

## ***"LISTENING TO THE VOICES OF ARIZONA BUSINESS & INDUSTRY"***

### **WORKPLACE EMPLOYABILITY SKILLS PROJECT REPORT TO THE ARIZONA SKILL STANDARDS COMMISSION**



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## REPORT TO THE ARIZONA SKILL STANDARDS COMMISSION

### *"LISTENING TO THE VOICES OF ARIZONA BUSINESS & INDUSTRY"*

MAY 24, 2011

## Arizona's New Workplace Skills



Sponsored by Arizona Department of Education Career and Technical Education Division  
in partnership with ASU Workforce Education and Development Office  
and Corporate //Education Consulting, Inc.  
in conjunction with Arizona Chamber of Commerce & Industry  
and Arizona Joint Technological Education Districts

**The New Workplace Skills were adopted  
by the Arizona Skill Standards Commission  
July 17, 2011.**

The contents of this publication were developed with funds allocated by the U.S. Department of Education under Carl D. Perkins Career and Technical Education Act of 2006 P.L. 109-270. These contents do not necessarily represent the policy of the agency, nor should endorsement by the federal government be assumed.





ARIZONA STATE  
DEPARTMENT OF EDUCATION

# ARIZONA SKILL STANDARDS COMMISSION



WORKFORCE EDUCATION  
AND DEVELOPMENT OFFICE

JULY 2011

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As Co-Chairs of the Arizona Skill Standards Commission, we are acutely aware of the inter-relationship between education and economic development in our state. We know that our schools cannot ultimately succeed without the support of our citizens, and the future of Arizona's economy cannot ultimately succeed without a trained and literate workforce. This is the philosophical underpinning for the work of the Commission.

In a major step forward in accomplishing this goal, Career and Technical Education (CTE) students who complete CTE programs approved by the Arizona State Board of Education/ Vocational and Technical Education are now required to pass an industry-validated assessment of the skills that are taught in these programs. At this point, we are well on our way toward full implementation of these assessments – statewide, on-line and in real time – in 51 CTE approved programs. Students who complete the approved programs and pass the assessments receive certificates of skill attainment and transcripts that reflect these skills.

But the Arizona employers who have validated the technical skills that are now being measured have told us loud and clear that, while an employee's proven technical skills are essential, they are not enough. No matter how proficient in the technical skills of a job – regardless of the business or industry – an employee who lacks the ability to communicate, collaborate, think, and demonstrate a work ethic that supports the goals and culture of the organization is not likely to get or keep, let alone advance in, a job.

In order to best determine just what these "essential workplace employability skills" are in the real world workplaces of 21<sup>st</sup> century Arizona, we recently conducted eleven statewide forums in which Arizona employers – large and small – told us the employability skills that were most important to them. From these sessions – "Listening to the Voices of Arizona Business and Industry" – we have distilled what we learned into a set of nine standards and supporting skills, from which assessments will be developed and administered to students who complete Career and Technical Education programs. This report contains the summary of our findings as well as a complete compilation of responses from each of the Forums. We invite and encourage your review of this impressive report.

To the Arizona Chamber of Commerce and Industry, the superintendents of Arizona's joint Technical Education Districts, and to participating employers, chambers of commerce, economic development organizations, workforce training providers and local and county government officials, we express our thanks and gratitude for their participation and support. We are all partners in helping to ensure a bright future for our state, and we are counting on your continued involvement as we go forward.

Sincerely,

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## **ACKNOWLEDGMENTS**

**THE PROJECT TEAM** is deeply indebted to the following collaborators without whom the regional focus groups would not have been possible: the leadership of the Arizona Department of Education, the Arizona Chamber of Commerce and Industry, the Joint Technical Education Districts, Yuma County, and the City of Phoenix Workforce Connection Division.

**THE PROJECT TEAM** sincerely thanks the almost 250 Focus Group participants, noted by name, title, and industry in Appendix 6, who generously shared perspectives on critical workplace skills needed for employment in the broad spectrum of Arizona business and industry. It is your “voices” that have given rise to this report regarding Arizona’s new workplace skills and the dynamics of Arizona’s new workplace.

**THANK YOU** for letting us listen.



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## WORKPLACE EMPLOYABILITY SKILLS PROJECT

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#### *“LISTENING TO THE VOICES OF ARIZONA BUSINESS & INDUSTRY”*

#### INTRODUCTION

Workplace employability skills (“soft skills”) are critical to getting and keeping a job. While technical skills and “know how” are also critical, technical skills are almost always required by employers in combination with “soft skills” as they hire and keep employees on the job. The rapidly-changing world of work is prompting a new look at what employers expect for workplace employability.

This report recounts what was heard while “listening to the voices of Arizona business and industry.” The workplace employability skill definitions, conceptualization, and standards presented in this report are products of the dialogues with a broad spectrum of Arizona employers.

#### BACKGROUND

The members of the Arizona Skill Standards Commission (APPENDIX 1), from its inception in 2007, have been committed to the establishment and ongoing development of the Arizona Career and Technical Education (CTE) Assessment System. Because of both federal and state mandates, the Arizona Department of Education (ADE) through the Career and Technical Education (CTE) unit must annually report student attainment of technical skills in accordance with the approved state plan. Therefore, the Commission’s initial focus has been on measuring technical skill attainment. In partnering with Arizona State University (ASU) / Workforce Education and Development Office (WEDO), ADE/CTE has, to date, criterion-referenced assessments of industry-validated technical skill standards in 51 CTE programs. Development is continuing to address technical skills in all Arizona CTE program areas.

The Arizona Career and Technical Education Assessment System was envisioned and designed to be comprehensive, flexible, and expandable as emerging programs were added, as additional modalities of assessment became feasible, and as new needs of the Arizona workplace were identified. Employability and workplace skills have historically been included in Arizona career and technical education programs. Gaining employment for entry-level workers and sustaining employment by proving worth in the workplace have been high priorities for Arizona CTE educators. Yet with the hue and cry across America for preparing a “highly skilled workforce” with “21<sup>st</sup> century skills,” for “the new workplace,” much has been left undefined and ambiguous.

#### PROJECT LAUNCH

In July 2010, Dr. Joyce Malyn-Smith, a renowned consultant from the Education Development Center in Newton, MA, first spoke to the Commissioners in Tucson, AZ at the Annual Joint Meeting with the Stakeholders Committee. At that time, she shared new and ongoing research regarding new skills required in the workplace. She gave vivid examples of the need for employees to exhibit “deeper” expert thinking and to be able to work in teams, often online and even geographically distributed across the globe. Piquing the interest of the Commission, Dr. Malyn-Smith returned in October with her colleague Joe Ippolito for a presentation and facilitated dialogue with the Commission (APPENDIX 2).

## Arizona Workplace Employability Skills Project 2010-2011

This initial dialogue was captured and posted “on the walls” and later categorized into emerging skills categories. While there was expressed concern for retaining “basic skills,” there was also much dialogue regarding “new expectations” and “evolution” to the rapidly-changing world of “workplaces.” One Commissioner succinctly summed up the situation: “If we can’t DEFINE it, we can’t MEASURE it, and we can’t MANAGE it.” Another Commissioner quickly followed with the question, “How do we teach this?”

The October session ended with the Commissioners completing a survey regarding “emerging, critical workplace skills” (APPENDIX 3). The compilation of Commissioners’ survey results quantified three dimensions: presence, importance, and frequency. Overall, on the basis of both the dialogue and the survey results, it appeared that the skills initially posited to the Commissioners as “emerging” were actually present, needed, and valuable to workers for both gaining and keeping employment and to employers for the future success of their enterprises.

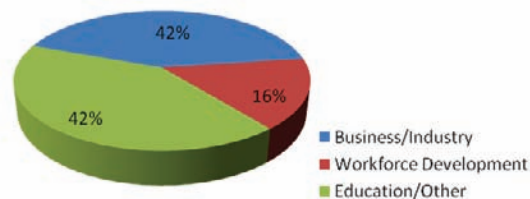
It was from this platform that the regional focus groups were conceived, designed, and implemented to ensure that the “voices” of a broad spectrum of Arizona Business and industry would be included in defining and developing standards for workplace employability skills for Arizona.

### ARIZONA STATEWIDE FOCUS GROUPS

THE ARIZONA DEPARTMENT OF EDUCATION CAREER AND TECHNICAL EDUCATION DIVISION and ARIZONA STATE UNIVERSITY WORKFORCE EDUCATION AND DEVELOPMENT OFFICE with CORPORATE EDUCATION CONSULTING, INC. (CECi) coordinated efforts with THE ARIZONA JOINT TECHNOLOGICAL EDUCATION DISTRICTS (JTEDs) and ARIZONA CHAMBER OF COMMERCE & INDUSTRY to convene eleven regional focus groups over a 6-week period to identify workplace employability skills and collect information about their importance and frequency of use in the workplace from the perspective of Arizona business and industry leaders (APPENDIX 4). Nine meetings were hosted by eleven JTEDs and their local Chambers of Commerce, one by Arizona Western College, and a final meeting convened by City of Phoenix Economic Development Department (APPENDIX 5). While Carolyn Warner, former Arizona Superintendent of Public Instruction, business owner and co-chair of the Arizona Skill Standards Commission, presided over nine of the meetings, Glenn Hamer, President and CEO of the Arizona Chamber of Commerce & Industry and David Bolger, COO of CECi, each chaired a focus group.

