later (4,200). Total payments for purchases in August are 70,000.



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Creating the Worksheet

| | | Mar | Apr | May | Jun | Jul | Aug |
|------------------------------|--|--------|--------|--------|--------|---------|---------|
| Sales | | 60,000 | 60,000 | 70,000 | 80,000 | 100,000 | 100,000 |
| Collections | | | | | | | |
| 50% month of sale | | 30,000 | 30,000 | 35,000 | 40,000 | 50,000 | 50,000 |
| 25% one month after | | - | 15,000 | 15,000 | 17,500 | 20,000 | 25,000 |
| 25% two months after | | - | - | 15,000 | 15,000 | 17,500 | 20,000 |
| Total Receipts | | - | - | 65,000 | 72,500 | 87,500 | - |
| Purchases | | | | | | | |
| 70% no lead time | | 42,000 | 42,000 | 49,000 | 56,000 | 70,000 | 70,000 |
| 90% one month after | | - | 37,800 | 37,800 | 44,100 | 50,400 | 63,000 |
| 10% two months after | | - | - | 4,200 | 4,200 | 4,900 | 5,600 |
| Total Payments for Purchases | | - | - | 42,000 | 48,300 | 55,300 | - |

The diagram illustrates the flow of cash through the company. It starts with Sales in March (60,000), which leads to Collections in April (30,000). These collections then contribute to Total Receipts in May (65,000). Simultaneously, Purchases in March (42,000) lead to Total Payments for Purchases in April (42,000). These payments then contribute to Total Receipts in May (65,000). The process continues through June, July, and August, with Sales increasing to 100,000 by July and Purchases increasing to 70,000 by July.



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Creating the Cash Budget

| | May | June | July |
|----------------------------|-----|------|------|
| Beginning balance | | | |
| Add: Receipts | | | |
| Total Cash Available | | | |
| Less: Disbursements | | | |
| Purchases | | | |
| Sales & Admin | | | |
| Dividends | | | |
| Sinking fund | | | |
| Capital Expenditure | | | |
| Interest | | | |
| Taxes | | | |
| Total Disbursements | | | |
| Cash Excess/Deficiency | | | |
| Minimum balance required | | | |
| Borrowing required | | | |
| Cash Surplus | | | |
| Loan repayment | | | |
| Ending Balance | | | |



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Creating the Cash Budget

| | May | June | July |
|----------------------------|--------|--------|--------|
| Beginning balance | 20,000 | | |
| Add: Receipts | 65,000 | 72,500 | 87,500 |
| Total Cash Available | 85,000 | | |
| Less: Disbursements | | | |
| Purchases | 42,000 | 48,300 | 55,300 |
| Sales & Admin | | | |
| Dividends | | | |
| Sinking fund | | | |
| Capital Expenditure | | | |
| Interest | | | |
| Taxes | | | |
| Total Disbursements | | | |
| Cash Excess/Deficiency | | | |
| Minimum balance required | 20,000 | 20,000 | 20,000 |
| Borrowing required | | | |
| Cash Surplus | | | |
| Loan repayment | | | |
| Ending Balance | | | |

Creating the Cash Budget

| | May | June | July |
|----------------------------|--------|---|--------|
| Beginning balance | 20,000 | | |
| Add: Receipts | 65,000 | 72,500 | 87,500 |
| Total Cash Available | 85,000 | | |
| Less: Disbursements | | | |
| Purchases | 42,000 | 48,300 | 55,300 |
| Sales & Admin | 17,000 | - $10,000 + 70,000(0.1)$ <i>70,000 is May Sales</i> | |
| Dividends | - | | |
| Sinking fund | - | | |
| Capital Expenditure | - | | |
| Interest | - | | |
| Taxes | - | | |
| Total Disbursements | 59,000 | | |
| Cash Excess/Deficiency | | | |
| Minimum balance required | 20,000 | 20,000 | 20,000 |
| Borrowing required | | | |
| Cash Surplus | | | |
| Loan repayment | | | |
| Ending Balance | | | |



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Creating the Cash Budget

| | May | June | July |
|----------------------------|---------------|--------|--------|
| Beginning balance | 20,000 | | |
| Add: Receipts | 65,000 | 72,500 | 87,500 |
| Total Cash Available | 85,000 | | |
| Less: Disbursements | | | |
| Purchases | 42,000 | 48,300 | 55,300 |
| Sales & Admin | 17,000 | | |
| Dividends | - | | |
| Sinking fund | - | | |
| Capital Expenditure | - | | |
| Interest | - | | |
| Taxes | - | | |
| Total Disbursements | 59,000 | | |
| | | | |
| Cash Excess/Deficiency | 26,000 | | |
| Minimum balance required | 20,000 | 20,000 | 20,000 |
| Borrowing required | - | | |
| Cash Surplus | 6,000 | | |
| Loan repayment | - | | |
| Ending Balance | 26,000 | | |

Creating the Cash Budget

| | May | June | July |
|----------------------------|---------------|--------|--------|
| Beginning balance | 20,000 | 26,000 | |
| Add: Receipts | 65,000 | 72,500 | 87,500 |
| Total Cash Available | 85,000 | 98,500 | |
| Less: Disbursements | | | |
| Purchases | 42,000 | 48,300 | 55,300 |
| Sales & Admin | 17,000 | | |
| Dividends | - | | |
| Sinking fund | - | | |
| Capital Expenditure | - | | |
| Interest | - | | |
| Taxes | - | | |
| Total Disbursements | 59,000 | | |
| | | | |
| Cash Excess/Deficiency | 26,000 | | |
| Minimum balance required | 20,000 | 20,000 | 20,000 |
| Borrowing required | - | | |
| Cash Surplus | 6,000 | | |
| Loan repayment | - | | |
| | | | |
| Ending Balance | 26,000 | | |

Creating the Cash Budget

| | May | June | July |
|----------------------------|--------|---------|--------|
| Beginning balance | 20,000 | 26,000 | |
| Add: Receipts | 65,000 | 72,500 | 87,500 |
| Total Cash Available | 85,000 | 98,500 | |
| Less: Disbursements | | | |
| Purchases | 42,000 | 48,300 | 55,300 |
| Sales & Admin | 17,000 | 18,000 | |
| Dividends | - | - | |
| Sinking fund | - | - | |
| Capital Expenditure | - | 40,000 | |
| Interest | - | - | |
| Taxes | - | - | |
| Total Disbursements | 59,000 | 106,300 | |
| | | | |
| Cash Excess/Deficiency | 26,000 | | |
| Minimum balance required | 20,000 | 20,000 | 20,000 |
| Borrowing required | - | | |
| Cash Surplus | 6,000 | | |
| Loan repayment | - | | |
| | | | |
| Ending Balance | 26,000 | | |

$10,000 + 80,000(0.1)$
 80,000 is June Sales

Creating the Cash Budget

| | May | June | July |
|-------------------------------|--------|---------|--------|
| Beginning balance | 20,000 | 26,000 | |
| Add: Receipts | 65,000 | 72,500 | 87,500 |
| Total Cash Available | 85,000 | 98,500 | |
| Less: Disbursements | | | |
| Purchases | 42,000 | 48,300 | 55,300 |
| Sales & Admin | 17,000 | 18,000 | |
| Dividends | - | - | |
| Sinking fund | - | - | |
| Capital Expenditure | - | 40,000 | |
| Interest | - | - | |
| Taxes | - | - | |
| Total Disbursements | 59,000 | 106,300 | |
| Cash Excess/Deficiency | 26,000 | -7,800 | |
| Minimum balance required | 20,000 | 20,000 | 20,000 |
| Borrowing required | - | 27,800 | |
| Cash Surplus | 6,000 | - | |
| Loan repayment | - | - | |
| Ending Balance | 26,000 | 20,000 | |

Creating the Cash Budget

| | May | June | July |
|----------------------------|--------|---------|---------|
| Beginning balance | 20,000 | 26,000 | 20,000 |
| Add: Receipts | 65,000 | 72,500 | 87,500 |
| Total Cash Available | 85,000 | 98,500 | 107,500 |
| Less: Disbursements | | | |
| Purchases | 42,000 | 48,300 | 55,300 |
| Sales & Admin | 17,000 | 18,000 | |
| Dividends | - | - | |
| Sinking fund | - | - | |
| Capital Expenditure | - | 40,000 | |
| Interest | - | - | |
| Taxes | - | - | |
| Total Disbursements | 59,000 | 106,300 | |
| | | | |
| Cash Excess/Deficiency | 26,000 | -7,800 | |
| Minimum balance required | 20,000 | 20,000 | 20,000 |
| Borrowing required | - | 27,800 | |
| Cash Surplus | 6,000 | - | |
| Loan repayment | - | - | |
| | | | |
| Ending Balance | 26,000 | 20,000 | |

Creating the Cash Budget

| | May | June | July |
|----------------------------|--------|---------|---------|
| Beginning balance | 20,000 | 26,000 | 20,000 |
| Add: Receipts | 65,000 | 72,500 | 87,500 |
| Total Cash Available | 85,000 | 98,500 | 107,500 |
| Less: Disbursements | | | |
| Purchases | 42,000 | 48,300 | 55,300 |
| Sales & Admin | 17,000 | 18,000 | 20,000 |
| Dividends | - | - | 10,000 |
| Sinking fund | - | - | 50,000 |
| Capital Expenditure | - | 40,000 | - |
| Interest | - | - | 9,139 |
| Taxes | - | - | 1,000 |
| Total Disbursements | 59,000 | 106,300 | 145,439 |
| | | | |
| Cash Excess/Deficiency | 26,000 | -7,800 | |
| Minimum balance required | 20,000 | 20,000 | 20,000 |
| Borrowing required | - | 27,800 | |
| Cash Surplus | 6,000 | - | |
| Loan repayment | - | - | |
| | | | |
| Ending Balance | 26,000 | 20,000 | |

10,000 + 100,000(0.1)
100,000 is July Sales



Creating the Cash Budget

| | May | June | July |
|-------------------------------|--------|---------|---------|
| Beginning balance | 20,000 | 26,000 | 20,000 |
| Add: Receipts | 65,000 | 72,500 | 87,500 |
| Total Cash Available | 85,000 | 98,500 | 107,500 |
| Less: Disbursements | | | |
| Purchases | 42,000 | 48,300 | 55,300 |
| Sales & Admin | 17,000 | 18,000 | 20,000 |
| Dividends | - | - | 10,000 |
| Sinking fund | - | - | 50,000 |
| Capital Expenditure | - | 40,000 | - |
| Interest | - | - | 9,139 |
| Taxes | - | - | 1,000 |
| Total Disbursements | 59,000 | 106,300 | 145,439 |
| Cash Excess/Deficiency | 26,000 | -7,800 | |
| Minimum balance required | 20,000 | 20,000 | 20,000 |
| Borrowing required | - | 27,800 | |
| Cash Surplus | 6,000 | - | |
| Loan repayment | - | - | |
| Ending Balance | 26,000 | 20,000 | |

9,000 from bond.
(see earlier slides)

139 from June loan.

