



**TTC - MESTRADO EM MICROBIOLOGIA APLICADA**

**IE - MESTRADO EM MATEMÁTICA APLICADA ECONOMIA & GESTÃO**

**ITT - ENGENHARIA BIOMÉDICA E BIOFÍSICA**

**IE - OPCIONAL PARA 2º CICLO**

**FCUL – 2017/2018**

**AULA 2  
26 FEVEREIRO 2018**

# Summary

- ◉ Gestão de expectativas
- ◉ Emprego versus negócio.
- ◉ Empreendedorismo versus TTC. Inovação Versus Empreender
- ◉ A valorização económica do conhecimento técnico-científico.
- ◉ A indústria versus a Universidade.
- ◉ Conceitos e definições base.
- ◉ Ferramentas de gestão e técnico-científicas.
- ◉ Soft skills e vantagem no mercado actual.

# WHAT YOUR COLLEAGUES HAVE TO SAY ABOUT THIS

*“This course motivated me to think about my future career and the importance of the start ups. I think that the course was one of the best courses I ever had in my education history. It opened my mind and helped me to developed my soft skills which will be more helpful in my future life than "dry" academic knowledge.”* Erasmus Student, IE 2016

*“I found this subject the most important of all. Doesn't matter what you study, all of us should complete this subject. The passion of the teacher Is very helpful and motivating. I guess (...) we should have had more meetings with successful entrepreneurs (...). Good job!”*  
Erasmus Student, ITT 2016

# WHAT YOUR COLLEAGUES HAVE TO SAY ABOUT THIS

*“Esta disciplina do ponto de vista curricular é um achado. Apesar de dar muito trabalho, acho que estimula o desenvolvimento de capacidades fundamentais e que irão fazer toda a diferença no futuro profissional. Abre os nossos horizontes para a inovação e o empreendedorismo, estimulando a criatividade num ambiente descontraído. Graças ao constante feedback construtivo da professora, isto permite que os alunos percebam onde devem e como podem melhorar. Durante semanas de testes e relatórios, uma pessoa habitua-se a arranjar tempo para treinar para uma apresentação e um projeto de IETT o que permite exercitar time management e organização.”* Master Student, IETT 2017/2018

*“Adorei, acho que isto é muito mais do que uma cadeira, é uma experiência, Obrigada!”* PhD Student, Empreendedorismo 2016

# PRECONCEIVED IDEAS

- ⦿ We all have them!
- ⦿ Are they any useful?

“Don’t have any preconceived ideas about anything. Life is not predictable and anything imaginable is possible. Dare to imagine, dare to dream and then dare to put in the hard work to enjoy the process of making reality happen.”