THE WORKPLACE EMPLOYABILITY SKILLS PROJECT FOCUS GROUPS included representation from approximately 100 Arizona businesses and industries in addition to education and workforce development sector participation for a total documented attendance of 246 (APPENDIX 6).

Participation Statewide	
Total	246
Business/Industry	104
Workforce Development	40
Education/Other	102



### CRITICAL WORKPLACE EMPLOYABILITY SKILLS

The skills used to spark participation during the focus groups were identified at the October 20, 2011 meeting of the Arizona Skill Standards Commission (APPENDIX 7) as skills required for workplace/economic success in a global knowledge and innovation economy enabled by technology. Seven emerging skills were brought to the Commission in October, and an additional four skills were added to the focus group survey in response to the Commissioners' comments: collaboration, legal and ethical practice, professionalism, and initiative and self direction.

#### THE ORIGINAL ELEVEN AS IDENTIFIED FOR THE FOCUS GROUPS

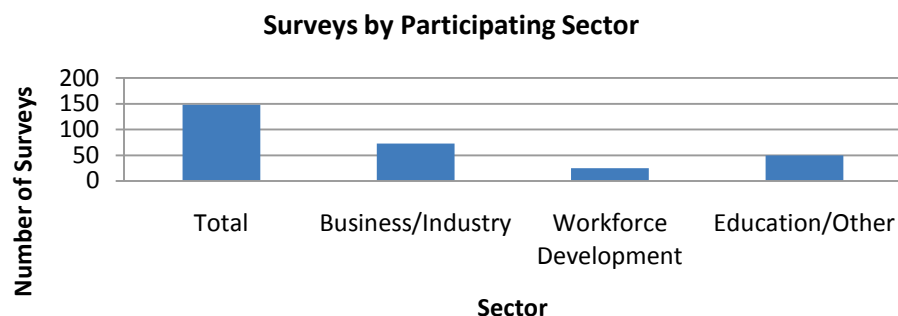
- **DIVERGENT AND CRITICAL THINKING, PROBLEM SOLVING, DECISION MAKING** (Expert Thinking)
- **COMPLEX COMMUNICATION** (Person-to-person interaction, knowledge transfer)
- **CREATIVITY AND INNOVATION** (Generating/developing new ideas, products, processes)
- **CULTURAL COMPETENCY** (Interacting with diverse groups/individuals for common purposes)
- **SOCIAL NETWORKING FOR BUSINESS** (Social media tools for branding, networking, customer service)
- **WORKING ONLINE IN GEOGRAPHICALLY DISTRIBUTED TEAMS** (Global work in virtual spaces)
- **VISUAL, PATTERN-BASED THINKING, INVOLVING MATH AND QUANTITATIVE PROCEDURES** (Computational Thinking)
- **COLLABORATION** (Communicating, planning, and implementing activities cooperatively with others)
- **LEGAL AND ETHICAL PRACTICE** (Acting within the rules of conduct for business)
- **PROFESSIONALISM** (Standards of behavior in the workplace)
- **INITIATIVE AND SELF DIRECTION** (Controlling, guiding, and managing one's own activities)

### DOCUMENTATION OF SURVEY RESULTS AND FOCUS GROUP DIALOGUE

The survey instrument (APPENDIX 7) was modified based on feedback from the Arizona Skill Standards Commission in October and enabled the project team to collect information in three areas:

1. **Presence:** *To what degree are these skills present in your workplace?*
2. **Importance:** *How important are these skills to the future success of your business/industry?*
3. **Frequency:** *Once adopted, how frequently do you anticipate workers in your business/industry would use these skills?*

A total of 148 surveys (73 Business/Industry, 25 Workforce Development, 50 Education), addressing the original eleven skills, were returned from all focus group. Data were tabulated separately for each regional focus group, as well as collectively. The composite results are expressed in charts and tables by skill set and sector (APPENDIX 8). For example, the results for Complex Communication bridge two pages and provide responses to the questions noted above in a set of Composite graphs side by side with the segmented responses from Business & Industry, Workforce Development, and Education sector participants.



Focus group dialogue notes were coded and tabulated by the project team using the original set of eleven skills plus those topics or themes that emerged during the focus groups, including flexibility/adaptability, financial literacy, generational culture, organizational culture, customer service, and issues of implementation (APPENDIX 9).

Both survey and focus group dialogue data brought trends and patterns to light. This information, considered with other research nationally and globally (APPENDIX 10), resulted in a rich resource of concepts and ideas for drafting the workplace skill framework, standards, and performance objectives.

### QUOTES FROM OUR NOTES

#### **Complex Communication Person-to-person knowledge transfer**

- Complex communication is important – transfer of knowledge is complexity, essential to a team. Technology adds layers of complexity.
- Communication is the foundation.
- If asking questions is encouraged, it improves the dialogue and builds relationships.
- It's not just speaking – it's INTERACTING. Complex is good.
- Looking at kids and generations, we need to allow them to use the tools they're comfortable with AND expect them to be on time, ask questions, etc.
- Kids communicate so well via texting and Facebook but not one on one. ..Maybe we should start doing interviews with *us* texting!
- Communication skills, when not engrained early enough, are difficult to transfer into other areas. It needs to be a part of them. INTEGRATED.
- Time is money – ours and yours – an inability to measure and move materials properly and an inability to COMMUNICATE have consequences for time and profitability.
- Communication is cultural and requires adaptation and research.
- Systems thinking “wisdom” ties into complex communication – timing, guiding, mentoring, looking to the future. For example, hospitals – how will reforms affect them? and affect career development in nursing? The majority of nurses presently work in hospitals but will need to transition to outpatient care and community education. “Complex Care” will require collaboration with other services without “silos.”
- We have 4 tribes in La Paz, as well as Hispanics and others – different languages are a challenge. Verbal and body language need to be understood.
- Collaboration in this environment? Culture [understood] as generational and ethnicity. Includes technology, tension around practices for communication and styles.

#### **Computational Thinking Pattern-based thinking for problem solving, innovation**

- Computational thinking is an essential workplace skill – math overlaid with critical thinking. “How to connect the dots.”
- Understanding systems is extremely important in healthcare – [recognizing] the heart as part of the body.
- Critical thinking component – listening, analyzing, assessing, categorizing then problem solving and decision making. This is Systems Thinking – gathering a body of information and processing it to get to a solution.
- An understanding of how their work impacts the system is needed.
- Conceptual and spatial skills are needed!

#### **Creativity & Innovation Generating/developing new ideas, products, processes**

- [If they have] divergent and critical thinking skills with complex communication skills with creativity and innovation skills – all the other bases are covered.
- It's important to be on time, be part of a team, to think critically and know how to think outside of the box.

## Arizona Workplace Employability Skills Project 2010-2011

- I'm consumed with my business surviving and a lack in this area among my employees. If employees recognize what it means to have their business on the line, it challenges them to express creativity and innovation.
- Creativity and innovation can be negated in the workplace and students need to understand this, and that it [creativity] may stimulate other ideas. It requires persistence and takes time. Perhaps more important is enthusiasm.
- Entrepreneurship is more than a movie; it's the elemental things. Where do I get the supplies? What do I need? How do I pay for it?
- As a community we collaborate, doing more with less money, and flexibility is a requirement. Creative ideas need to be acknowledged.

### **Cultural Competency Interacting with diverse groups/individuals for common purposes**

- Our generation and before, people kept jobs for a long time. The expectation now is 15 jobs in 25 years. They don't want to give and we (Boomers) will not give. Requires cultural competency. Globally, too.
- When dealing with people, need to talk eyeball to eyeball first, then phone
- Need to consider that some people do NOT want interactivity. They want the transaction to move quickly, get it done.
- Need to teach people across cultures how to relate/communicate with each other. Must recognize and respect differences.
- Complex communication includes building in social acculturation and diversity.
- We now have 4 generations in the workplace. There are barriers within organizations that are in the way of bringing people together to collaborate – age, race, etc. Probably based in perception. Leaders need to strike down myths, shoot for common goals. These are frequent problems among my clients.
- Our company tests for the ability to work with other cultural groups. Our hires may speak French as their first language and need to work hard to communicate in English.
- Cultural skills, crossing tribal boundaries. Youth don't step up and ask until a relationship is developed. Need to be able to shift between home and work.
- More emphasis needed on character.
- Character is not the same in different cultures.
- Tolerance for diversity has got to be a focus with competing value systems.