$27,800 * 0.06 / 12$

6% annual rate,
so divide it by 12
for monthly!

Creating the Cash Budget

| | May | June | July |
|----------------------------|---------------|----------------|----------------|
| Beginning balance | 20,000 | 26,000 | 20,000 |
| Add: Receipts | 65,000 | 72,500 | 87,500 |
| Total Cash Available | 85,000 | 98,500 | 107,500 |
| Less: Disbursements | | | |
| Purchases | 42,000 | 48,300 | 55,300 |
| Sales & Admin | 17,000 | 18,000 | 20,000 |
| Dividends | - | - | 10,000 |
| Sinking fund | - | - | 50,000 |
| Capital Expenditure | - | 40,000 | - |
| Interest | - | - | 9,139 |
| Taxes | - | - | 1,000 |
| Total Disbursements | 59,000 | 106,300 | 145,439 |
| | | | |
| Cash Excess/Deficiency | 26,000 | -7,800 | -37,939 |
| Minimum balance required | 20,000 | 20,000 | 20,000 |
| Borrowing required | - | 27,800 | 57,939 |
| Cash Surplus | 6,000 | - | - |
| Loan repayment | - | - | - |
| Ending Balance | 26,000 | 20,000 | 20,000 |

Answer the question!

Determine whether or not borrowing will be necessary during the period and, if it is, when and for how much.

Borrowing of \$27,800 is required in June.
Borrowing of \$57,939 is required in July.

We did it! Woop wooooop



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Review: Approach to Cash Budget

1. Know the structure
2. Read line-by-line: **Budget** or **Worksheet?**
3. Get ready for interest tricks
 - If there are CLEARLY multiple types of interests, you CAN set them up as separate rows.
 - For example, “Bond interest” and “Credit line interest”
4. Distractors? **NOT IN MY HOUSE!**



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Cash Burn

Compare Cash Build and Cash Burn

Cash Build = Net Sales - Increase in Receivables

Cash Burn =

- Operating expenses (COGS, marketing, admin)
- + Interest expense
- + Tax expense
- + Increase in inventories
- (Changes in Payables + Accrued Liabilities)
- + Capital Expenditures



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Cash Burn Example

Cash Burn Question 1 from the lab manual

Cash Burn Exercises

1. Following are two years of income statements and balance sheets for the Munich Exports Corporation:

MUNICH EXPORTS CORPORATION
Balance Sheet

| | 2009 | 2010 |
|----------------------------|--------------------|--------------------|
| Cash | \$ 50,000 | \$ 50,000 |
| Accounts Receivables | 200,000 | 300,000 |
| Inventories | <u>450,000</u> | <u>570,000</u> |
| Total Current Assets | 700,000 | 920,000 |
| Fixed Assets, Net | <u>300,000</u> | <u>380,000</u> |
| Total Assets | <u>\$1,000,000</u> | <u>\$1,300,000</u> |
| | | |
| Accounts Payable | \$ 130,000 | \$ 180,000 |
| Accruals | 50,000 | 70,000 |
| Bank Loan | <u>90,000</u> | <u>90,000</u> |
| Total Current Liabilities | 270,000 | 340,000 |
| Long-Term Debt | 400,000 | 550,000 |
| Common Stock (\$.05 par) | 50,000 | 50,000 |
| Additional Paid-in-Capital | 200,000 | 200,000 |
| Retained Earnings | <u>80,000</u> | <u>160,000</u> |
| Total Liab. & Equity | <u>\$1,000,000</u> | <u>\$1,300,000</u> |

MUNICH EXPORTS CORPORATION
Income Statement

| | 2009 | 2010 |
|--------------------------|------------------|-------------------|
| Net Sales | \$1,300,000 | \$1,600,000 |
| Cost of Goods Sold | <u>780,000</u> | <u>960,000</u> |
| Gross Profit | 520,000 | 640,000 |
| Marketing | 130,000 | 160,000 |
| General & Administrative | 150,000 | 150,000 |
| Depreciation | <u>40,000</u> | <u>55,000</u> |
| EBIT | 200,000 | 275,000 |
| Interest | <u>45,000</u> | <u>55,000</u> |
| Earnings Before Taxes | 155,000 | 220,000 |
| Income Taxes (40% rate) | <u>62,000</u> | <u>88,000</u> |
| Net Income | <u>\$ 93,000</u> | <u>\$ 132,000</u> |

- (a) Calculate the cash build, cash burn, and net cash burn or build for Munich Exports in 2010.
- (b) Assume that 2011 will be a repeat of 2010. If your answer in Part (a) resulted in a net cash burn position, calculate the net cash burn monthly rate and indicate the number of months remaining "until out of cash." If your answer in Part (a) resulted in a net cash build position, calculate the net cash build monthly rate and indicate the expected cash balance at the end of 2011.

Cash Burn Example

MUNICH EXPORTS CORPORATION
Balance Sheet

| | 2009 | 2010 |
|----------------------------|--------------------|--------------------|
| Cash | \$ 50,000 | \$ 50,000 |
| Accounts Receivables | 200,000 | 300,000 |
| Inventories | <u>450,000</u> | <u>570,000</u> |
| Total Current Assets | 700,000 | 920,000 |
| Fixed Assets, Net | <u>300,000</u> | <u>380,000</u> |
| Total Assets | <u>\$1,000,000</u> | <u>\$1,300,000</u> |
| | | |
| Accounts Payable | \$ 130,000 | \$ 180,000 |
| Accruals | 50,000 | 70,000 |
| Bank Loan | <u>90,000</u> | <u>90,000</u> |
| Total Current Liabilities | 270,000 | 340,000 |
| Long-Term Debt | 400,000 | 550,000 |
| Common Stock (\$.05 par) | 50,000 | 50,000 |
| Additional Paid-in-Capital | 200,000 | 200,000 |
| Retained Earnings | <u>80,000</u> | <u>160,000</u> |
| Total Liab. & Equity | <u>\$1,000,000</u> | <u>\$1,300,000</u> |

Will be used at the very end



+100k

+120k

+80k

+50k

+20k

Cash Burn Example

| | 2009 | 2010 |
|--------------------------|------------------|-------------------|
| Net Sales | \$1,300,000 | \$1,600,000 |
| Cost of Goods Sold | <u>780,000</u> | <u>960,000</u> |
| Gross Profit | 520,000 | 640,000 |
| Marketing | 130,000 | 160,000 |
| General & Administrative | 150,000 | 150,000 |
| Depreciation | <u>40,000</u> | <u>55,000</u> |
| EBIT | 200,000 | 275,000 |
| Interest | <u>45,000</u> | <u>55,000</u> |
| Earnings Before Taxes | 155,000 | 220,000 |
| Income Taxes (40% rate) | <u>62,000</u> | <u>88,000</u> |
| Net Income | <u>\$ 93,000</u> | <u>\$ 132,000</u> |

Operating Expenses



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DEPRECIATION IS NOT AN OPERATING EXPENSE!!

It's really not!



Please don't include
depreciation as an expense!

DEPRECIATION IS NOT AN
OPERATING EXPENSE!!



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Cash Burn Example

MUNICH EXPORTS CORPORATION Income Statement

| | 2009 | 2010 |
|--------------------------|------------------|-------------------|
| Net Sales | \$1,300,000 | \$1,600,000 |
| Cost of Goods Sold | <u>780,000</u> | <u>960,000</u> |
| Gross Profit | 520,000 | 640,000 |
| Marketing | 130,000 | 160,000 |
| General & Administrative | <u>150,000</u> | <u>150,000</u> |
| Depreciation | <u>40,000</u> | <u>55,000</u> |
| EBIT | 200,000 | 275,000 |
| Interest | <u>45,000</u> | <u>55,000</u> |
| Earnings Before Taxes | 155,000 | 220,000 |
| Income Taxes (40% rate) | <u>62,000</u> | <u>88,000</u> |
| Net Income | <u>\$ 93,000</u> | <u>\$ 132,000</u> |

+15k

Operating Expenses

Other expenses



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Cash Burn Example

Compare Cash Build and Cash Burn

Cash Build for 2010 = $1,600,000 - 100,000 = 1,500,000$

Cash Burn for 2010 =

- Operating expenses
- + Interest expense
- + Tax expense
- + Increase in inventories
- Changes in Payables
- Change in Accrued Liabilities
- + Change in Net fixed assets
- + Change in depreciation

Cash Burn for 2010 = **1,558,000**

- 960k + 160k + 150k
- + 55k
- + 88k
- + 120k
- 50k
- 20k
- + 80k
- + 15k

This gives you capital expenditure



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Cash Burn Example

Compare Cash Build and Cash Burn

Cash Build for 2010 = $1,600,000 - 100,000 = 1,500,000$

Cash Burn for 2010 = **1,558,000**

Net Cash Burn for 2010 = 58,000

Monthly Net Cash Burn = $58,000 / 12 = 4,833.33$

Compare to cash balance at end of 2010. (which is 50,000)

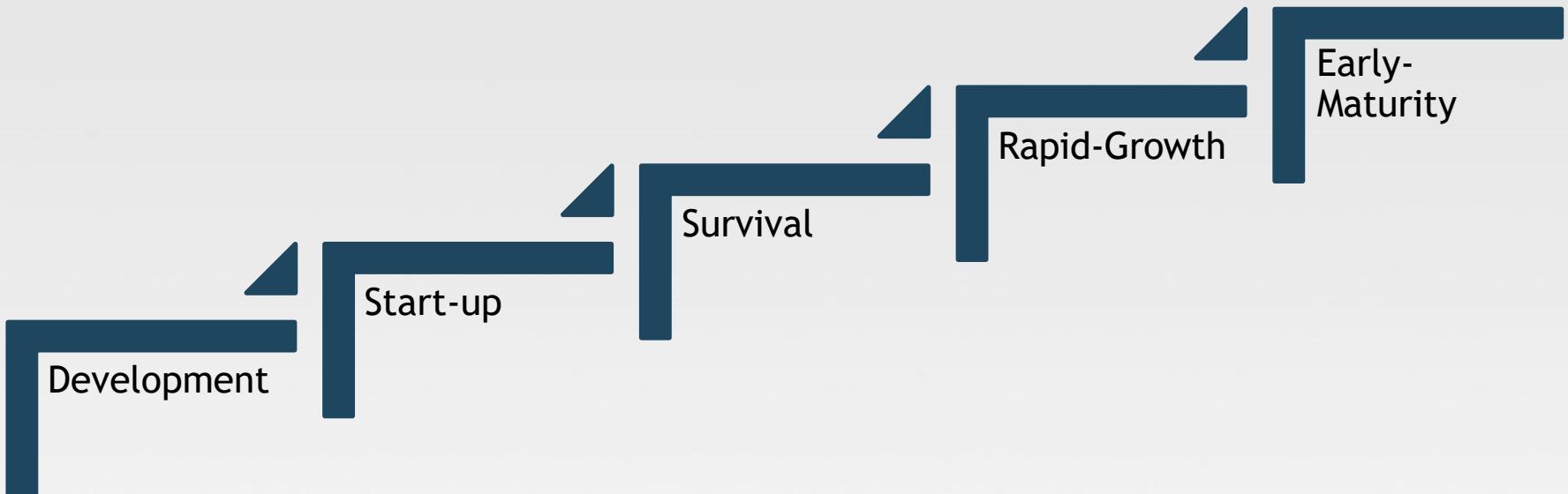
At this rate of cash burn, how many more months until we would be out of cash?

