Attitudes Regarding Basic Employability Skills Among Graduates of Agricultural Programs: A Pilot Study

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Background I

• Students enter college with the expectation that they will acquire the knowledge, skills, and abilities to enter the workforce.
  – Graduates expect that they will have acquired these.
• Employers have an expectation college graduates possess the employability skills required to perform their jobs.
• Faculty consider they are providing students with critical knowledge and capabilities for their careers.
Background II

• However, there is increasing concern in industry, government and academe that graduates lack basic ‘employability’ skills to succeed.

• That there is a misalignment between academic preparation, the perceptions of students and the needs of employers
  – Resulting in costly remedial training
  – And for some to question the real value of a degree and the higher education system

• This concern is also evident in the Agricultural sector
Critical Employability Skills /Measurement Items

1. Communication skills – the ability to read, write, speak, and listen; and to interpret, assemble and articulate information
2. Math skills – ability to perform basic mathematical procedures to solve practical problems
3. Problem solving skills - ability to think creatively, make decisions, and solve problems
4. Management skills - the activities of planning, organizing, leading, and controlling to meet organizational goals
5. Interpersonal skills - ability to work in teams, help others to learn, negotiate, and work in a multicultural organization
6. Customer service skills - ability to anticipate and meet the needs of both internal and external customers
7. Leadership skills - ability to motivate others to achieve organizational goals
8. Life-long learning skills - willingness to assess and recognize one’s own strengths and weaknesses and to pursue self-development
9. Technology skills - the ability to select procedures, equipment, and tools to acquire and evaluate data
10. Work ethic - includes attendance, punctuality, motivation, the ability to meet deadlines, and realistic expectations
Purpose

• To develop a triangular study, investigating the alignment of academic preparation, employers needs, and graduate capabilities in the agricultural field.

• By examining the attitudes of recent graduates, the faculty who taught them, and human resource managers who recruit them.

• Seedcorn funds were received funding from the California Agricultural Research Initiative to implement a pilot study to investigate one of these:
  – whether graduates of the College of Agriculture at Cal Poly Pomona have experienced a skills gap in transiting from university into their careers.
Objective

- To identify perceptions of recent College of AG graduates regarding:
  - whether they believed they developed employability skills in college;
  - whether they considered these skills were important for their first job out of college;
  - what they perceived their level of competence at performing these skills was in their first job out of college.
Methodology

- A survey was designed using 5-point Likert scales.
- The ten dimensions of basic employability skills were the focus of this study.
- Participants were graduates of the Plant Sciences and Apparel Merchandising & Management departments who graduated within the past 3 years.
  - The most accessible alumni data
- A total of 585 graduates were invited to participate.
- Surveys were completed online.
- The response rate was 16.5%.
### Perceived Importance of Skills

Mean of Responses

<table>
<thead>
<tr>
<th>Skill</th>
<th>Mean of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>4.8</td>
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<tr>
<td>Work Ethic</td>
<td>4.48</td>
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<tr>
<td>Interpersonal</td>
<td>4.45</td>
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<td>Problem Solving</td>
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<td>Communication</td>
<td>4.12</td>
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<tr>
<td>Life-Long Learning</td>
<td>4.03</td>
</tr>
<tr>
<td>Math</td>
<td>3.85</td>
</tr>
</tbody>
</table>

**Slightly Agree – Strongly Agree**
Perceived Competency Level

Mean of Responses

- Management: 4.58
- Technology: 4.34
- Interpersonal: 4.32
- Work Ethic: 4.28
- Leadership: 4.18
- Customer Service: 4.08
- Problem Solving: 4.03
- Communication: 4.01
- Life-Long Learning: 3.85
- Math: 3.76

Importance Ranking:
1. Management
2. Work Ethic
3. Interpersonal
4. Leadership
5. Problem Solving
6. Technology
7. Customer Service
8. Communication
9. Life-Long Learning
10. Math

Scale: Slightly Agree - Strongly Agree
Perceived Reception of Skills at College
Mean of Responses

- Management: 3.97 (1)
- Technology: 3.76 (6)
- Work Ethic: 3.73 (2)
- Leadership: 3.6 (4)
- Interpersonal: 3.56 (3)
- Life-Long Learning: 3.51 (9)
- Communication: 3.5 (8)
- Problem Solving: 3.49 (5)
- Math: 3.45 (10)
- Customer Service: 3.32 (7)
Findings – Importance of Skills

• Graduates ranked math the lowest of the employability skills and communication skills third from bottom.
  – Contrary to the literature that indicates communication and math skills as the most important.

• Graduates ranked management skills and work ethic high.
  – this better corresponds with the literature.
Findings – Competence Level

• Surprisingly, they ranked problem-solving, communication, lifelong learning and math skills lowest among their employability competences.

• Graduates ranked technology skills competence highly but considered it 6th in terms of importance in their first job on graduation.
Findings – Receipt of Skills in College

• Also surprisingly, graduates ranked lifelong learning, communication, problem solving and math skills lowest amongst employability skills received in College.

• Graduates felt that while work ethic was important they ranked the reception of work ethic in college fairly low.
Preliminary Conclusions

• Findings diverge from expectations.
  – Importance of math and communication skills is heavily reinforced throughout Ag programs.
  – Programs place a heavy emphasis on problem solving and professional attitudes.
  • Learn by doing
  – However, they suggest support for the literature in terms of misalignment and the need for remedial training.
Research Limitations

• A pilot study
• Using a convenience sample
  – graduates in two programs at the College.
• Need for a bigger study
  – All college/ multiple colleges
  – A triangular study to examine hypotheses of alignment between employers needs, graduate skills, and program outcomes regarding employability skills.
THANK YOU