### **Expert Thinking Divergent and critical thinking, problem solving, decision making**

- We see a lack of analysis skills, an inability to build an argument.
- If you think critically, you don't waste product.
- Resource management/allocation is a THINKING task.
- Critical thinking includes knowing your limits.
- Texas Instruments interviewed 12 graduate students from ivy league schools – none of them got through the 3 day process because of their lack of ability to TRY, to ask questions, maybe make a mistake.
- We learned to apply thinking in a different way. We asked interviewees "How many barbers are there in LA?" The guy who "computed" it on the spot in the interview got the job.
- What drove our Auto Industry technicians to be techs? 1. Need to solve problems 2. Need for appreciation 3. \$\$\$
- Employees have problems with this; afraid of making a WRONG decision so making NO decision; employees require directions at every step.
- Need to let employees make mistakes or they will be afraid to make a decision. ► Need to do this in education. My example of making a decision, maybe not the best one, for the good of the company is as a young employee. I gave away a \$1000 sofa to manage company mistakes with a customer.
- Example of critical thinking, interacting with customers who have a need
- We use real world problems, examples: virtual football team, story problems (computational thinking, problem solving, critical thinking). We need to get through elitism to change how we approach quantitative skills.

### **Social Networking for Business Social media tools for branding, networking, customer service**

- I use it to communicate with clients in the workforce.
- Texting, technology overlay of communication, NOT face to face. What fits the audience?
- I feel at a loss because I don't use social media. When I bring in someone new, I'm looking for those skills.
- Now kids communicate in 140 characters or less. Students can do this. They have no idea how to TALK to a human being on a phone.
- We can't stop the wheels from turning. How can we incorporate it into our workforce? How do we USE those tools and skills?
- Economic development is 95% social media. We have to be able to get out the story.
- Have to stay on top of Social Media because it changes so quickly. People now are choosing where they eat and go based on info online.
- Technology vs. face-to-face, skills must be taught.
- ADD behavior is rewarded. "Move fast and break things" is the Facebook motto. This is our younger generation at work. Resumes are going to be useless since reputation is built online. Good – bad – none – what's your online reputation? People that get what's going on don't make the decisions and vice versa.
- Critical for branding and advertising – we need to keep up with the technology.
- Second Life is now being used as a virtual world to create business. Pulte is using it.
- This is the student's world – they are designing apps for Apple.
- Youth are not using technology to their advantage at work – generally social use
- Use of social media is situational.
- Social networking is a TOOL, not a skill. Has to be directed at communication.
- It's engrained in their beings. We have to embrace it because it draws, drives, creates a bigger audience for us. It's encouraged for a specific purpose.

### **Working Online in geographically Distributed Teams Global work in virtual spaces**

- Geographically distributed teamwork may occur through open networks like Facebook.

### **Collaboration Communicating, planning, and implementing activities cooperatively with others**

- Collaboration MORE of a challenge with social media. Technology increases the barriers.
- Example, "Can't have these 3 people working together – they don't get along." ???! Model communication!!!
- Collaboration skills are essential, an appreciation that I'm part of a bigger puzzle. The TEAM & COMPANY must show up and be shown.
- Collaboration – work together toward common goals, respectful of strengths and weaknesses. All phases of society need this.
- An entry level employee is a TEAM MEMBER – employer and employee need awareness. Example, McDonalds entry to ownership
- More can be accomplished for the good of the WHOLE if all have their eyes on it. Example, "You are part of the healing process for one person [not just dealing with a disease or procedure]." Attitude is worked upon by TEAM.
- Teachers and students are being trained TOGETHER, creating collaboration between students and teachers (beyond apprehension to productivity).
- Collaboration – may have a technical teamwork skill but lack the communicative ability that makes it work.
- Team vs. dictatorial leadership – need to recognize value of people we deal with. We are all members of the community in which we live, NOT touch-feely but realistic assessment. This is a part of collaboration.

### **Legal & Ethical Practice Acting within the rules of conduct for business**

- Ethics [of social media] - "Appropriate" use impacts employability, social responsibility.
- Things are innocently said [social media] that create a lot of problems.
- Kids don't understand the ethics behind Facebook. Example, taunting other students electronically.



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- Social networking needs restraints in place to be effective for business. Address managing public records, ethics.
- Critical to have a conversation about expectations. Example, narcotics were missing and a nurse was identified. She said, "I need help." You work with a person like that. However, failure to admit such a mistake may have a different result.
- Employee honesty is important and changes the consequences for mistakes.
- Inability to pass a drug screening. We have a lot of training on this.
- Lack of self-control.
- Legal and ethical skills are a major issue.
- Ethics – putting in hours of WORK, finding something to do.
- Students like collaborating. The #1 issue is ethics. They have no problem stealing. It is socially acceptable. Not business ethics, just plain ethics.
- Example, giving subs to friends for a total of \$60K for the year – didn't understand that it was wrong because he wasn't taking them himself.
- Legal and Ethical – this is basic. A job is a privilege. Ethics, values and religion were taught in my school. [This gen says] "I expect to be treated the way I want to be treated."
- Corporations/businesses have taken so much away from the employee that there is no loyalty any longer, in either direction. Example, Wisconsin cutting pensions. Entitlement vs. Loss (loyalty and resources)

### **Professionalism Standards of behavior in the workplace**

(\*asterisks indicate multiple comments about the same topic)

- Accountability\*\*\*is missing from the list.
- Attitude\*\*
- Be Present.
- Basic Skills: Character\*\*, integrity, show up for work!
- Soft Skills: showing up on time, dependability, maturity, integrity\*, communication
- Appearance: grooming and dressing\*
- Pride in a job well done
- Separation of personal and professional life.
- I address dress code first in healthcare. Appearance supports patient trust in their care.
- Example, Fairchild engineers: VPs would come from NY to the plant. Engineers and workers would watch drivers sitting out in the heat and decided something needed to change. They started their own company – Intel: dress as you want; work where you want; put in your 40 hours.
- What is appropriate for DIFFERENT jobs? example, game store – a nose ring is appropriate.
- Business etiquette is missing.
- In testing/evaluating IT systems, Professionalism. They represent our company and first impression is important. After that, Complex Communication – the ability to receive, digest, process and return communication is essential (our client's are in Defense, from generals to CEOs).
- Example, 24 year old, married with baby, had problem running off mouth. He said the wrong thing to the wrong person. Thought he should be treated special – lost his \$50/hour job. We have a no tolerance policy for this kind of behavior. How do you teach Manners?
- Appearance matters to a patient in healthcare. Their life is in your hands. This is #1!
- Professionalism – come to work on time. Because of the lack of discipline, we don't hire kids anymore, and the store used to be a training ground.
- Kids who got mad and walked off the job into the military came back and apologized.
- We have employees come in late and leave early. They've lost the drive of older workers. Responsibility was something we learned from mothers/fathers. Now people see no consequence in letting other workers down.
- We take for granted that kids have some kind of work ethic. Example, a young man did all of the work on his boss's list, so he went home at 1:00 instead of 5:00.
- Basics: speak to people, math, show up on time, dress properly, hygiene – the rest employers want to train.
- The psyche of all people is affected by one who doesn't engage on the job (lazy).

### **Initiative & Self-Direction Controlling, guiding, and managing one's own activities**

(\*asterisks indicate multiple comments about the same topic)

- Timeliness (ability to manage self) Must learn to BE THERE. Initiative & Self-Direction? No. As an employer, I manage their activities.
- Lead by example.
- Initiative and self-direction\*, self-motivation
- Confidence\*\*
- Respect of self and others\*\* (given and received)
- Asking has to do with confidence, self-esteem, respect of self and others. Example, college student went to another department to ask a question – did not ask me!
- In our organization we measure employees on initiative, to look past the job they're doing to the next job.
- If you don't know something, go ASK. Can I? Should I? Don't guess.
- Leadership is missing. Skills need to be LEARNED and TRAINED.
- Initiative and self direction. Example, In & Out Burger staff – no one stands over them. They do what needs to be done when it needs to be done. They are told, "You have the power to do what needs to be done."
- I'm younger, have been in my job 15 years and like it. I see Initiative and Self Direction as a challenge. No one manages my time or schedule – I love it.
- Kids need to compete for jobs in THEIR areas of interest. Try to find something that will prepare/lead them to their interest. Don't disqualify yourself because of lack of training.
- Re: lack of ability to take initiative and stay with it. We do a lot of cajoling and use incentives. Where's the motivation gone? They don't get that it's THEIR responsibility.
- Accountability needed, young people have entitlement, sense that employer is accountable to them.
- My bigger concern is students who aren't driven toward a career. People taking what they can get.
- We program our students – what to learn and how to learn – and it's difficult for them to take initiative, have self-direction.
- Initiative & Self-Direction have to be the greatest areas lacking across industries. Still is a high expectation that is not met here. May change 2 gens down the road – and not necessarily tied to a generation but is now a problem. We created/perpetuated entitlement. Job loss/sustainability of self could lead to greater responsibility for self with expectation.