$50,000 / 4,833.33 = 10.3 \text{ months left!}$



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Equity financing process & Cost of Capital



As the firm moves through the stages, the required return for investors decreases



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Types of Financing and Sources

| 1. VENTURE FINANCING | | |
|-----------------------|--|---|
| LIFE CYCLE STAGE | TYPES OF FINANCING | MAJOR SOURCES/PLAYERS |
| Development stage | Seed financing | Entrepreneur's assets Family and friends |
| Startup stage | Startup financing | Entrepreneur's assets Family and friends Business angels Venture capitalists |
| Survival stage | First-round financing | Business operations Venture capitalists Suppliers and customers Government assistance programs Commercial banks |
| Rapid-growth stage | Second-round financing Mezzanine financing Liquidity-stage financing | Business operations Suppliers and customers Commercial banks Investment bankers |
| 2. SEASONED FINANCING | | |
| LIFE CYCLE STAGE | TYPES OF FINANCING | MAJOR SOURCES/PLAYERS |
| Early-maturity stage | Obtaining bank loans Issuing bonds Issuing stock | Business operations Commercial banks Investment bankers |

Structure of venture financing

Common Shares

- Often what we think of with equity valuation
- Does not offer any additional protection for an investor

Preferred Shares

- Typically has seniority to common shares in bankruptcy
- Additional provisions/covenants can protect the investor

Royalties

- Provide investors with a portion of each sales
- Can benefit both the investor and the entrepreneur
 - Investor gets money back quickly and can recoup some money even if the venture ultimately fails
 - Entrepreneur may not have to give up as much equity



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Approaches to Valuation

- Income Approach: assumption that value = sum of the present values of expected future benefits
 - Discounted Cash Flow
 - Discounted for risk and the time value of money
 - Problem is that future cash flows are uncertain
 - Risk Adjusted NPV
 - Adjusted for probability of the event occurring
 - Venture Capital Method
 - Estimate an exit value once milestones are achieved
- Market Approach: value determined based on comparisons of similar companies where values known
- Cost Approach: determined as measure of net costs of assets or original amount invested



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More Detail on VC Method

Example from lecture slides

- Software company has projected after-tax earnings of \$2.5 million in exit/harvest year - year 5
- Typical exit multiple of 15x
- “Terminal value” = Earnings x exit multiple = \$37.5 million
- Using a discount rate that represents the investor’s required rate of return, determine present value: let’s assume 50%
- » $\$37.5 \text{ million} / (1 + .5)^5 = \4.9 million ‘post-money’ valuation
- Entrepreneur is seeking \$3.5 million
- Investor’s ownership requirement = investment / post-money valuation = $\$3.5 / 4.9 \text{ million}$
- Investor will want 71% of the company
- ‘Pre-money’ valuation = ‘Post-money’ valuation - investment
- » $= \$4.9 - 3.5 = \1.4 million

Valuation

- 3 things needed to value an asset
 - Income Stream
 - Growth Rate
 - Discount Rate
- Valuations are also driven by subjective factors such as management team, intellectual property, value prop., etc.



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Growth Strategies

- Intensive Growth Strategies:
 - Market Penetration: sell more of current product to current customers
 - Market Development: sell product in a new geographic market (EX: franchising)
 - Alternative Channels: pursue customers through a different distribution channel
 - Product Development: develop new products to sell to existing and new customers

Growth Strategies

- Integrative Growth Strategies:
 - Horizontal Integration: with competitor
 - Backward Vertical Integration: with supplier
 - Forward Vertical Integration: with distributor
- Diversification: acquire or merge with company that is unrelated to your business



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Blue Ocean Strategy

- Goal is to create a new market space that is currently uncontested, and to make the competition irrelevant
- Need to complete 4 actions:
 - Create
 - Eliminate
 - Raise
 - Reduce



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Harvest & Exit Strategies

- Sell the Company
 - Strategic, Financial or Employee
- Release Firm's Free Cash Flows
- IPO
- Liquidate the Business



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Break time!
Restart at...



Ask us about Finance, DISC, EQI and Negotiations and/or get pumped for Operations, Sustainability, HR, and Labour Relations!

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Sweat Shops and Dead Drops

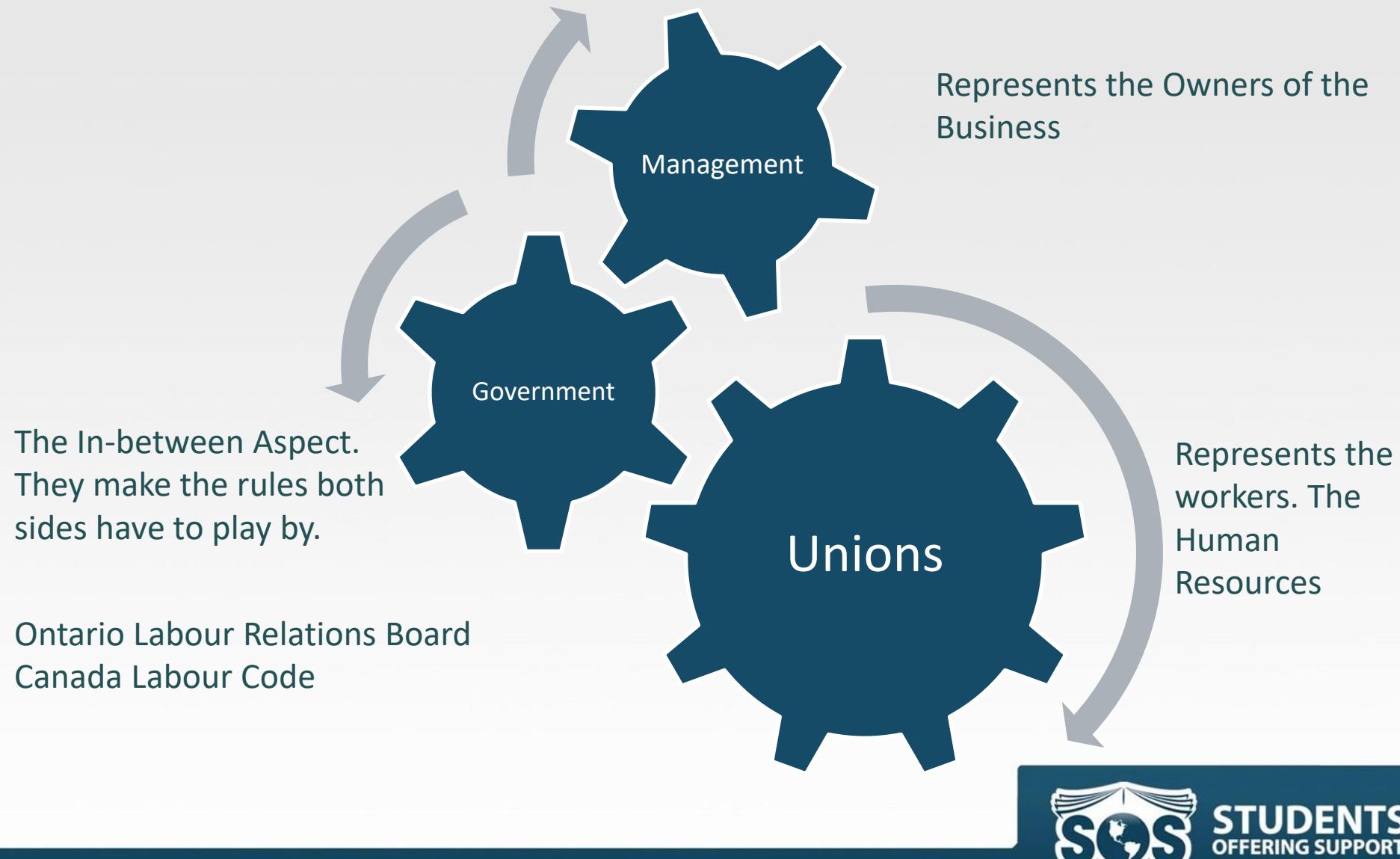
So, you know how there's all these rumours about companies like Nike and Walmart running sweat shops in other countries to produce their merchandise? That actually represents **HUGE** cost savings in terms of wage expenses, benefits and anything that could be considered basic human decency. So I guess the question is... why don't we have more of those in Canada?

The Labour Movement



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Structure of the Labour Movement



Union Structure

Labour Congress

- Mediates disputes between Unions
- Lobbies the Government on behalf of Unions
- Promotes the Interest of Unions

Parent

- Authority over the Local branches
- Part of the Labour Congress
 - Policy, Legal Aid, Strike Fund Control, Research, Collective Bargaining

Local

- Branches of the Parent
- Belong to different companies
- Deal more with worker relations and membership services
 - Grievances, Contract Administration, etc



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Power Plays: Unions Vs. Management



In This Corner....Unions

A main source of a Union's power is the
Threat of a Strike

Timing is key.
You want to threaten a strike when it will
hurt the most

Like if Ish and I went on strike *right before*
the BU121 Final... Or if the Hub went on
strike the day final reports were due.



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In This Corner....Unions

Next we assess the
Ability to carry out a Strike

This is frequently a matter of the size of the
Strike Fund

To keep workers striking you have to use the
strike fund to keep food on their family's
table or they'll have to return to their jobs.



