Skills & Competences for the FS&T of the Future

Dr. Katherine Flynn,
European Association for Food Safety, SAFE consortium

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The European Association for Food Safety

www.safeconsortium.org

A non-profit, non-governmental international organisation since 2002
ISEKI_Food 4

Towards the innovation of the food chain through innovation of education in Food Studies

(Work Package 3: New Skills for New Jobs)
FS&T EMPLOYERS WANT MANY AND DIVERSE SKILLS

« Food » or « Technical » Skills

Product Development

Research

Research & Development

Food Legislation & Control

Food Safety Management, Hygiene & Control

Quality Management, Assurance & Control

Food Quality & Food Safety
FS&T EMPLOYERS WANT MANY AND DIVERSE SKILLS

- « Soft » Skills
  - Being Responsible
  - Positive Attitudes & Behaviours
  - Thinking & Solving Problems
  - Working with Others
  - Communicating

- « Enabling » Skills
- « Generic » Skills
- « Emotional Intelligence »

Personal Management

Fundamental
315 employers of FS&Ts came up with over 3000 ideas for Ideal Employee Skills

From a list of 68 skills from Knowledge and Skills Requirements for Careers in the Food Industry (Ho, Lindbom, & Wahnström, 2011)
Ideal skills for European food scientists and technologists: Identifying the most desired knowledge, skills and competencies

Katherine Flynn \(^a\), Erik Wahnström \(^b\), Mona Popa \(^c\), Barbara Ruiz-Bejarano \(^d\), Mafalda A.C. Quintas \(^e\)

\(^a\) The European Association for Food Safety, ‘SAFE consortium’, Rue Vanderborght, 20, 1081 Brussels Belgium
\(^b\) SIK, The Swedish Institute for Food and Biotechnology, Box 5401, SE-402 29 Gothenburg Sweden
\(^c\) University of Agronomic Sciences and Veterinary Medicine Bucharest, 59 Marasti Blvd., 011464 Bucharest 1 Romania
\(^d\) AINIA Centro Tecnológico, Benjamin Franklin, 5–11, 46980 Paterna, Spain
\(^e\) CBQF/Escola Superior de Biotecnologia, Rua Dr Antonio Bernardino de Almeida, 4200-072 Porto Portugal
QUESTIONNAIRE TO:
CURRENTLY EMPLOYED FS&Ts

Identifying Tomorrow’s Food Scientist & Technologist

“How important will ______ be for your job in the years to come?”

• Rate the importance on a Scale of 1 to 5, « Likert » scale
• Open ended questions

VISIT THE LIVE QUESTIONNAIRE HERE
From 9 May 2012 through 15 May 2013, 227 questionnaires

<table>
<thead>
<tr>
<th>Country</th>
<th>No. Of Responses</th>
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<td>Greece</td>
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<tr>
<td>21 countries</td>
<td>Under 10</td>
</tr>
</tbody>
</table>
Place of Work:
- Academia/Research: 131
- Industry: 79
- Other: 17

Level of Job Responsibility:
- High: 72
- Low: 104
- Mid: 47
- Not Specified: 4
Per cent who said these will be Very Important skills for my job in the future:

- Thinking & Solving Problems
- Being Responsible
- Working with Others
- Communication
- Positive Attitude
- Food Safety
- Product Development
- Research
- Quality Mgmt
- Food Legislation

n=227
Most important Skills

Rasch analysis for Categorical data

Standardized t-statistic

95%

Likelihood to be chosen as Very Important

More likely

Less likely

Item measures (logits)
Thinking & Solving Problems and Being Responsible are significantly more important than all other skills.
Is there another Technical Skill that you think will be important?

43 of 227, 19%, said « yes »

Think for innovation

Efficiency and waste management

Statistics, Intellectual Property Rights, Predictive Modelling

nutritional analyses

Sensory analysis/ acceptability test

health issues, biomedice, biofunctionality

informations and educational the consumers

STATISTIC ANALYSIS
Is there another Soft Skill that you think will be important?

36 of 227, 16%, said «yes»

- Enthusiasm, Loyalty and a desire to succeed
- Being patient
- Working with other professionals
- Taking Initiatives
- Project management, Negotiation skills
- Multitask
- Teaching and training skills
- Crisis management
- Advanced IT, data handling and analysis
- Science communication to food consumers
Who is your current employer?

Industry (n=79)

Academia (n=131)

Other (n=31)
What is your current level of job responsibility?

- High Responsibility (n=74)
- Mid Responsibility (n=106)
- Low Responsibility (n=47)
Soft Skills will be important *for my job* in the years to come more so than will Food Skills

*In industry and academia*

*At all levels of job responsibility*

• **The most important Soft Skills will be**
  – *Thinking and Solving Problems* and *Being Responsible* will be more important than *Communicating, Working with Others, Having a Positive Attitude* AND all Food Skills

• **Among Food Skills**
  – *Food Safety* will be more important than *Food Legislation and Quality Management*
What do FS&T employers think about skills of their FS&Ts?

- 2556 Soft Skills
- 792 Food Sector Skills

315 FS&T employers
3048 Ideas of Ideal FS&T Skills
Both FS&T employers and FS&T employees appear to value SOFT SKILLS more than TECHNICAL SKILLS.
Which soft skills do FS&Ts think will be most important?

- Thinking & Solving Problems
- Being Responsible
- Working with Others
- Communication
- Positive Attitude

> 70%
Which Soft Skills do employers think are most important?

- Communicating
- Thinking & Solving Problems
- Demonstrating Positive Attitudes & Behaviours
- Being Responsible

Employment Area:

- Industry
- Research

n = 315
Which Technical / Food skills will be most important?

- Food Safety: 57%
- Product Development
- Research
- Quality Mgmt
- Food Legislation
Which Technical Skills do employers think are most important?

- Product Development
- Food legislation and control
- Food safety management, food hygiene and food safety control
- Quality management, quality assurance and quality control
- Research
Employers and Employees seem not to agree on which soft skills and which technical/food skills are the most important.
I have been informed that my interactions with people may be overly analytical. In short, I lack so-called "soft skills."

I shall now attempt to remedy this perceived malady. Exposition established. Let us commence.

Perk, how are you... feeling?

I'm feeling like I'm neck deep in the weeds and I also gotta go to the bathroom!

Intriguing! My game theory tree has no course of action for such a response!

Seems like this "soft skills" process will take much more hard data and an increased analytical approach!
Incorporating Soft Skills in FS&T Education
THANKS FOR LISTENING!

THE ART OF LISTENING

A SOFT SKILL!