### **Flexibility/Adaptability**

- Looking at kids and generations, we need to allow them to use the tools they're comfortable with AND expect them to be on time, ask questions, etc.
- Flexibility and open mindedness – employers with a willingness to work as a team
- In healthcare, we respect and value all these skills – adaptability, diversity with technology.
- About one employee – "How adaptable are you to change? Are you willing to learn a truck from one end to the other and to track everything?" The company helped him transfer skills.
- National shortage of truck drivers now. Are drivers willing to learn and change to get the work?
- Cross training – need employees to be able to handle multiple jobs in the company.
- Flexibility/adaptability – evolution concept, ability to change and be part of change.
- People need to reconsider strong opinions. There's a need for flexibility.
- Retooling, adaptation, flexibility – all skills the millennials are better at than older gens. There's an increased need here.
- Organizations need to create an environment for it. Includes the ability to change quickly and effectively. It's critical that employees think "There's a better way to do this!"
- Adaptability of self to fulfill the mission of the organization.
- Flexibility – "that's not my job." We focus too much attention on the job description.

### **Financial Literacy**

- Financial industry needs skilled people as CLIENTS. Kids don't know how to manage \$.
- Launch in Life program includes: finances, interviewing techniques, resume writing, knowing individual skill sets, understanding connection between education and quality of life. Also percentages, counting change.

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- I'm consumed with my business surviving and lack in this area among employees. If employees recognize what it means to have their business on the line, it challenges them to express Creativity and Innovation (C&I).
- AZ Counts conversation: expecting kids to understand year 2 Algebra exponential functions but not showing the application to credit cards and personal finance.
- Finances. Need a general business class that teaches the "system" including personal finances. Business is about profitability, and when I contribute, it passes along to me. This is "focused pride."
- How important is financial literacy? It impacts company value and productivity. If people can't manage their own resources, how are they managing yours?
- Can this be a course? There is a critical parental piece here as well.
- Financial literacy/economics – including personal

### Generational Culture

(\*asterisks indicate multiple comments about the same topic)

- Millennial learners – generation differences – respect for workplace and boss vs. working for an experience. Example, will give up a good job to go to Costa Rica and zip line. Difference in expectations.
- "I don't care what I'm going to LEARN. I care about what I'm going to DO."
- Parenting is at issue.
- Generational differences are a form of culture. Example, "teenager" students/teens unreceptive to ASKING – are we receptive to BEING asked?
- Our kids are moving into the unknown pull of the future, requiring that WE have a different approach to their development.
- We need to be careful about appearance in determining a person's abilities. Non judgmental.
- Relationship building\*
- Intergenerational skills
- Hiring: May present well but does not possess the skills (good "camo").
- Address the sense of entitlement
- Regarding millennials – we need to be cognizant of how WE have come up and not implicate them – not filtering our perception onto them. Need to have THEIR values understood and recognized. Could a millennial teach me something? What can we learn from each other?
- I'm a BABY BOOMER! I get caught up in being judgmental. This bothers me.
- Our generation and before, people kept jobs for a long time. The expectation now is 15 jobs in 25 years. They don't want to give and we (Boomers) will not give.
- Entitlement – "I deserve that job." Shouldn't have to work for it/earn it.
- People re-entering have gone through transition, often undergone new training. They're terrified of making a mistake and losing their job. "World awareness" is lacking. Kids don't know where they are and how they got there. Example of son not knowing where he was to tell Dad how to get there to pick him up. This is true with the young people at my company.
- My daughter has "keyboarding" skills – we had "penmanship." I had to back off of her bad penmanship when I realized that I don't write very often myself.
- The company Tenacity is a business based on expectations. Mutual expectations are set or we go our own ways. The easiest way to avoid a fight is to make a good hire. Better to walk away from an offer. Need to teach kids how to articulate THEIR expectations.
- We can't stop the wheels from turning. How can we incorporate it into our workforce? How do we USE those tools and skills?
- This is the gap [technology]. Older gen doesn't get this. Younger gen is tuned in. We need to hire people with these skills. My young staffer keeps me aware of these things.
- It's a middle management problem. MM does not know how to supervise the younger gen.
- "I'm bored" on the job. In construction, we modified equipment to be more like gaming, then created a competition to simulate it. Still "I'm bored."
- "Is this generational?" "Well, I did it 40 years ago..." (Laughter)
- What I heard today tells me that employers need to catch up on working with this next generation.  
\*\*VITALLY IMPORTANT\*\*

## Arizona Workplace Employability Skills Project 2010-2011

- Most of us don't even have a fundamental understanding of where our kids are and what they need to learn. Texting – we used to laugh and now it's essential to us.
- ADD behavior is rewarded. "Move fast and break things" is the Facebook motto. This is our younger generation at work.
- We now have 4 generations in the workplace. There are barriers within organizations that are in the way of bringing people together to collaborate – age, race, etc. Probably based in perception. Leaders need to strike down myths, shoot for common goals.
- I see this a lot between generations. They see that there are different expectations but they want others to value what they value. Example, younger with technology skills.
- Gap due to age, value systems, upbringing, challenges we would not imagine in a previous time. Example, movies – there's a desensitization of our ideas, a layer of callousness and apathy.
- Basic skills for entry level jobs are missing. This is generational and economic. We've had to look to other countries to supplement our workforce. It takes a year to find a mining engineer.
- Need to focus on what motivates the workforce. Our employees are most motivated by Recognition (which is what we sometimes perceive as entitlement). There are subtle nuances in how this is portrayed. They are motivated second by Giveback, third by \$\$\$. Example, a young man from Japan started a Give Back program "Socks for Japan." A letter accompanied each pair of socks with an email address to enable a connection – a personal connection.
- Retooling, adaptation, flexibility – all skills the millennials are better at than older gens. There's an increased need here.
- Technical skills not just the issue. Youth need to BE THANKED. What? They get a paycheck! This creates a problem with employer/employee relationship.
- When does the employee get to decide how they communicate?
- Training on "formal" communication and protocols is needed cross-generationally.
- Relationships at work aren't as important to them as those outside.
- This generation wants results now and will try to get them – over you.
- We have intergenerational workshops with supervisors or nurses at the hospital, covering how differences in home life, technology have shaped the younger generation differently. Family might be less stable, jobs less stable, or "a better job around the corner."

### **Organizational Culture**

- We set people up for failure if we don't tell them our expectations.
- Cross training – need employees to be able to handle multiple jobs in the company.
- I remember when McDonald's first opened. They hired all young men who were smiling and happy. No more. Have we employers lowered our standards?
- It's different depending on the business.
- We must let students understand OUR cultural norms.
- Employees need to know the history of the business.
- What are the "signs" of organizational culture?
- Is there a need to assimilate before change can be made in an organization?
- Culture includes business and personal (coworkers).
- Awareness, "leave self behind" to succeed.
- Young people need to understand an organization's culture – assess, collect data, ask questions, make decisions in context – Participation for Success.
- MTV is a large, global employer that uses technology. Needs are specific to the employer.
- Corporate culture starts at the top. Even corrections is a business – a city of businesses. I have to be able to SELL my culture, to staff and inmates, in order for them to BUY it. BUY IN is important. I've had to learn to respond to questions. Need to take time to create the culture top down.
- Professionalism. Organizational politics is one of the lowest areas of competency. They need to ask "How do things get done in MY organization?" "How do I navigate THIS system?" Need skills for asking questions.
- They need to know the "jargon of the job."
- It's the Google effect, seeing how it is elsewhere and wanting to create it for one's self. "Can I bring my dog to work?"

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- As a COMMUNITY we collaborate, doing more with less money, and flexibility is a requirement. Creative ideas need to be acknowledged.
- Styles of administrative management/leadership give mixed signals. In team environments each person is responsible for success.
- In management, when WE walk the walk, the attitude is better. It's an important effort for us. WE pitch in.
- At Mohave Correctional we employ 600. They CANNOT bring cell phones into the facility. Doing so may result in termination. FB and twitter are blocked.
- Use of social media is situational.
- Some jobs the "look" is different. Example, Abercrombie & Fitch – flip flops and jeans. They don't understand why they can't look the same in healthcare.
- Organizational issues
- Majority of our hires are associate level. We have online courses and employees say, "Who's going to pay me to spend time on this?" They want to do it on work time. The more diverse your skills, the more I can use you. They ask, "How much do you make? I want your job."