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And in This Corner.... Management



Their strength comes from being able to
withstand a strike

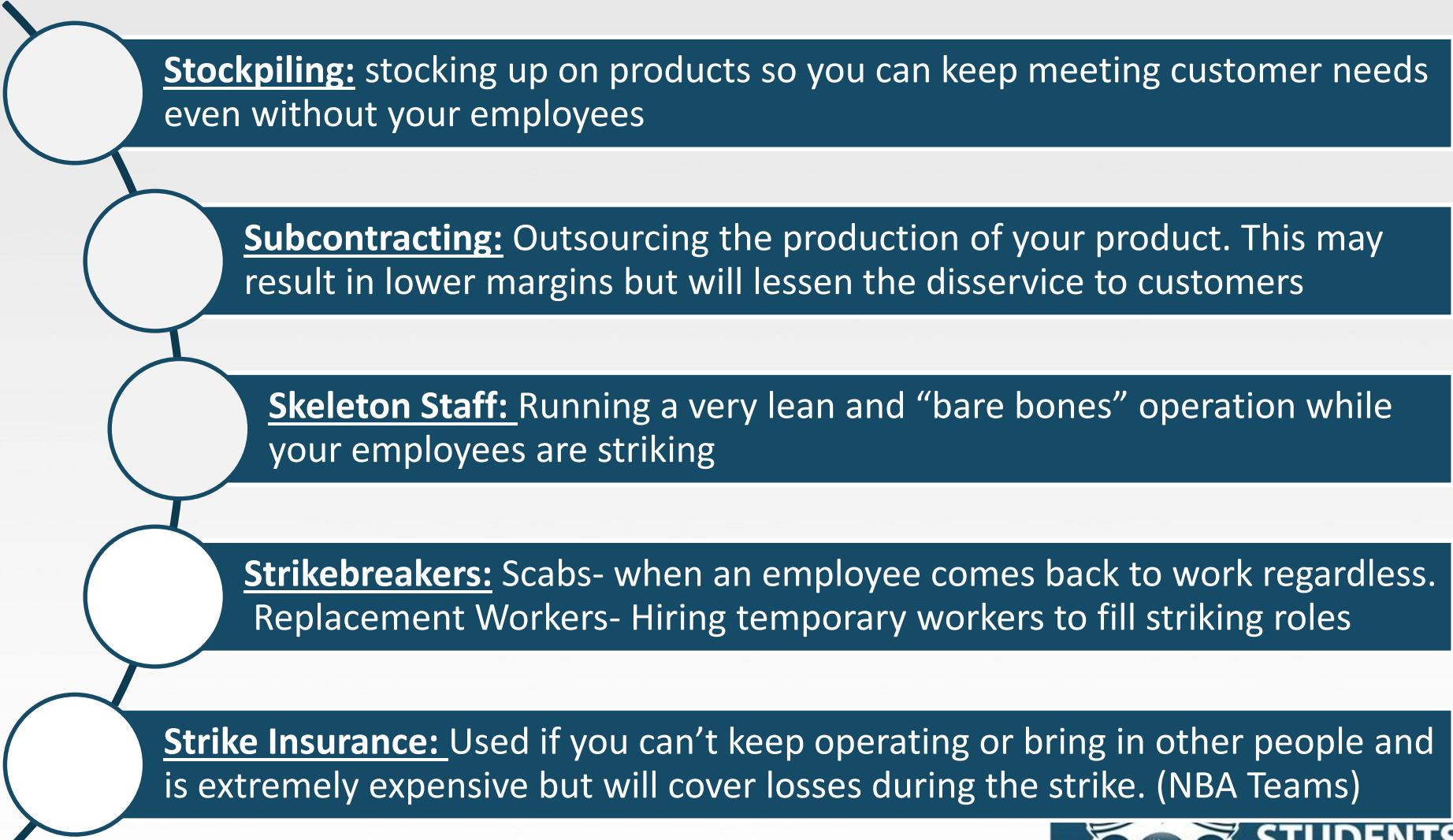
They are essentially saying “Go ahead
and strike, it won’t bother us”

Like what would happen if Alex Carmen and
I actually tried to strike on SOS.



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And in This Corner.... Management



Stockpiling: stocking up on products so you can keep meeting customer needs even without your employees

Subcontracting: Outsourcing the production of your product. This may result in lower margins but will lessen the disservice to customers

Skeleton Staff: Running a very lean and “bare bones” operation while your employees are striking

Strikebreakers: Scabs- when an employee comes back to work regardless. Replacement Workers- Hiring temporary workers to fill striking roles

Strike Insurance: Used if you can't keep operating or bring in other people and is extremely expensive but will cover losses during the strike. (NBA Teams)

And in This Corner.... Management

Industry Wide Lockout: The equivalent of management going on strike.

Every firm in the industry locks out the striking employees.

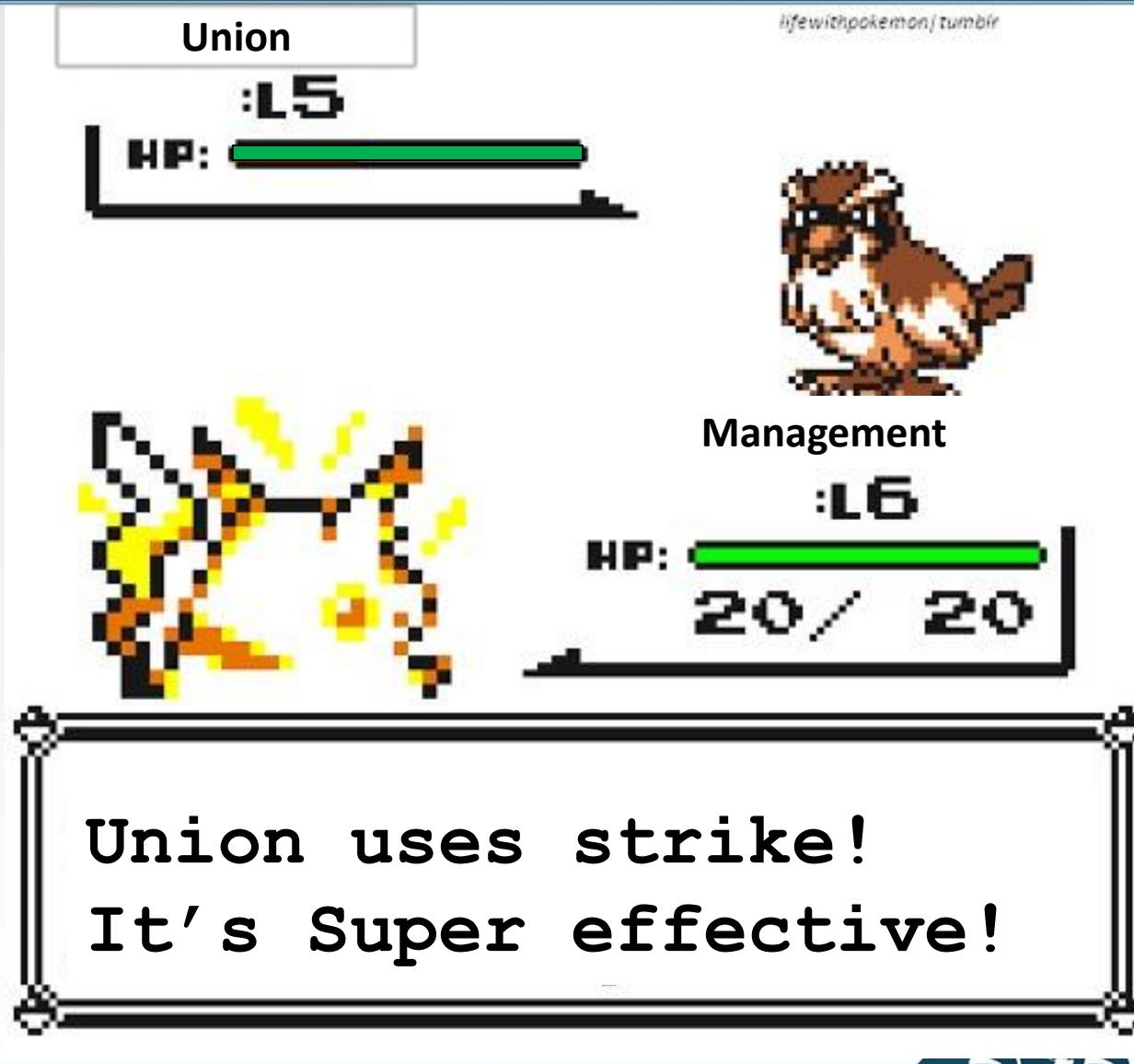
This prevents employees seeking employment elsewhere and non-negotiation

Employer Association Bargaining: Banding together with other small companies to become large enough to deal with a large union

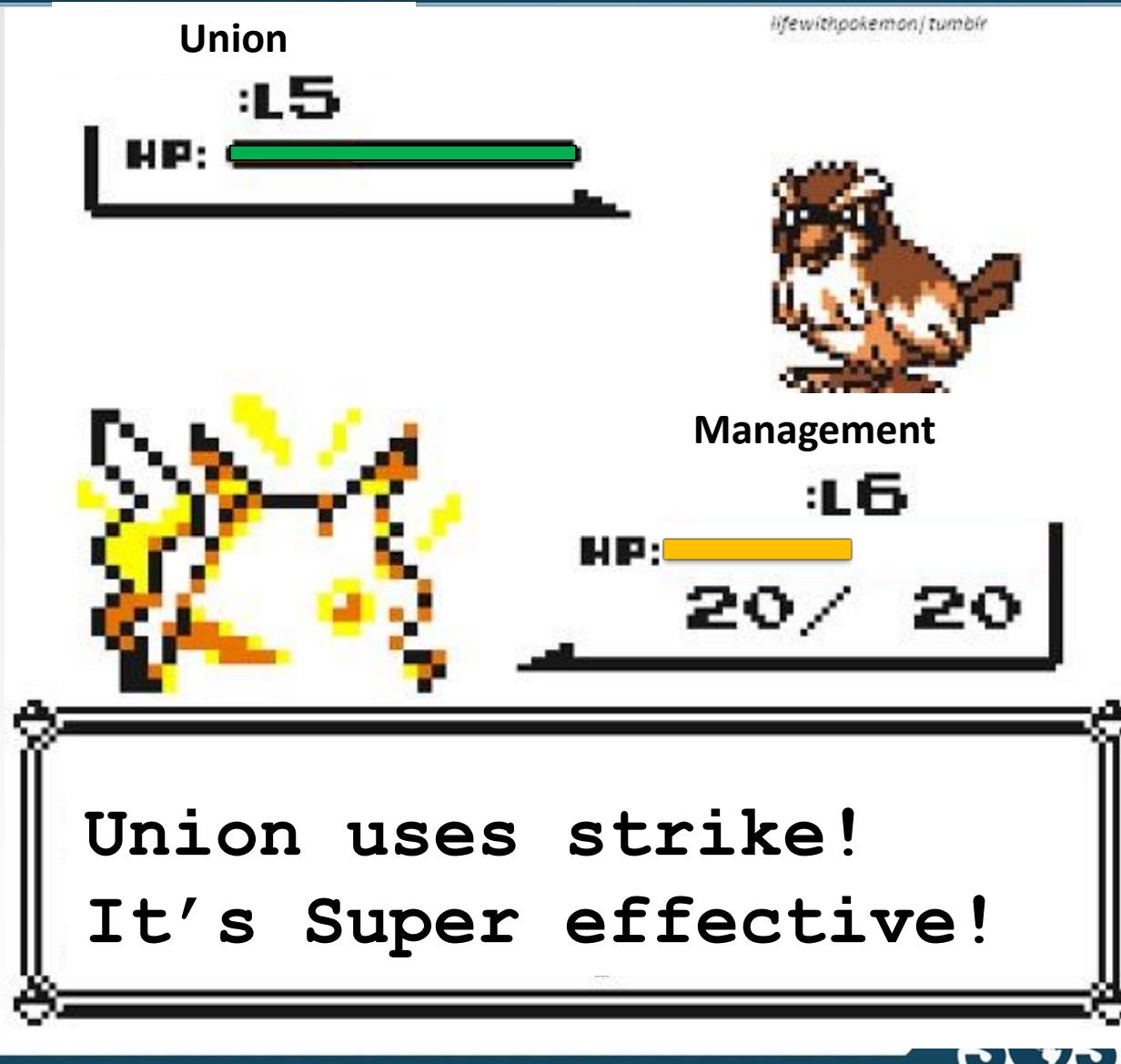
So how does this play out?