Chan Hon Goh, former  
ballerina

**TRUTH ONLY REVEALS  
ITSELF WHEN ONE  
GIVES UP ALL  
PRECONCEIVED IDEAS**

SHOSEKI

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PICTUREQUOTES.COM

1<sup>st</sup> Preconceived idea

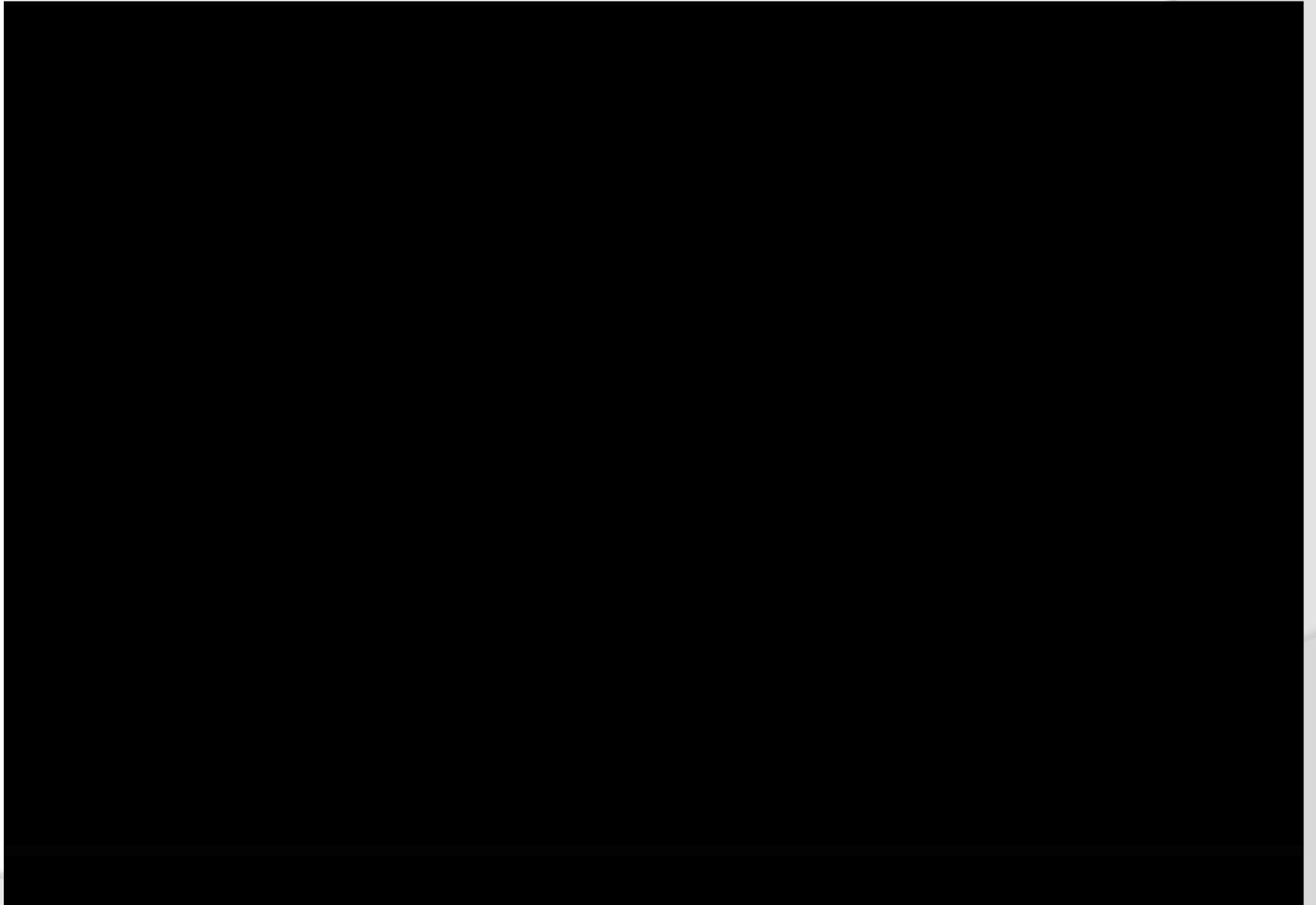
**A job is better than starting  
my business**



# Job Vs Business

- ◎ Someone (employee) that delivers services to another one, either a physical or legal one (employer), in a subordinated way, on a personal basis, recurrently and paid for.

# Job Vs Business



# Job Vs Business

## ◎ WHY?

- Levels of Comfort zones (are they really comfortable?)
  - Financial?
  - Structural?
  - Others? Time management?
- What are we missing?
  - Fast learning track
  - Impact
  - Power to decide our lives

2<sup>nd</sup> Preconceived idea

**Entrepreneurship is not for  
me!**

**ENTREPRENEURSHIP**

**WHAT IS IT TO YOU?**

# ENTREPRENEURSHIP

# Entrepreneurship

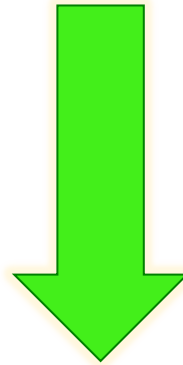
- ◎ *Entrepreneurship* is the practice of starting new organizations or revitalizing mature organizations, particularly new businesses generally in response to identified opportunities. Entrepreneurship is often a difficult undertaking, as a vast majority of new businesses fail. Entrepreneurial activities are substantially different depending on the type of organization that is being started. Entrepreneurship ranges in scale from solo projects (even involving the entrepreneur only part-time) to major undertakings creating many job opportunities

(source: wikipedia)

- ◎ **Entrepreneur**: the art of taking something at risk

# Entrepreneurship

- ◎ *Entrepreneurship* – the pursuit of opportunity beyond the resources one currently has under control (source: Berkley, 2006)



Management process NOT only an individual characteristic



# The Process of Entrepreneurship

## *Identify*

*Need*

*Solution*

*Unfair advantage*



*Opportunity*

## *Acquire*

*Technology rights*

*People*

*Money*



*Resources*

# ENTREPRENEURSHIP

DO WE NEED SPECIAL  
PERSONALITY TRAITS?

OR

CAN THEY BE DEVELOPED?

# Entrepreneurs



# ENTREPRENEURSHIP

CAN YOU NAME YOUR  
FAVOURITE ENTREPRENEUR?