### **Customer Service – In Person, Human to Human Interaction**

(\*asterisks indicate multiple comments about the same topic)

- Relationship building\*
- Respect of self and others\*\* (given and received)
- It's not JUST speaking, it's INTERACTING.
- One on one, one to room, a letter, email – all very different – complex.
- I understand small business wanting employees to improve in standards because of the CUSTOMER's judgment of us through that employee.
- Communication competency is huge – explanations to customers.
- In testing/evaluating IT systems, Professionalism. They represent our company and first impression is important.
- Communication, personal interaction with customer. Walmart's new hires are straight from HS.
- Example, clerk in auto parts store talking on the phone while "serving" me.
- Example, not answering the phone when talking to a customer. NOT interrupting someone talking on the phone. Customer service needs to be taught.
- Example of customer service, a Chandler restaurant provides dark or light napkins to customers depending on the color of their clothing so that the lint from the napkins won't show up.
- Need to be able to have a normal conversation.
- Now kids communicate in 140 characters or less. Students can do this. They have no idea how to TALK to a human being on a phone.
- Example, An auto tech was laid off for lack of people skills, even though he was the MOST productive tech.
- We are graded better as a store if sales assistants offer to help find an item outside the store when not available in the store. This is not the younger gen looking for this. Younger clerks like to go online and do this.
- We need them to be thinking about a JOB as part of something larger. Your job is to make sure the customer is happy and the company profits.
- Person to person skills – must be able to engage the customer.
- It's on the employer to shoot for EXEMPLARY to get at "good" customer service.
- Technology vs. face-to-face, skills must be taught.
- Need awareness that people are still purchasing IN PERSON. Need to mix skill sets – employability in a technical context.
- A Gallup poll showed that employee engagement led to customer engagement which led to profits for the firm.
- Good customer service skills – regardless of all else – are universally important.

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### PRIORITIZATION OF THE SKILLS

The next step was to rank the skills in order of importance based on the survey data for “essential,” “very important,” and “important” as is reflected in the following chart.

Frequency= Daily	Rank order of Importance	Skills	Importance Score = Essential + Very Important + Important
79	1	Collaboration	100
94	1	Initiative & Self-Direction	100
98	3	Professionalism	98
87	4	Divergent & Critical Thinking/Decision-Making, Problem Solving (Expert Thinking)	96
85	5	Legal and Ethical Practice	94
93	5	Complex Communication	94
58	7	Creativity & Innovation	93
72	8	Visual, Pattern-based/Involving Mathematics, Computational Thinking	88
66	9	Cultural Competency	86
48	10	Social Networking	79
29	11	Working Online in Geographically Distributed Teams	60

In addition to the original eleven skills, additional skills and topics were noted by participants in the survey and reappeared with regularity in the tabulated focus notes. These skills were roughly defined and prioritized to serve as a working document. The percentages in parentheses are for importance, as indicated by the percent of employers who consider this skill important, very important or essential, and frequency, as indicated by the percent of employers who said this skill is used daily in their workplaces.

### Employability Skills Definitions (3/2011 Project Team Workshop)

**Professionalism (Importance - 100%; Daily – 79%):** Standards of behavior in the workplace. Including traditionally recognized issues of: Appearance (dress/accessories, grooming); Time Management (punctuality); Work Ethic (commitment to the goals of the organization); Productivity (focus/time on task); Accountability (taking responsibility for getting the job done); and Attitude (enthusiasm, willingness to learn). It also includes issues that are challenging the traditional notion of professionalism as it affects the 21st Century workplace – such as Making judgments that distinguish between business and personal behaviors; Managing intergenerational communication, Business etiquette.

**Initiative & Self-Direction [Importance -100%; Daily – 94%]:** Controlling, guiding and managing one’s own activities. Including traditionally recognized expectations related to Motivation based on employer’s needs. It also includes issues that are challenging the traditional notion of initiative as it affects the 21st Century workplace. These focus on current expectations that employees develop ideas and contribute to the intellectual property of the company. Initiative



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and Self-Direction in this workplace includes: Exercising Judgment – when, where, how and to what degree an individual needs to act alone or collaboratively; Exercising Leadership – when, where, how and to what extent an individual takes a leadership role or chooses to serve as a member of a team.

**Collaboration [Importance – 100%; Daily – 79%]:** Communicating, planning and implementing work activities cooperatively with others in person and/or through the affordances of technology. This includes Recognizing one's strengths and limits as an effective contributor to a team, complementing the strengths of other team members to achieve common goals. Exercising Cultural Competency (intergenerational/ethnic/gender), engaging in synergistic activities honoring the contributions and drawing on the strengths of all team members.

**Complex Communication [Importance – 94%; Daily – 93%]:** Exercising competent use of traditional communication skills (reading, writing, speaking, listening) often through new technology in a manner that demonstrates good judgment/sensitivity to various situations, audiences, cultures (Includes Social Networking).

**Creativity and Innovation [Importance – 93%; Daily – 58%]:** Generating/developing new ideas, associations, products, and processes. Using new technology to identify and solve problems in a manner that reflects an understanding of the business culture and its needs.

**Cultural Competency [Importance – 86%; Daily – 66%]:** Communicating and interacting (work on projects/tasks) effectively with individuals and groups of cultures different from one's own, to achieve business/organizational mission, goals and objectives.

**Legal and Ethical Practices [Importance – 94%; Daily – 85%]:** Acting within the rules of conduct of business. Adheres to social and business boundaries, laws and codes of behavior.

**Flexibility/ Adaptability (Emergent):** Contributing to organizational productivity by demonstrating a willingness to adapt to changes in business operations and business culture. Demonstrating a willingness to learn new skills and to apply them in multiple job capacities.

**Financial Literacy (Emergent):** Applying a knowledge of global and personal economics, as well as a recognition of their relationship to each other, to a job.

**Generational Culture (Emergent):** Assimilating the values, protocols and behaviors that form the foundation of a specific employer (i.e. the business that employs them). Exercising appropriate judgment in terms of: the relationship between work and reward, the use of technology and the distinction between leadership and adherence to business rules.

**Organizational Culture (Emergent):** Assimilating oneself to a business environment by adhering to the practices a business has adopted to make it productive. Exercising curiosity about the values, mission, decision-making structure and specific jobs that define a business.

**In-Person, Human-to-Human Interaction – Customer Service (Emergent):** Responding to the needs of customers in a manner that demonstrates attentiveness, politeness and sensitivity.

**Divergent and Critical Thinking, Problem Solving, Decision Making (Expert Thinking) [Importance – 96%; Daily – 87%]:** Devising solutions to unanticipated job related issues. (I would place the remaining verbs- e.g. assessing, categorizing, recognizing limits- within the rubric for this skill.)

**Social Networking for Business [Importance – 79%; Daily – 48%]:** Employing social networking skills in a manner that supports business productivity and adheres to business ethics.

**Visual Pattern-Based Thinking Involving Math/Quantitative Procedures (Computational Thinking) [Importance – 88%; Daily – 72 %]:** Discerning systems of relationships between both spatial renditions and organizational entities.

**Working Online in Geographically Distributed Teams [Importance – 60%; Daily – 29%]:** Planning, designing, manufacturing/developing products and services online with team members in different time zones and of varying cultures.

### DEVELOPMENT OF THE STANDARDS AS SKILL SETS

All of the aforementioned became part of the draft standards offered in this report. With some reorganization of the concepts, nine standards resulted with a possible framework. The flow of dialogue suggested a couple of ideas to the project team. First, that these skills are interconnected; they occur in relationship to each other. Second, that certain skills are so fundamental as to be necessary for the development of other skills. The team began to conceive of the skills as sets. The draft standard statements reflect this perspective, with communication, collaboration, and thinking addressed as “Core Human Interaction Skills in the New Workplace.” The set of skills indicated as “Developing the New Worker” denote skills that the worker may develop in any work environment, while the “Redefining the New Workplace” skill set is focused on skills that are developed with particular attention to an industry or organization. The Draft Standards and the Conceptualization that follow are based on this framework.

#### Draft Standards Statements: Arizona’s New Workplace Skills

##### Core Human Interaction Skills in the New Workplace

1. **Complex Communication:** Employs complex communication skills in a manner that adds to organizational productivity.
2. **Collaboration:** Collaborates, in person and virtually, to complete tasks aimed at organizational goals.
3. **Expert Thinking:** Integrates a mastery of technical knowledge and skills with thinking strategies to create, to innovate, and to devise solutions.

##### Developing the New Worker

4. **Professionalism:** Conducts oneself in a professional manner appropriate to organizational expectations.
5. **Initiative and Self-Direction:** Exercises initiative and self-direction in the workplace.
6. **Intergenerational and Cross-Cultural Competence:** Interacts effectively with different cultures and generations to achieve organizational mission, goals, and objectives.

##### Redefining the New Workplace

7. **Organizational Culture:** Functions effectively within an organizational culture.
8. **Legal and Ethical Practices:** Observes laws, rules, and ethical practices in the workplace.
9. **Financial Practices:** Applies knowledge of finances for the profitability and viability of the organization.