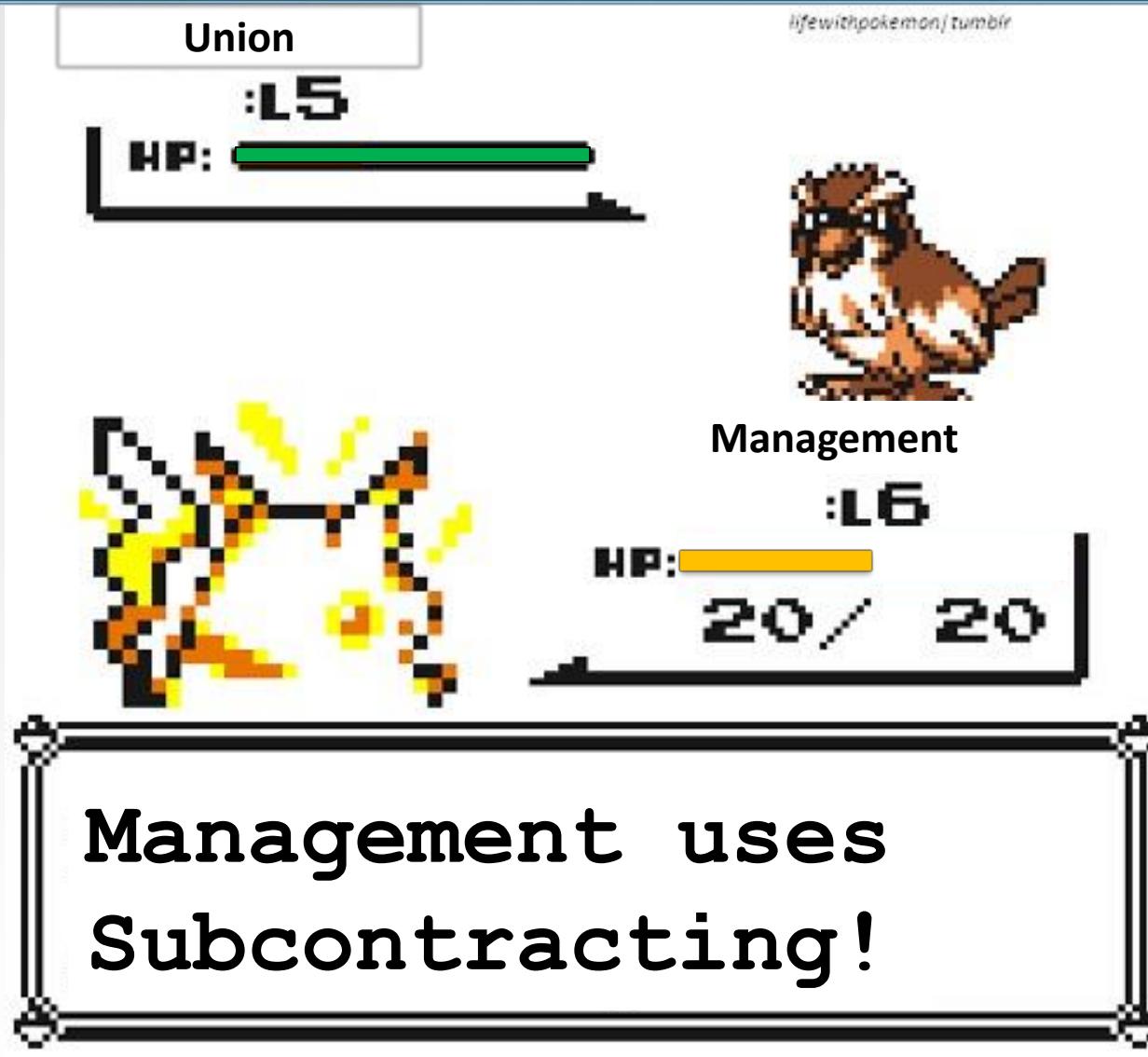
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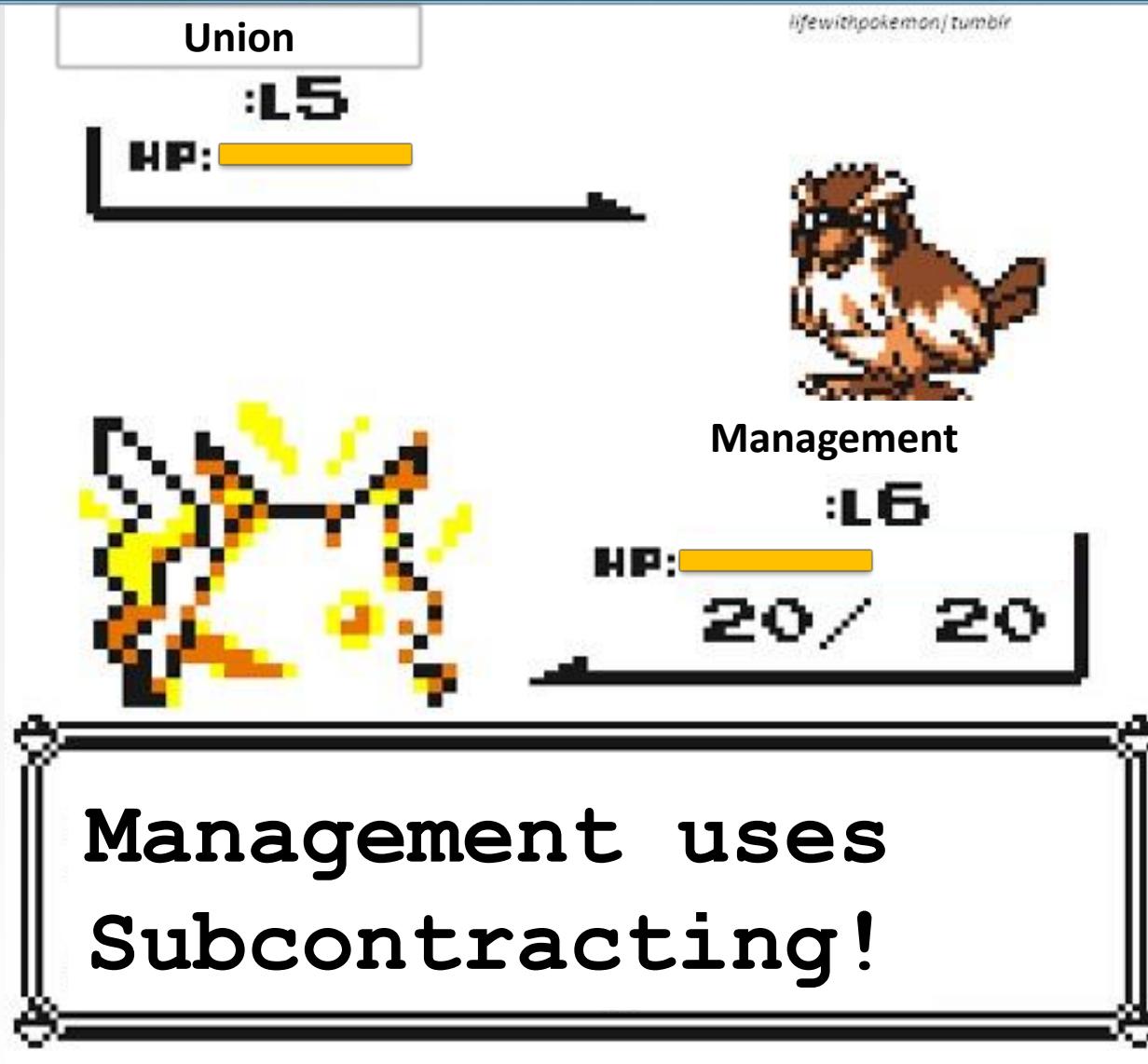
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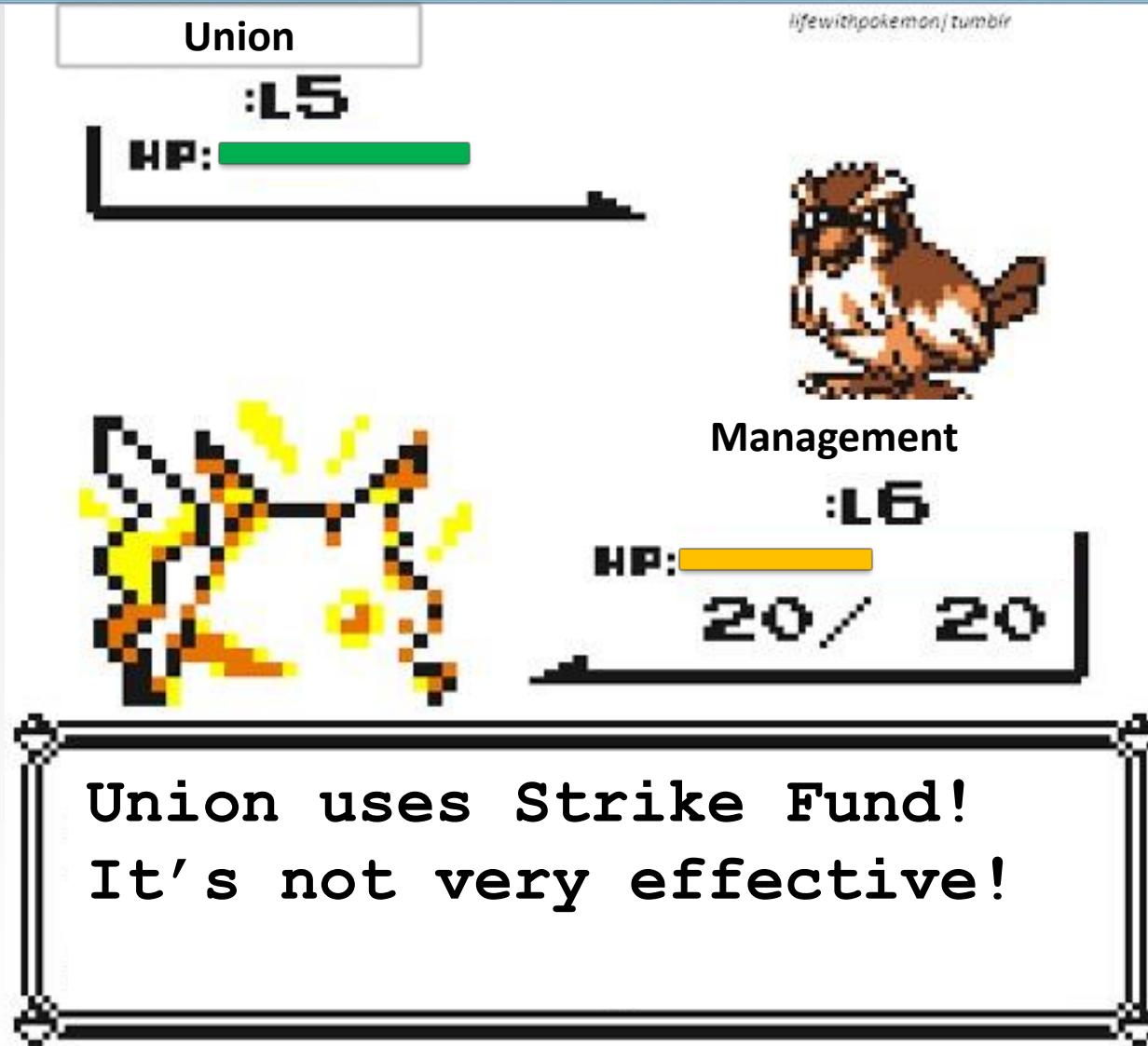
So how does this play out?