# TYPES OF ENTREPRENEURSHIP

- ◉ INTRAPRENEURSHIP



- ◉ ECONOMIC



- ◉ SOCIAL



3<sup>rd</sup> Preconceived idea

**Startups are small companies**

# STARTUP Vs SME

- ① Are they the same?
- ① Is a Startup a company?

# Small Business'

vs.

# Start-Ups

## Small Business'



Permanently established.



Successful business model.



Long-term potential for success.



More traditional methods, take less risk.



Long-term potential for success.

## Start-Ups



Incredibly risky.



In search of a unique and profitable business model.



Temporary nature.



Extremely innovative.



Non-traditional financial methods and strategy.



# STARTUPS VS SMES

	Startups	Traditional SMEs
<i>Geographic outlook</i>	Global	Local
<i>Business model</i>	Innovative solution with IP component	Traditional solution
<i>Scalability</i>	High	Limited
<i>Economic benefit</i>	Potentially significant	Incremental
<i>Growth rate</i>	Fast	Gradual
<i>Short-term objective</i>	<ul style="list-style-type: none"><li>- product to market asap</li><li>- secure next round funding</li></ul>	Profitability

4<sup>th</sup> Preconceived idea

**Innovation is just a fancy name!**

# INNOVATION

## INVENTION

+

## EXPLOITATION

=



# INNOVATOR + ENTREPRENEUR

# INNOVATION

More detail to come next  
week!

5<sup>th</sup> Preconceived idea

**Technology transfer is a cool  
technology!**

# Technology Transfer

- ◎ *Technology transfer* is the process of sharing skills, knowledge, technologies, methods of manufacturing, samples of manufacturing and facilities among governments and other institutions to ensure that scientific and technological developments are accessible to a wider range of users who can then further develop and exploit the technology into new products, processes, applications, materials or services.

# Technology Transfer

- ⦿ Can be done in different formats/values
  - Entrepreneurial (Economic Valorization)
  - Altruist (Scientific Dissemination of Knowledge)



How Should we (Must we) see Science?



# Technology Transfer



# Technology Transfer

## TTO FUNCTIONS:

- ① Coordinate
- ① Nurture
- ① Link

# Technology Transfer

## Constituents of Technology Transfer Processes

1. **Technology Transfer**
2. **Technology Promotion**
3. **Technology Deployment**
4. **Technology Innovation**
5. **Technology Development**
6. **Technology Research**
7. **Technology Assessment**
8. **Technology Information and communication**
9. **Technology Investment**
10. **Technology Collaboration**
11. **Technology Commercialization**

# Does knowledge have an economic value?

- ◎ K2B, I-Teams, BioTeams.....
- ◎ Why?
- ◎ Option or Duty?
- ◎ What tools are we missing?

# TOOLS WE NEED TO VALUE K

- ⦿ Management
- ⦿ Technical/Scientific
- ⦿ Other?
  - Atitude?
  - Soft Skills?
  - Critical analysis?
  - Negotiation SKills?
  - IP?

6<sup>th</sup> Preconceived idea

**Industry & Academia are 2 worlds  
apart!**

# Industry Vs University

- ⦿ 2 worlds apart?
- ⦿ Rythm?
- ⦿ Focus?
- ⦿ Competencies?

7<sup>th</sup> Preconceived idea

**I have all I can when I finish my degree!**



# CAREERS

**CAREER PATHWAYS** Building a database of possibilities **p.647**

**GRANTS** Agency limits awards for the well-funded **p.647**

**NATUREJOBS** For the latest career listings and advice [www.naturejobs.com](http://www.naturejobs.com)

ANDREW DAVENGETTY



CAREER COUNSELLING

## Pick a path

other jobs are available and how to get them. Career-guidance sources range from faculty mentors, advisers and other informal support to university-based counselling offices, postdoctoral offices and paid career coaches such as Edwards. But all have pros and cons (see 'Career counsellors'). Faculty mentors are well acquainted with the scientists they mentor and the research that their protégés conduct, but are likely to know a lot less about the workforce. And although counselling offices and coaches are tightly focused on the job-search process, the offices often have limited resources, and coaching fees can be out of reach for junior scientists who have little cash to spare. It is difficult to decide which route to pursue, but career-guidance professionals in all arenas warn that young researchers today need support and advice no matter its source.

It is tough for some early-stage scientists to accept that they should get help in creating and implementing a career-development strategy, says Janet Metcalfe, head of the international career-development programme Vitae in Cambridge, UK. "We still find it very difficult to get postgrads to get professional careers advice," she says, and she thinks that the reason is mainly emotional. "By going for careers advice, they are acknowledging that they may not get into an academic career."