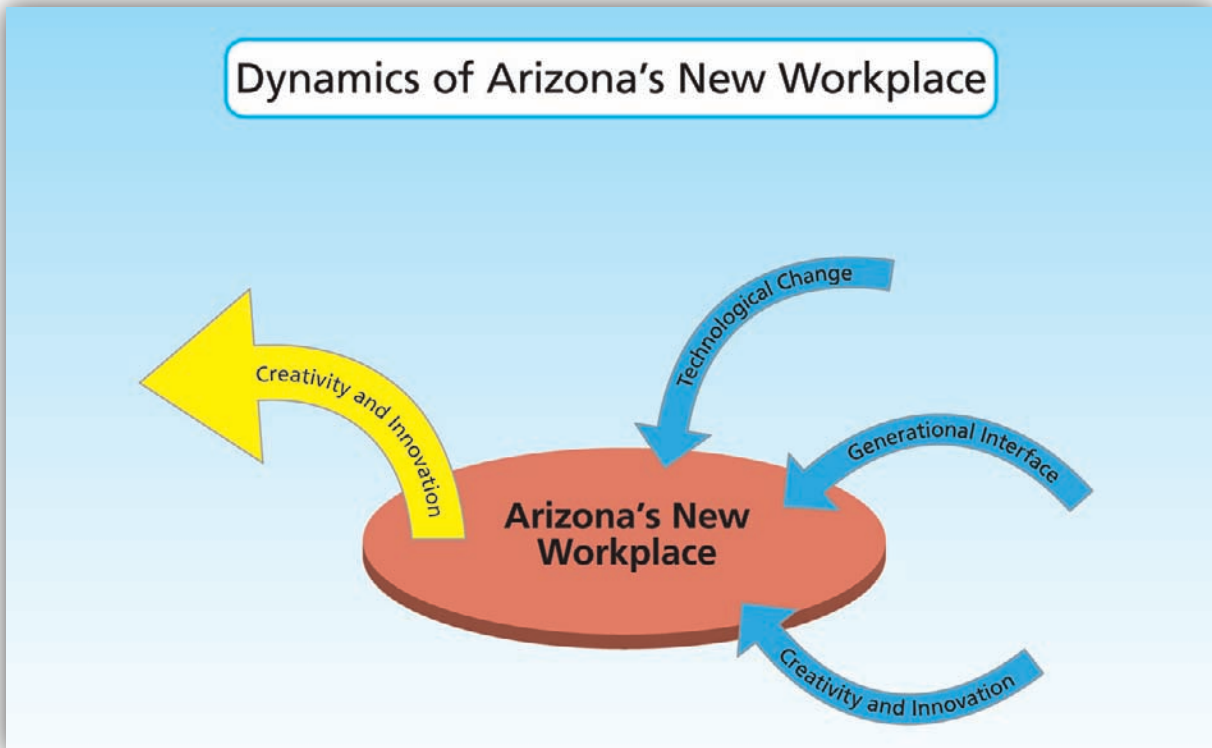
ARIZONA'S NEW WORKPLACE SKILL CONCEPTUALIZATION



The nine skills as sets with Core Human Interaction Skills as foundational to the development of other skills for the Worker in the New Workplace

### THE DYNAMICS OF ARIZONA'S NEW WORKPLACE

Additionally, the dialogue pointed toward the workplace as an increasingly dynamic space with a number of key drivers: rapid technological change, the interaction of multiple generations working side by side, and the pace of innovation, all of which place an increased demand for creativity and innovation on the workplace. This combination of factors constitutes Arizona's "new" workplace and the need to address workplace skills within the context of these dynamics.



**DRAFT STANDARDS AND MEASUREMENT CRITERIA** are presented to the Commission for their consideration with this report. The standards and measurement criteria were developed based on the results of the regional focus groups and are open to Commission review in anticipation of Commission adoption in July 2011.

**1. Complex Communication: Employs complex communication skills in a manner that adds to organizational productivity.**

- Demonstrates mastery of traditional communication skills in reading, writing, speaking, and listening within organizational contexts.
- Uses technologies and social media appropriately to engage various audiences.
- Exchanges knowledge and processes among team members, colleagues, and clients.
- Communicates effectively with people of different cultures, generations, and life/work experiences in different situations.

**2. Collaboration: Collaborates, in person and virtually, to complete tasks aimed at organizational goals.**

- Applies personal strengths to enhance the effectiveness of the team.
- Builds on strengths and contributions of others to achieve common goals.
- Works cooperatively with different cultures and generations.
- Optimizes technology to collaborate with others.
- Earns trust of partners and team members.
- Exchanges essential information among collaborators.
- Exercises shared leadership

**3. Expert Thinking: Integrates a mastery of technical knowledge and skills with thinking strategies to create, to innovate, and to devise solutions.**

- Recognizes the existence of a problem despite evidence to the contrary.
- Engages in continuous learning through inquiry and reflection.
- Exhibits expertise by asking relevant questions and listening actively.
- Uses multiple thinking strategies, such as critical thinking, divergent thinking, problem solving, and decision making, to determine a course of action.
- Takes action based on confidence in mastery.
- Analyzes evidence based on mastery knowledge to solve problems.
- Makes a well-reasoned case supported by evidence and mastery knowledge to explain conclusions.

**4. Intergenerational and Cross-Cultural Competence: Interacts effectively with different cultures and generations to achieve organizational mission, goals, and objectives.**

- Uses relevant intergenerational and cross-cultural communication that acknowledges differences.
- Honors the contributions of diverse partners and team.
- Exercises cultural sensitivity while working in the global marketplace.
- Promotes intergenerational understanding through active listening and respectful communication.
- Contributes to an environment that enables different cultures and generations work together successfully.
- Respects generational differences regarding the use of technology at the workplace.

**5. Professionalism: Conducts oneself in a professional manner appropriate to organizational expectations.**

- Adheres to organizational protocol, such as behavior, appearance, and communication.
- Manages time in accordance with organizational expectations, including punctuality, productivity, and time on task.
- Represents the organization in a positive manner that reflects its mission and goals accurately.
- Performs assigned tasks with a “can do” attitude.
- Makes appropriate distinctions between personal and work-related matters.
- Produces work that reflects professional pride.

**6. Organizational Culture: Functions effectively within an organizational culture.**

- Articulates organizational history, structure and underlying vision, mission, values, and goals.
- Meets expectations of the hiring organization regarding time commitment, dress code, communication protocols, jargon of the job, safety, and business procedures and practices.
- Demonstrates skills needed to maintain organization's expectations, such as teamwork, positive attitude, interaction with others, chain of command, initiative, informal learning, adherence to safety requirements, and organizational policy and procedures.
- Integrates organizational values in performance of work.
- Applies technology to benefit the organization's culture.
- Demonstrates etiquette and manners appropriate to the organizational culture.
- Embodies organizational culture in customer service.

**7. Legal and Ethical Practices: Observes laws, rules, and ethical practices in the workplace.**

- Respects the organization's physical and intellectual property.
- Demonstrates loyalty to the organization, its mission, and its resources.
- Reports to supervisor conditions and practices that are harmful to workers.
- Adheres to the policies and procedures of the organization.
- Follows all applicable local, state, and federal laws.
- Takes responsibility for one's actions in the workplace, such as disclosing personal mistakes to supervisor.
- Manages resources for the good of the organization.
- Acts with integrity.
- Interacts respectfully with co-workers and customers.

**8. Financial Practices: Applies knowledge of finances for the profitability and viability of the organization.**

- Exhibits competence in personal and organizational financial management.
- Articulates financial goals and strategies of the organization.
- Contributes to organizational profitability.
- Acts as a responsible steward of organizational resources.

**9. Initiative and Self-Direction: Exercises initiative and self-direction in the workplace.**

- Takes action without direction within the boundaries of one's job.
- Exercises leadership and self-direction within organizational structure.
- Asks questions and seeks information as needed, exercising curiosity.
- Pursues opportunities to learn new skills.
- Seeks responsibilities beyond one's scope of work.
- Generates ideas, opportunities, and strategies for the organization, contributing to its resources and goals, such as intellectual property and improved products and services.
- Demonstrates focus and a drive for results.
- Assesses consequences of potential actions.
- Pursues career advancement opportunities within organization or field
- Engages in informal on-the-job learning within the organization.
- Adapts to changing conditions/situations and expectations.
- Exercises judgment on when, where, how and to what degree one acts alone or collaboratively.

### **MOVING FORWARD**

The Workplace Employability Skills Project Team work in the near future includes:

1. Continuing the employers' role in the process in order to develop sample rubrics that manifest the skills indicated by the draft standards and measurement criteria;
2. Creating a format for contextualized scenarios based on the rubrics for a pilot assessment in spring 2012;
3. On July 17, returning to the Commission to request adoption of the standards, and at that time, providing a demonstration of an assessment rubric and scenarios for one or two skills.

### **CONCLUSION**

“Listening to the Voices of Arizona Business and Industry” has afforded a fresh perspective on the critical skills needed for getting and keeping NOT just a job – but to finding oneself within the ever-changing world of work. In preparing Arizona Career and Technical Education students with a full array of technical AND workplace skills, Arizona, this nation, and, indeed, the world will be better served.





Arizona Department of Education and Arizona State University

Arizona Career and Technical Education  
Skill Standards Assessment System



## Arizona Skill Standards Commission

2010-2011

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Carolyn Warner, President, Corporate Education, Inc.

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# Arizona Career and Technical Education Skill Standards Assessment System



## Meeting of the Arizona Skill Standards Commission

Wednesday, October 20, 2010 • 8:30 a.m. – 11:30 a.m.