So how does this play out?



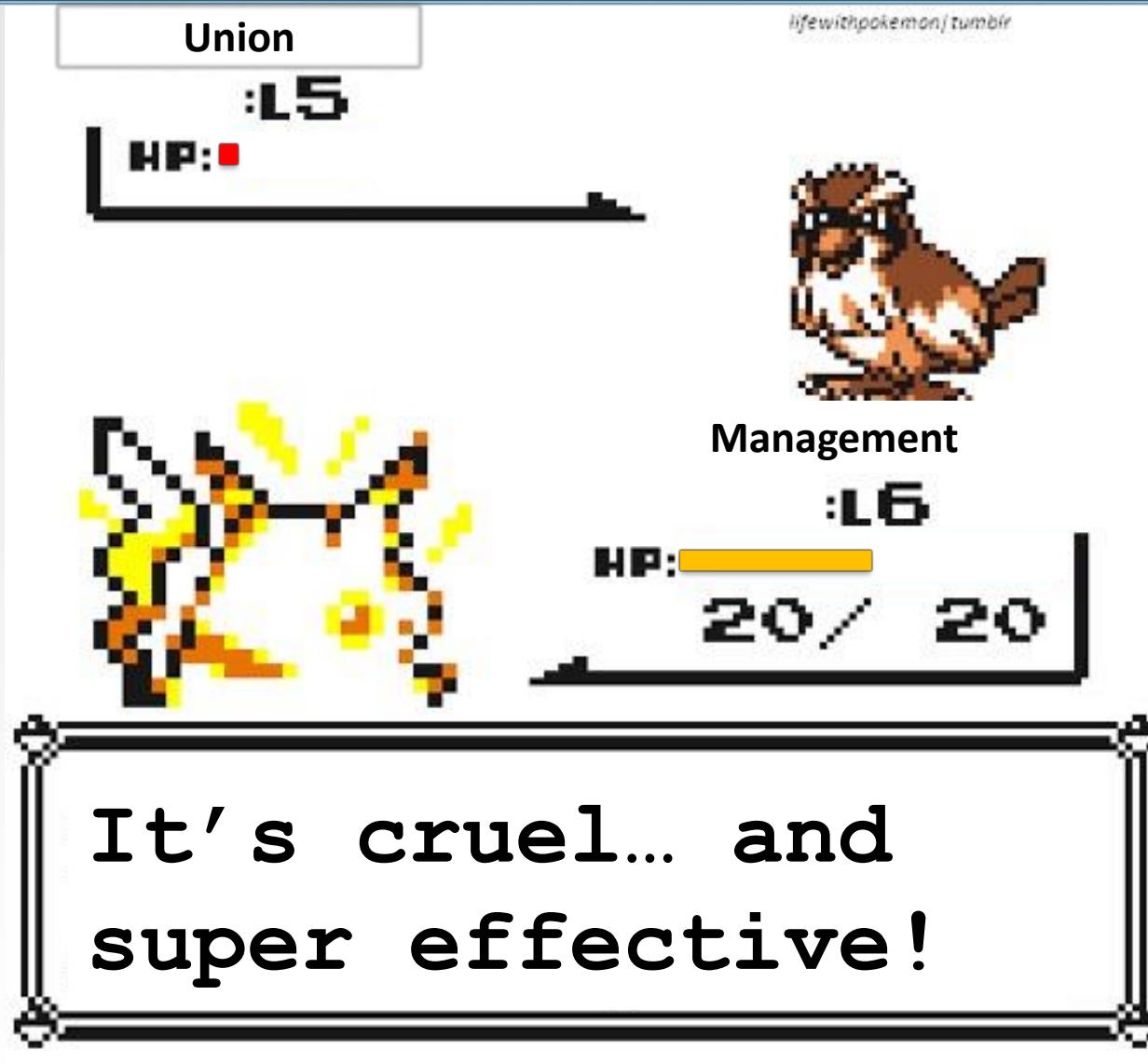
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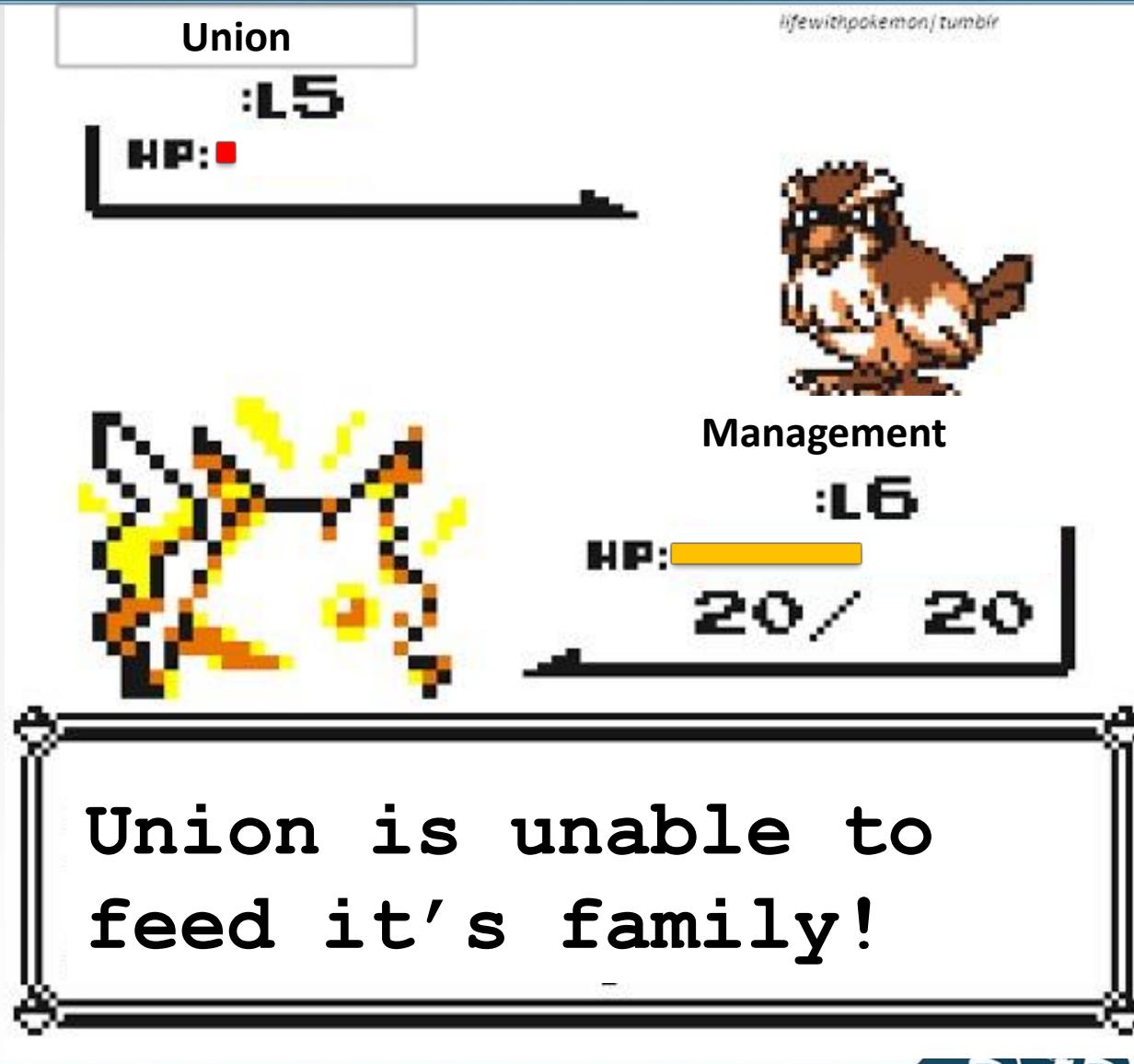
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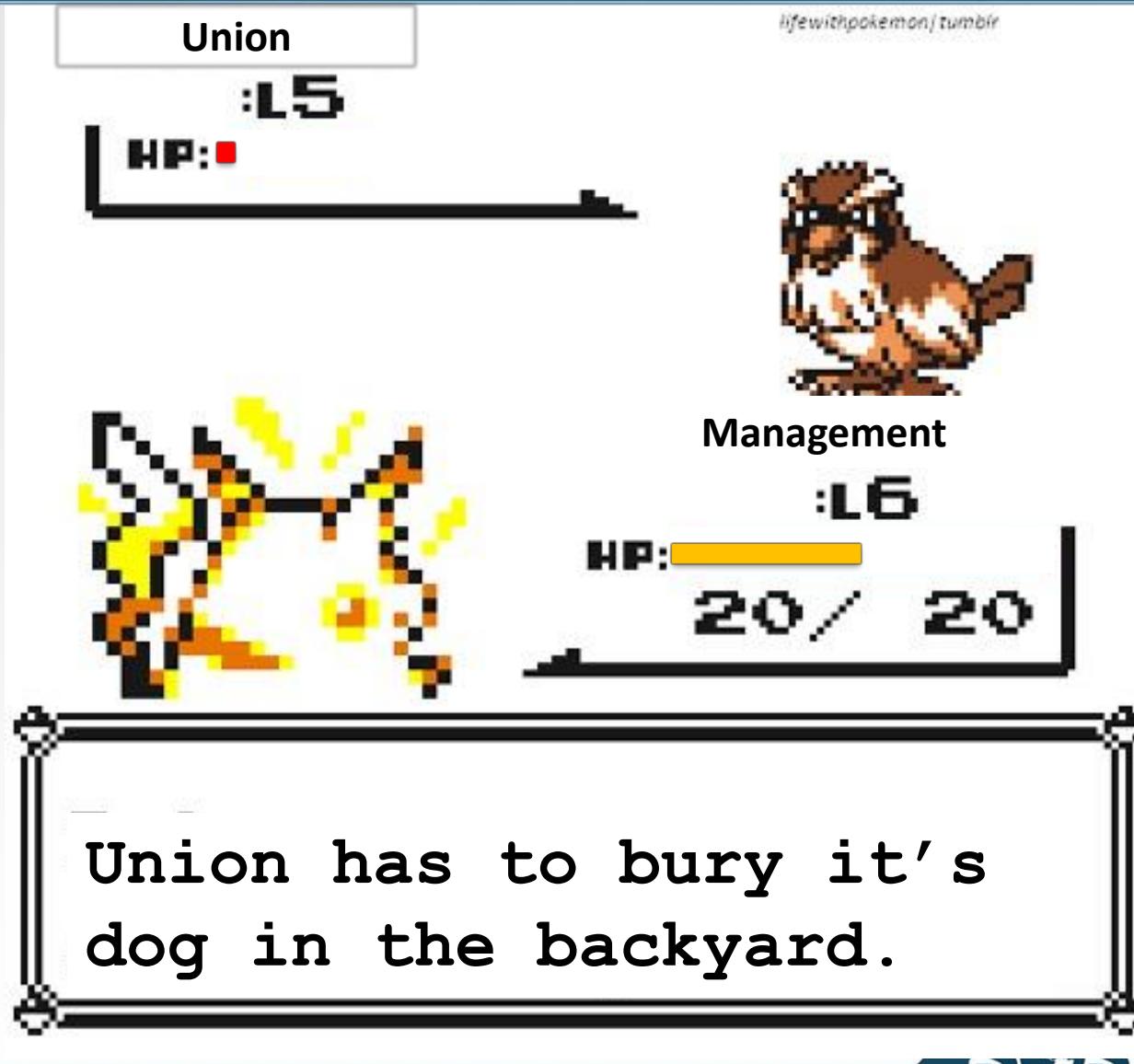
So how does this play out?