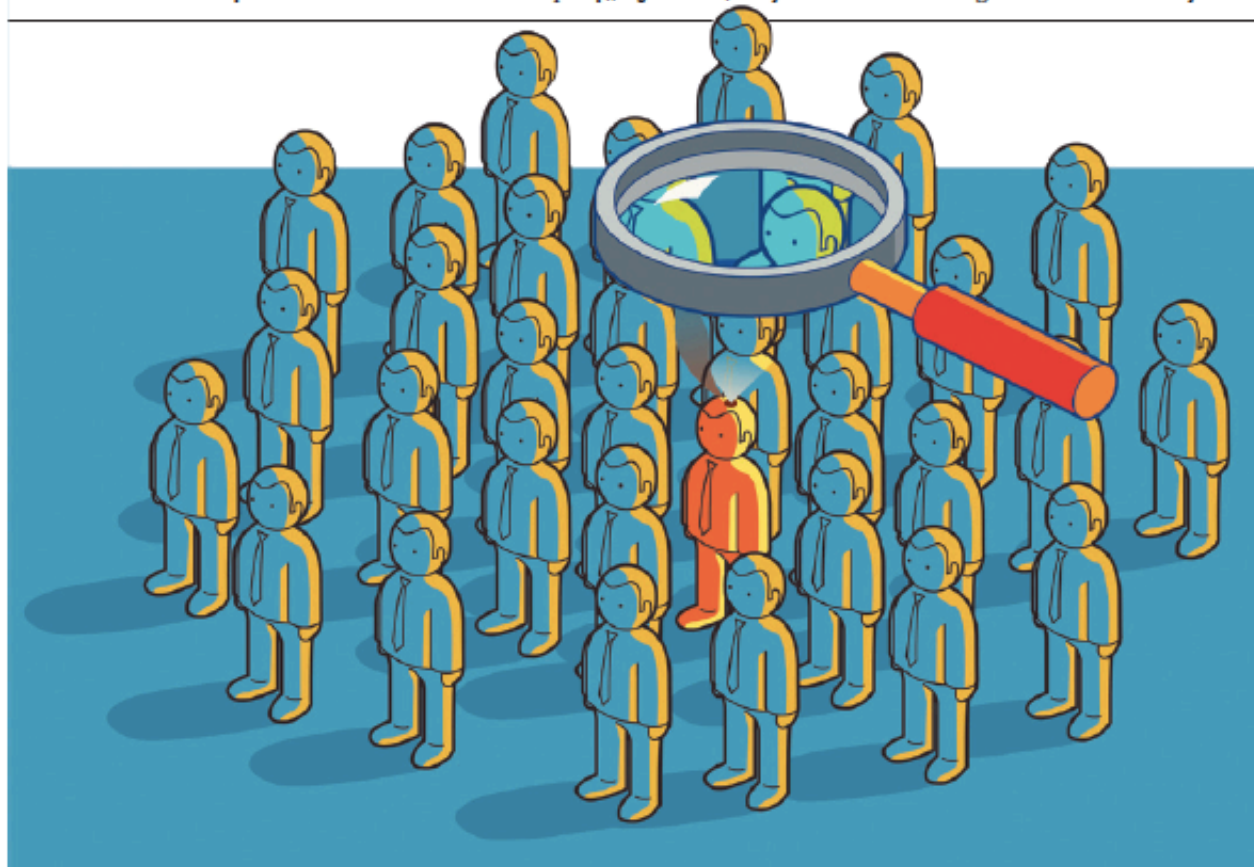
A survey that Vitae published in 2013 found that about four-fifths of postdocs aspire to a job in academia and that three-fifths expect one, but Metcalfe says that only about one-fifth wind up there. Vitae estimates that there are

# CAREERS

**COLUMN** Academia is the new 'alternative' for life-science careers **p.256**

**NATURE JOBS BLOG** The latest science-careers news and tips <http://blogs.nature.com/naturejobs>

**NATURE JOBS** For the latest career listings and advice [www.naturejobs.com](http://www.naturejobs.com)



EMPLOYMENT

## PhD overdrive

*An excess of graduates means that job-seekers need to be versatile.*

NATURE, Vol. 511, 10<sup>th</sup> July 2014

**SOFT SKILLS = SMART SKILLS**

**YOU HAVE A PROBLEM:  
TECHNICAL COMPETENCES DO  
NOT LAND YOU A JOB OR  
GUARANTEE SUCCESS!**



**Alex McClafferty**  
Contributor

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*I cover the process of success, entrepreneurship and public speaking.*

[full bio](#) →

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ENTREPRENEURS 10/21/2014 @ 6:00AM | 19,932 views

## 6 Soft Skills That Guarantee Your Success

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I failed 'Introduction to Java' in my first year of college and gave up software engineering for good.