Board Room 444 • ASU Cronkite School of Journalism and Mass Communication • 555 N Central Avenue, Phoenix AZ

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### PRESENTATION AND FACILITATED DIALOGUE

#### Critical Workplace Skills: Sharing Perspectives

*Joyce Malyn-Smith, Director and Joe Ippolito, Senior Project Director  
Strategic Initiatives in Workforce and Human Development  
Education Development Center, Inc., Newton, MA*

**JOYCE MALYN-SMITH PRESENTED** a PowerPoint with definitions and examples of “Critical Emerging Workplace Skills” prior to turning the discussion over to Joe Ippolito for facilitation.

#### GENERAL COMMENTS ABOUT INFORMATION PRESENTED

- I’m concerned about leaving behind basic skills.
- A weakness in the young is the inability to interact with people rather than machines.
- New employees need general Business Etiquette.

[Joe] The intent is NOT to lose traditional skills but to ALSO consider emerging skills.

- Application must be emphasized, must be translated into the real world. The abstraction level of these emerging skills is high, the headings are academic.

[Joe] If these skills are present, how do you see them applied?

- Young people are instructing managers in new applications.
- Application in BUSINESS LINGO is important.
- If we can’t DEFINE it, we can’t MEASURE it, and we can’t MANAGE it.
- How do we teach this – translating the concept to context?
- When doing this, what does it look like?
- There is great value in the collaboration of business and education.
- I’m disturbed that we’re talking about this as NEW. These are what senior positions are already doing. It’s just that entry level now needs [these skills] also.

[Joyce] The purpose today is to begin initial dialog. Is this list complete? Should something be removed? Are there new skills that will push Arizona to the forefront of skills nationally? Joe and I actually translate the standards into curriculum. Joyce recommended two books about the cultural use of language and space by Howard Hall: *The Silent Language* and *The Hidden Culture*.

- If we knew how to get kids competent with emerging skills, real estate would be in a much better condition.
- We’re talking about “evolution” not “revolution.” Work skills used to be all that was required in manufacturing – now need these emerging skills.
- We need to consider generational patterns and cycles.
- A technician at a crime scene deals with many forms of technology: camera, gps, pictures and records being sent by phone/pda at the scene. We’ve lost the Art of Talking, the ability to communicate directly with another human.
- Empathy is missing.
- Technology is developing faster than our ability to adapt to it culturally. I’m a parent of three “technology experts.”
- In medicine, residents are training the medical faculty in technology applications.
- We need examples from various industries in each of these “buckets” [emerging skills].

- We have 650 hours to teach auto mechanics essential and the soft skills that are a part of Skills USA. We need to introduce this as a first year college course.
- In the sciences, it's about interdisciplinary thinking.

#### **ABOUT COMPLEX COMMUNICATION**

- Social context is important.
- Young people text rather than talk – “thinking in 140 characters.”
- Generational communication skills and comfort levels need to be considered.

#### **ABOUT EXPERT THINKING**

- What does “5 years of experience” mean? Knowledge has to be related to application and experience, leading to wisdom. A connected must be made. Just because you can FIND the knowledge doesn't mean you get to sit in the “big chair.”
- Example: purchasing a home – failure to use reasoning about lending
- No way to teach this IN A CLASSROOM. It comes through experience and is not bestowed by a piece of paper.
- Interdisciplinary thinking, out of the box, taking information across disciplines AND institutions, remotely working with others for best diagnosis and treatment in medical community.
- Example: medication management – calling a team in another state to determine treatment.
- This is an integration of thinking, information [literacy] and working across disciplines.

#### **SOCIAL NETWORKING FOR BUSINESS**

- This is key today – the “new normal.”
- Contact with customer MUST BE a priority.
- A business doesn't function without a device in the pocket.
- The key element is PERSONAL contact with a customer.

#### **CULTURAL COMPETENCY**

- Example: an education institution governed by a business – different cultures – demands emotional intelligence and an ability to manage conflict when individuals are being held to another cultural standard.
- Business etiquette includes the basics and international concerns. Employees need to be able to shake hands and look another person in the eye.
- There's a difference in expectation from 30 years ago. Young people don't seem to have an expectation of what a QUALITY answer/solution should be, no feeling of what it means to be “in the ballpark.”

#### **WORKING ONLINE: GEOGRAPHICALLY DISTRIBUTED**

- Example: architects and engineers design and build digitally (this building included by the way).
- For many of us, “working online” means the office next door! I disabled technology in my building for several hours each day to force people to communicate.

## Emerging Critical Workplace Skills

New skill sets required for workplace/economic success in a global knowledge/innovation economy enabled by technology.

- **Expert Thinking:** Solving problems for which there are no rule-based/procedural solutions; rooted in deep learning experiences and pattern recognition.
- **Complex Communication:** Interacting with humans to acquire information, to explain it or to persuade others of its implications for action.
- **Creativity/Innovation:** Mental and social process of generating original ideas, concepts and associations; and develop new products/services that increase or make more efficient productivity at the workplace.
- **Cultural Competency:** Ability to communicate and interact (work on projects/tasks) effectively with individuals and groups of cultures different from one's own, to achieve business/organizational mission, goals and objectives.
- **Social Networking for Business:** Uses new social media tools/resources (blogs, micro-blogs, video resources e.g. as Youtube..) to build professional, and/or corporate brands and networks; and to serve customers.
- **Working Online in Geographically Distributed Teams:** Designing, developing and producing products/services in virtual environments when team members (as well as producers/suppliers) are geographically separated.
- **Computational Thinking:** Thinking like a computer scientist. The patterned thinking used to create new information and solve problems that draws on the routines and procedures embedded in the design of computing tools.

Joyce Malyn-Smith and Joseph Ippolito  
October 20, 2010

## Emerging Critical Workplace Skills Survey Tabulation

### 1-3. Name/Position/Years Experience

Patrick Quinn, President Qwest Arizona retired, 32  
 Art Brooks, President/CEO AZ Broadcasters Association, Treasurer/Assoc. for AM Radio & Television Stations in AZ, 38 (radio 17; ABA 21)  
 Kenny Edwards, Manager, Learning & Organizational Development, Salt River Project, 3<sup>rd</sup> largest municipal water and power provider, 34  
 Mary Ann Guerra, CEO Science/Economic Development through new company formation, 30  
 Thomas Redicks, President/Founder, Tutorlink and National Tutoring Resource Center, 40  
 Brandon Ames, CEO ABLE Information Technologies, Inc., 20  
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 Warren Whitney, Senior VP, Maricopa Integrated Health System, 5  
 Jon Cheery, VP Resolution Copper, 21  
 Cathy McKee Olesen, Senior VP General Dynamics retired, 30 (military, communications, aerospace research, development, manuf, tech service)  
 Richard Terbush, School District Superintendent retired, Self-employed consultant for Turner Construction Co, 29+/10  
 Shandrea P Solomon (for Shirley Mays, Dean), Assoc. Dean Academic Affairs, Phoenix School of Law, 16  
 David Salisbury, President/CEO, Resolution Copper Mining, 35  
 Maxine Jones, General Manager Premier Precision Group/AIMCO, Aerospace Precision Machining, 32  
 Maria Harper-Marinick, Executive Vice Chancellor/Provost Maricopa Community Colleges, 20  
 Jesse Ary, President Real Estate Corporation, 40



#### 4. To what degree are these skills emerging in your workplace?

[Melanie's note: 23 surveys were turned in. Occasionally someone checked 2 boxes, so I included both in the tabulation for all charts.]

Emerging Critical Workplace Skills	Presence							
	Not Present	Beginning to Emerge	Routinely Practiced	Anticipated (1-2 yrs)	Anticipated (3-5 yrs)	Not Anticipated	No Response	
Complex Communication		2	20	1				
Computational Thinking		6	17					
Creativity/Innovation		5	16	1			1	
Cultural Competency		10	13				1	
Expert Thinking		7	16					
Social Networking for Business		11	12				1	
Working online in Geographically Distributed Teams	1	8	13	1				
<b>Basic Verbal Communication</b>			<b>1</b>					
Emotional Intelligence		1	1					
Conflict Avoidance			1					
Integration of Context/Experience								
Inductive/Deductive Reasoning								
Traditional								
Interdisciplinary Work Teams		1						
Wisdom/Maturity				1				
Self-Awareness				1				
Collaboration w/other Orgs			vitaly important					
Vision/Leadership			desperately needed					

#### Comments:

- HIGH emergence of these skills.
- Cultural Competency is VERY Important \*\*\*
- Social networking is more prevalent. The challenge is monitoring it.
-

5. How important do you envision these skills will be to the future success of your business/industry?

Emerging Critical Workplace Skills	Importance							
	Not Important	Somewhat Important	Important	Very Important	Essential	I Don't Know	No Response	
Complex Communication			1	2	20			
Computational Thinking			2	10	11			
Creativity/Innovation			2	8	13			
Cultural Competency			4	4	15			
Expert Thinking			2	5	16			
Social Networking for Business			2	7	13		1	
Working online in Geographically Distributed Teams			5	6	10			
<b>Traditional</b>				1				
Collaboration								
Emotional Intelligence				1				
Interdisciplinary					1			
Integration of Context/Experience					1			
Inductive/Deductive Reasoning					1			
Conflict Avoidance			1					