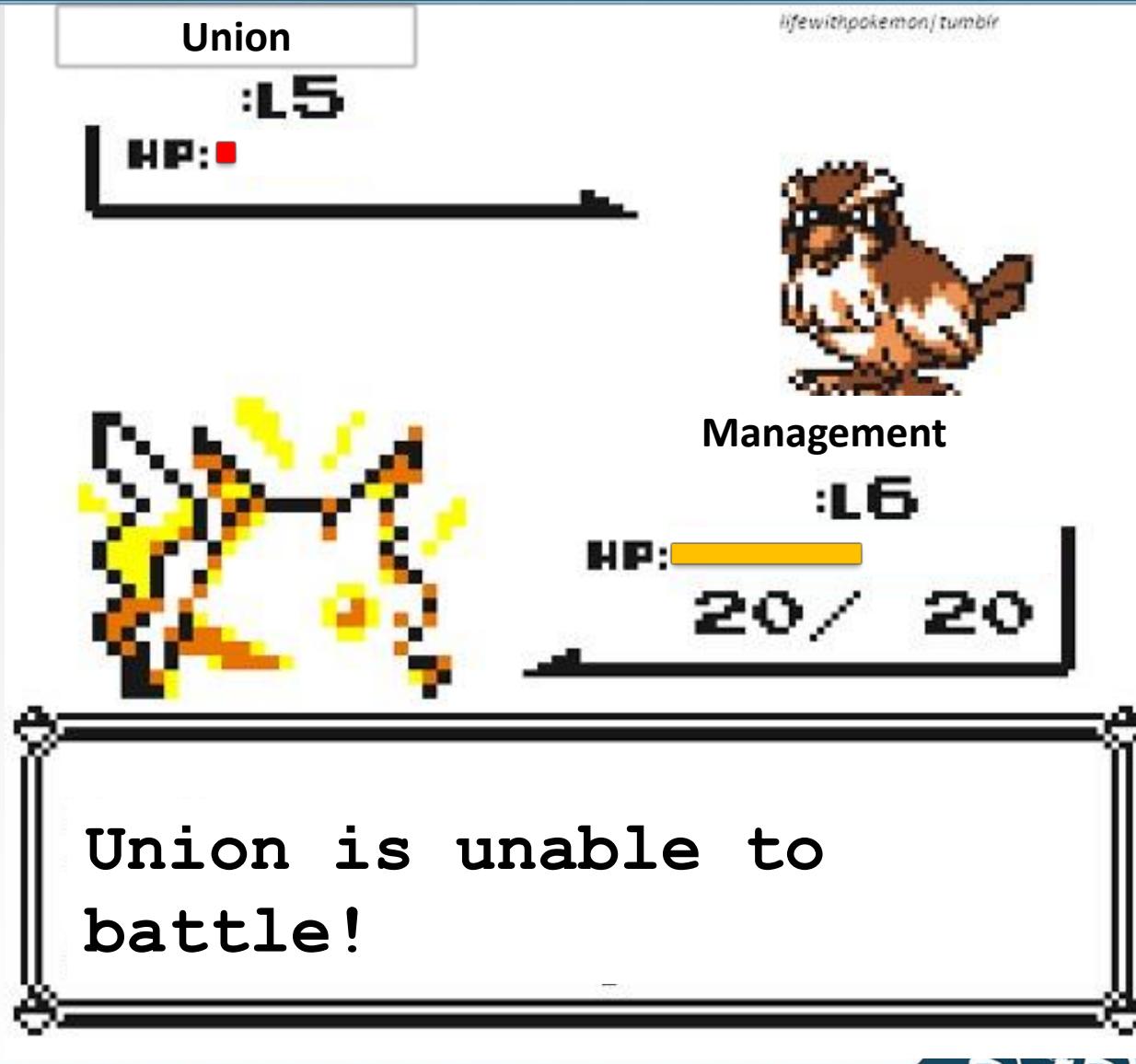
So how does this play out?



So how does this play out?



So how does this play out?



Types of Unions

| Type Of Union | Craft/Trade | Industrial |
|------------------------|--|--|
| Power | Creating a monopoly over a scarce resource -Some formal training required for craft/trade positions | Strength in numbers. Each worker is more easily replaced but an entire workforce is harder to replace. |
| Union Tactics | Withdraw: Literally just walk away because the skillset is rare enough. Try to get jobs elsewhere and use the picket line for spreading information. | The picket line represents a physical barrier. It's intimidating to try and return to work by crossing the picket line. |
| Management Tactics | Industry wide lockout. Try to prevent them from being able to work anywhere else. Requires coordination and motivation of other employers. | Withstand the strike. (Options detailed on earlier slide) |
| Strike Characteristics | Little violence (picket line is mainly informational) Settles Very quickly (Unions have a lot of power and there are financial burdens on both sides) | Since there is a true physical barrier and management is trying to wait them out, these often drag on longer and can get violent |



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Collective Bargaining: Union Certification

Voluntary Recognition

- Management chooses to recognize the union.
- More common with craft unions than industrial unions

Membership Drive

- Way of gathering evidence of support of the union
- Union can file an application when they have signatures from 40% of the proposed bargaining unit.
- The bargaining unit is the people the union will support not necessarily the future members of the union
- Reviewed by OLRB

Representation Vote

- Within 5 days of the application you must take a representation vote
- For the vote to pass you must have 50% +1 of those who vote.
- Management cannot exert *undue influence* over the vote. (Threats, Intimidation or Coercion)



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Contract Negotiations- Forms of Recognition/Union Security

Financial Security

Voluntary check -off of dues:

This is where union members remit some of their payment and the management sends it to the union

Rand Formula/Agency Shop:

This is where everyone in the bargaining unit, not just the union members, are remitting some of the pay and having it be sent.



Membership Security

Union Shop:

You don't have to be a union member to be employed, but you do have to join after a period of time.

Closed Shop:

You must be a member when you are hired.



Duration/Renewal & Seniority

Duration and Renewal:

Contracts have to be at least a year and once they have decided on a term it cannot usually be changed.

Seniority:

Usually employees get laid off in order of seniority. Union reps are given "super-seniority" even if they are more junior to avoid being without a union rep



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Contract Negotiations: Settlement

A contract must be ratified to be formalized.

- Ratification requires a secret ballot vote and 50% +1 acceptance

If there is agreement

- New contract starts at the end of the existing contract.
- If the existing contract is already up the contract starts retroactively

If there is no agreement

- Conciliation, Mediation & Arbitration



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Conciliation Mediation & Arbitration



TAs

Voluntary and Non-Binding in the same ways as above.

Unlike the above, does not impact the legality of a strike/lockout

May help avoid or end a strike/lockout



Profs

Conciliation

Voluntary: You ask someone to come in

Necessary: You cannot strike without going through conciliation

Non-Binding: You don't have to abide by what they say

Mediation

Voluntary or Compulsory: (can be both)

Binding: You do have to listen to what comes out of this.

Effectively ends a strike or a lockout



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Contract Administration

- Watch over each other to make sure living up to terms of agreement
- If not.. **Grievance Procedure**
 - Deals with when there is different perspectives and interpretations of contract
 - Procedure unique to contract but same elements
 - Statue of limitations: grieve within certain time frame of occurrence
 - Escalation of higher levels: People step in if you cannot agree/settle
 - Time limits: Each level has time limit to make agreement
 - Arbitration at end



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How Netflix Reinvented HR

Some key ideas and takeaways:

- Only hire ‘A’ people
- Understand the balance between common sense and policy; what situations actually require a policy, and when will the right people just do the right thing
 - “Act in Netflix’s best interests”
- Ensure that everyone understands how the business operates and what success looks like
- Act like an entrepreneur, not an HR executive

This summary does NOT replace reading the article!