In spite of this, I co-founded a successful [WordPress support](#) service.

Three things have helped me succeed as a first-time entrepreneur. The first is luck and the second is my co-founder, Dan. The third?

*Soft skills.*

In this post, I'll outline six soft skills that will help you succeed as an entrepreneur, why they matter and where you can learn more about each skill.



## A importância das soft skills na vida profissional

**A progressão profissional depende cada vez mais das designadas soft skills**

*Versão para imprimir*

Dinheiro Vivo | 16/02/2015 | 11:12

Desde a última frase dos anos 90 "Hire on attitude, train on skills" (recrute com base em atitudes [soft skills] e forme nas competências [técnicas]) que se vem falando da importância das designadas soft skills ou attitude traits (traços de atitude) na gestão da carreira.

São designadas de soft skills as competências não técnicas como a capacidade de comunicação, de criação de empatia e confiança com as pessoas, capacidade de resiliência ou de trabalho em ambiente de incerteza. A atual fase de recrutamento dos anos 90 está relacionada com o facto de ser mais simples formar as pessoas dentro das empresas nas competências técnicas, do que faz-lo nas competências atitudinais, e isto porque estas últimas dependem de diversos fatores tais como maturidade, inteligência emocional, experiências de vida, história familiar.

Ou seja, estas competências estão enraizadas no indivíduo, afetam toda a sua vida quer no âmbito pessoal ou profissional, e são desta forma mais resistentes à mudança pois são padrões, traços da nossa personalidade que foram sendo aprendidos e cristalizados ao longo de anos. Por vezes a sua origem remonta a definições que foram criadas face a ambientes familiares hostis ou situações concretas decorridas na infância, sendo hoje utilizadas de forma inconsciente.

A vida atual nas empresas decorre a um ritmo frenético, num ambiente de constante mudança, tornando ainda mais vitais estes traços. Desta forma, não sendo novo o tema, ele é cada vez mais pertinente. O planeamento a longo prazo deu lugar à necessidade de reinvenção constante, ao uso da criatividade diariamente, à total interdependência e conectividade das pessoas.

A alteração ou trabalho ao nível das soft skills apresenta um nível de dificuldade superior aos das características técnicas, mas não é impossível. Engloba uma fase inicial de tomada de consciência das atitudes a desenvolver, a definição de um plano de ação e o uso de determinação na prossecução diária dos objetivos. O apoio profissional (através por exemplo de sessões de coaching) é determinante sobretudo para a tomada de consciência e identificação do plano de ação.

Por Luísa Aguiar, Professora do The Lisbon MBA

**HOW TO:** Quit Trying to Make Everyone on Your Team an Entrepreneur

© 4 min read

# 10 Toxic Words You Must Not Say in a Job Interview



Image credit: What What I Flickr

## BERNARD MARR

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FEBRUARY 12, 2015

*LinkedIn Influencer, [Bernard Marr](#), published this post originally on [LinkedIn](#).*



# SOFT SKILLS = SMART SKILLS

Major skills employers look for/successful people have:

1. Know how & technical competencies (25%)
2. Project management skills (23%)
3. Top verbal and written communication(15%)
4. Organizational skills (14%)
5. Interpersonal relationship skills (13%)
6. Resilience

# SOFT SKILLS = SMART SKILLS

1. Written Communication K2B e SWOT
2. Verbal Communication K2B, Pitches & Cases
3. Different languages TTC/IE
4. Management by goals TTC/IE
5. Emotional Intelligence & Conflict management K2B
6. Entrepreneurship & Failure management TTC/IE
7. Leadership and Team management K2B
8. Critical analysis Case Studies
9. Negotiation Skills TTC/IE, K2B, Cases
10. Innovation & continuous learning TTC/IE
11. Knowledge management TTC/IE



# SOFT SKILLS = SMART SKILLS

THIS IS WHY WE WILL PUSH YOU OUT  
OF THE BOX, OUT OF YOUR CONFORT  
ZONE!

**LEARNING BEGINS WHEN YOU FEEL  
UNCOMFORTABLE...**

# Think Different