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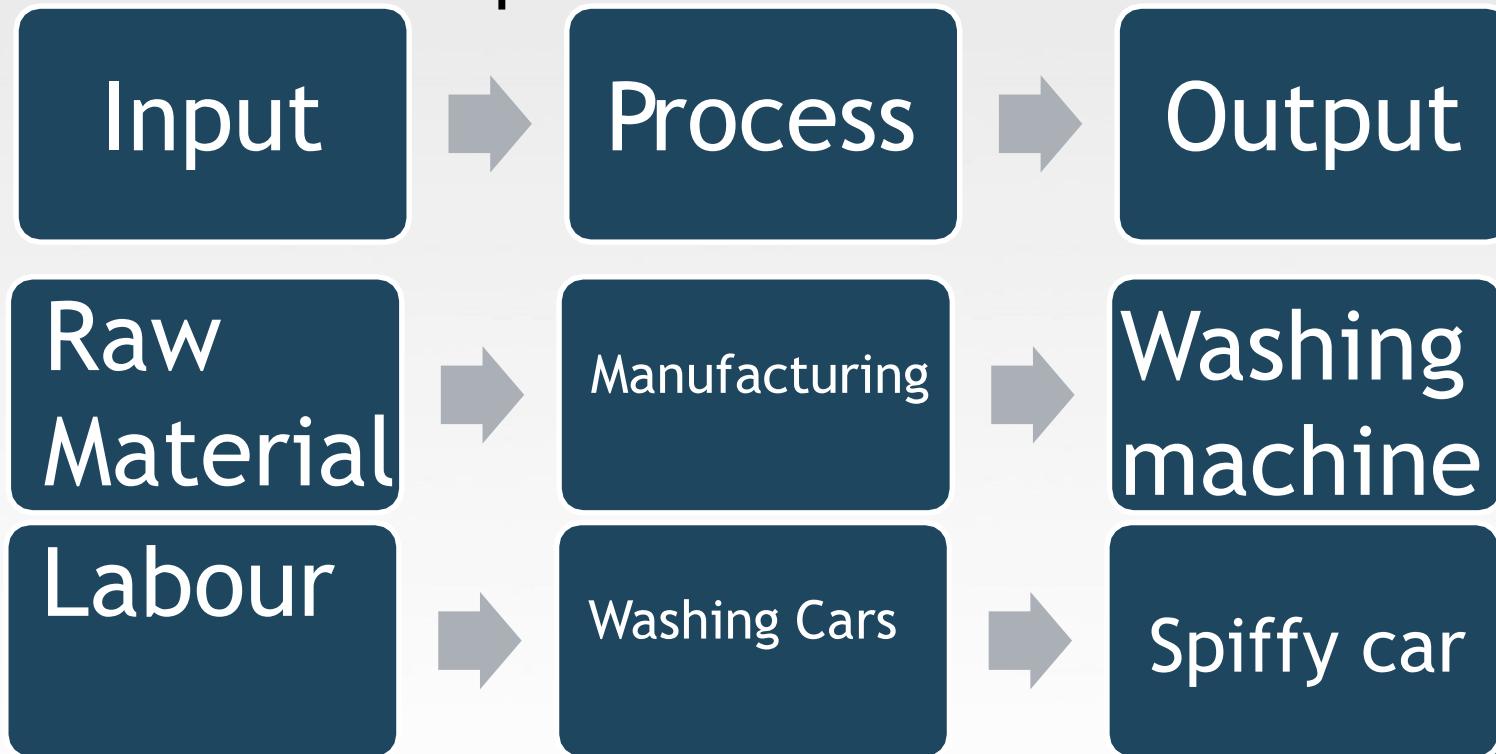
Operations

- **Critical success factor** → Provide quality goods/ services
- **Production:** creation of products and services by turning inputs into outputs which are products and services
 - Ex. Taking raw materials and turning it into a washing machine
- **Operations:** management of production processes

Service vs. Manufacturing

- Similarity

- Take inputs (factors of production) and convert them into outputs



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Service vs. Manufacturing

| Category | Service | Manufacturing |
|-----------------|---|--|
| Input | Person's unsatisfied need or possession in need of care Ex. Car Mechanic | Raw materials or natural resources Ex. Washing Machine |
| How it's done | Performed | Produced |
| Judged on | Quality of work as well as the service | Quality of the outcome |
| Customers' role | A part of the process Greater contact = greater impact | Removed from the process |
| Characteristic | Intangible, value the experience customized to each customer's needs | Tangible (can be stored) Can be customized or universal product |

Question this slide could answer:

“Explain 3 ways that a service is different from a product in its operations management.”

Implications for Operations

- Manufacturing
 - Set capacity ahead of demand
 - Expensive to add / sit idle
 - In short term turn away customers or outsource at lower margins - Pepsi contracts out when they can't meet demand
 - Seasonality
 - Shift demand and capacity requirements by pricing
- Services
 - High contact - set capacity to peak demand - restaurant
 - Low contact - set capacity to average demand - dry cleaning

Mass Production

- Manufacturing many identical goods at once
- Old style approach -> Ford Model T
- Stable market conditions are ideal
 - Needed since very little flexibility to make changes -> think about factors of production
- Efficiency vs. Effectiveness
 - Relies on standardization, mechanization and specialization
 - Focused on keeping low costs and how you produce not effectiveness and what you're producing -> focuses on achieving economies of scale
- Repetition
 - Simply repeat same production process over and over

“A customer can have a car painted any color he wants as long as it’s black.” – Henry Ford

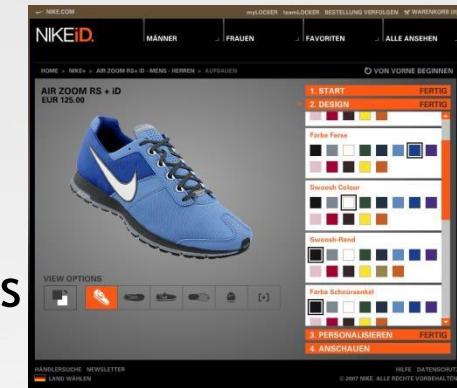
Economic reality: No longer most effective option since we live in a world where there is constant change and customers want products tailored to them



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Mass Customization

- Customization + mass production
- Use mass production techniques only to certain point
- Product or service then tailored to customer
 - Ex: NikeID
- Market is constantly changing
 - Flexible, allows production to meet market changes
- Customer driven
 - Focuses on effectiveness and what is produced
 - Customized to the tastes of customer - heterogeneous needs
- Marketing works closely to deliver changes in tastes
- Programmable robots make process efficient - inline with mass production ideologies



Short Answer Question

Explain two ways that Mass Customization is different from Mass Production.



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Sustainability

- **Sustainability:** development that meets present needs without impeding the ability of future generations to do the same
- Measured by triple bottom line
 - People/Planet/Profit
 - Exists a “sweet spot” where impact on profit, environment and society are balanced
 - Here there is no trade-off between profit and impact on the planet and people
 - The Value of Nothing - \$200 Hamburger - social and environmental



Sustainable Operations

- Ways to weave sustainability into operations:
 - Product design
 - “Cradle to Cradle” design
 - Biomimicry
 - Product Stewardship
 - Sustainability through servicing
 - Sustainability of the supply chain



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Cradle to Cradle Design

- More efficient use of ecosystem
- Based on design of nature's systems
 - “Waste equals food”
- Cradle to grave
 - Take resources, make product, throw it out
- Shift to reusing products when done! Closed loop system
- Biological Nutrients
 - By-products go back into soil
 - Ex: Sun chip biodegradable bag
- Technical Nutrients
 - Takes components, makes something new of EQUAL value
 - Ex: Nikes uses shoe parts make tennis courts, tracks, etc.



Biomimicry

- Sustainable innovation inspired by nature
- Not focused on what we can take from nature but what we can learn from it
- Examples
 - Improvements in wind turbines! Inspired by humpback whales!
 - Less painful needles! Inspired by mosquitos



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Product Stewardship

- Focus on impact during and after use (disposal)
- Extend producer responsibility to total life cycle of product
- Many companies take back products after use
- Ontario regulates companies to be stewards, better if companies wanted to take it upon themselves



Sustainability Through Servicing

- Making efficient and environmentally friendly products/processes are necessary but not sufficient
- Gains can be countered by increase in consumption
- Instead change business model from product to service
 - This gives competitive advantage because hard to imitate
 - Ex: XEROX! paper company to service that manages companies paperwork efficiently
 - It reduces demand for raw material

xerox



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Sustainability of Supply Chain

- **Supply chain:** Entire sequence of securing inputs, producing and delivering goods to customers. Done through network of facilities.
- Outsourcing business operations doesn't mean outsourcing responsibilities or risks
- If you outsource must consider how they operate and if it harms the environment
 - If you are sustainable and they are not, your whole operation is not sustainable
 - Key to brand integrity
- Ex: The Body shop- Community Fair Trade
- Ex: Timberland considers carbon impact of every step



Greenwashing

- Misleading customers to think your company acts sustainably or misleading them on the environmental benefits of using a product or service



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7 Sins of Greenwashing

1. Sin of Hidden Trade-off: suggest product is green based on single attribute, no attention to other issues - ex. Paper from sustainably harvested forest
2. Sin of No Proof: Failing to support a claim with easily accessible info or 3rd party certification
 - Harder today because more 3rd party certifiers - ex. Toilet paper that comes from post-consumer recycled content
3. Sin of Vagueness: A claim that is so poorly defined or broad that its real meaning is likely to be misunderstood by the consumer
 - Ex: “We are all-natural” - Arsenic, uranium and mercury are all naturally occurring, but poisonous...



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7 Sins of Greenwashing

4. Sin of Lesser of Two Evils: put some type of environmental claim on a product category that is inherently bad
 - Ex: Fuel efficient SUV, organic cigarettes
5. Sin of Irrelevance: Making claim that may be truthful, but is unimportant/not helpful when seeking environmentally friendly products
 - Ex: CFC free, but CFC's banned decades ago
6. Sin of Fibbing: False claim - ex. "Energy Star certified"
7. Sin of Worshipping False labels: A product that, through either words or images, gives the impression of third-party endorsement where no such endorsement exists; fake labels, in other words.

Last Minute Tips

- The problems are worth about 20% of your exam grade
 - Do not waste all of your time if you are stuck on something
 - Know the formats of the cash burn/build and cash budget
 - Double check your answers for silly errors after you have finished
- Always look back and see if you hit all the “sub-questions” in the question (I.e. identify_____, discuss_____, and compare_____)
- Predict the questions and practice the answers
 - Look carefully at your notes, think back to lectures, and READ the REVIEW GUIDE (it is a gift!)
- Focus on facts and keywords
 - Emphasize them in your study notes
- Give full answers
 - This does not mean long sentences with little content. Stick to the point, and cover ALL of that point.



123
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THANK YOU!!

Best of luck on ALL your final exams!

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