**6. Once adopted, how frequently would you anticipate workers in your business/industry to be using these skills?**

Emerging Critical Workplace Skills	Frequency							
	Daily	Weekly	Monthly	Rarely	Not Applicable	I Don't Know	No Response	
Complex Communication	21	3	1					
Computational Thinking	16	6	2					
Creativity/Innovation	17	5				1		
Cultural Competency	20	3						
Expert Thinking	19	4	1					
Social Networking for Business	20	3	1					
Working online in Geographically Distributed Teams	13	7	1	1		1	1	
Traditional	1							
Emotional Intelligence	1							
Interdisciplinary		1						
Integration of Context/Experience	1							
Inductive/Deductive Reasoning	1							
Conflict Avoidance	1							

**WORKPLACE EMPLOYABILITY SKILLS INITIATIVE**  
**2011 STATEWIDE FOCUS GROUP FACT SHEET**  
*“LISTENING TO THE VOICES OF ARIZONA BUSINESS & INDUSTRY”*

**PURPOSE AND INTENTIONS**

ASU Workforce Education and Development Office and the Arizona Department of Education Career and Technical Education Division are sponsoring focus groups across the state means to identify workplace employability skills and collect information about their importance and frequency of use in the workplace from the perspective of Arizona business and industry leaders. Regional Joint Technical Education Districts and Chambers of Commerce, local and state, are hosting, and Carolyn Warner, former Arizona Superintendent of Public Instruction, business owner and co-chair of the Arizona Skill Standards Commission, is presiding over the meetings. Information gathered from the discussion will contribute to the development of workplace skill standards that are responsive to the needs of Arizona across all sectors. The most important voice in the room is the business and industry leader.

**LOCATIONS AND DATES**

Geographic segments across the state of Arizona have been identified for focus groups, drawing upon Joint Technical Education Districts (JTEDs) and area Chambers of Commerce as hosts, and positioning the events in such a way as to enable the broadest access for participation by Arizona business and industry. The focus groups are taking place across the state during February and early March 2011.

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**CONTINUED...**

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Sponsored by ASU Workforce Education and Development Office in partnership with  
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**JOYCE MALYN-SMITH AND JOSEPH IPPOLITO**

*EDUCATION DEVELOPMENT CENTER, INC.*

# INVITATION DRAFT

## ***LISTENING TO THE VOICES OF ARIZONA BUSINESS & INDUSTRY ABOUT WORKPLACE EMPLOYABILITY SKILLS***

**What workplace skills are essential for your entry level employees?  
Which skills do you expect them to develop to continue to be successful in your industry?**

### **Date & Time**

### **Location**

Please join business and industry in your region for a conversation about the skills needed for employment in Arizona. The meetings are sponsored by the Arizona Department of Education Career and Technical Education Division in partnership with ASU Workforce Education and Development Office and hosted by regional Joint Technical Education Districts and Chambers of Commerce, local and state. Carolyn Warner, former Arizona Superintendent of Public Instruction, Arizona business owner and co-chair of the Arizona Skill Standards Commission, will preside over the meeting.

Each focus group is 3 hours in length and offers multiple ways to engage the topic of Workplace Employability Skills. Information gathered from the discussion will contribute to the development of workplace skill standards that are responsive to the needs of Arizona across all sectors.

As a business owner or industry professional, the most important voice in the room is yours. We look forward to learning from you.

### **RSVP To**

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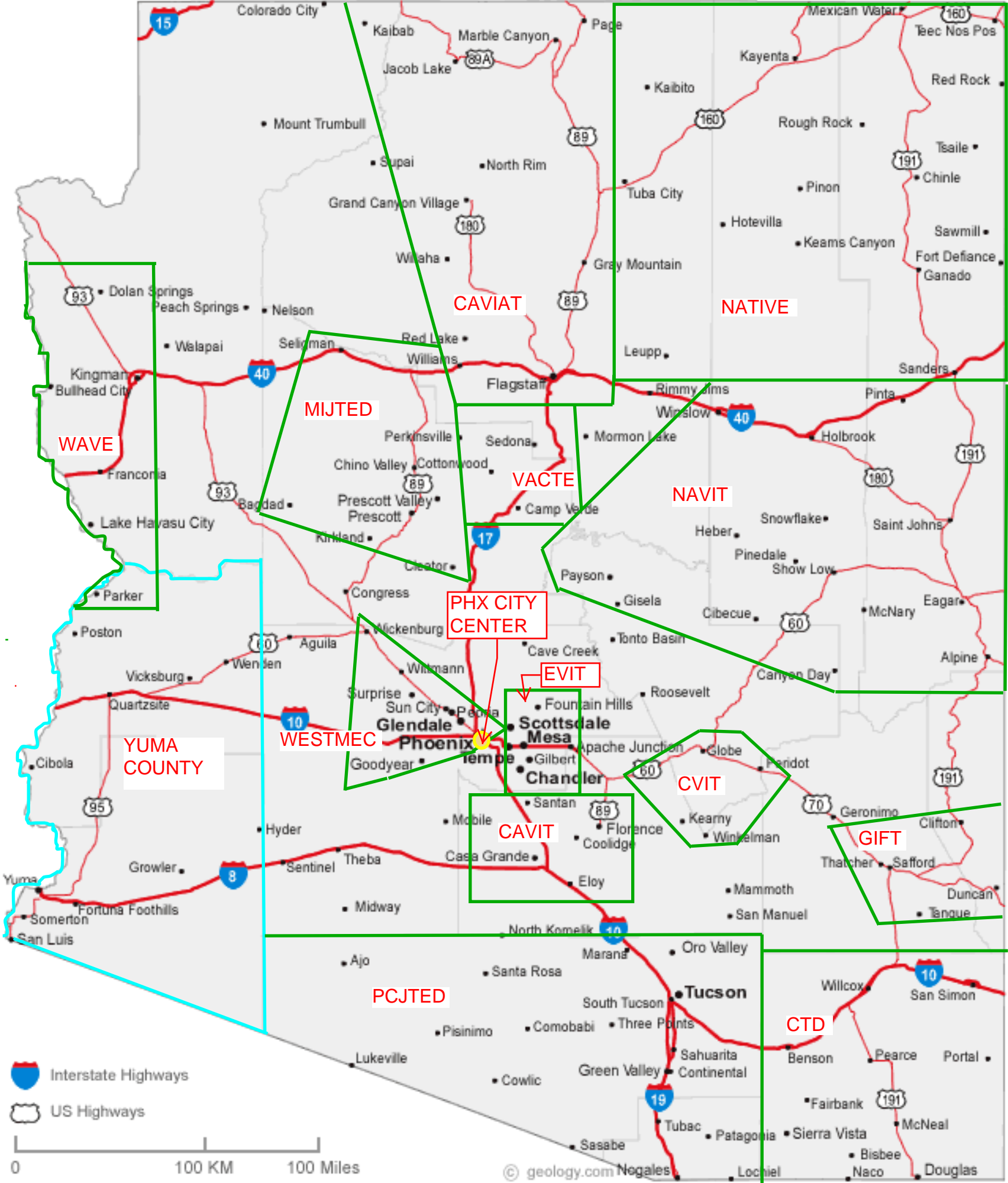
Sponsored by Arizona Department of Education Career and Technical Education Division  
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and Corporate //Education Consulting, Inc.

# Arizona CTE Skill Standards and Assessment System

Arizona Department of Education in partnership with Arizona State University

## WORKPLACE EMPLOYABILITY SKILLS PROJECT FOCUS GROUP 2011 SCHEDULE

- **February 8, 8 – 9:30 a.m. Western Maricopa Education Center**  
5487 N 99<sup>th</sup> Avenue, Glendale
- **February 14, 1 – 4 p.m. Pima County JTED**  
2855 W Master Pieces Drive, Tucson
- **February 15, 8:30 – 11:30 a.m. East Valley Institute of Technology**  
1601 W Main Street, Building 2 (behind flags on entry), Mesa, AZ 85201-6910
- **February 22, 8:15 – 10:15 a.m. Central Arizona Valley Institute of Technology**  
1789 W. Coolidge Avenue, Coolidge
- **February 24, 9 a.m. – noon Combined meeting of Coconino Association for Vocations  
Industry & Technology Mountain Institute JTED and Valley Academy for CTE**  
@ Cliff Castle Hotel and Conference Center in Verde Valley, Middle Verde Road
- **March 3, 4:00 – 5:30 p.m. Yuma County**  
@ Arizona Western College, Building 3C, Yuma
- **March 9, 9 a.m. – noon Western Arizona Vocational Education**  
@ Mohave Community College, 1977 West Acoma Boulevard, Lake Havasu City
- **March 10, 11:30 a.m. - 2 p.m., Northern Arizona Vocational Institute of Technology**  
@ Northland Pioneer College, 1001 W. Deuce of Clubs, Show Low
- **March 15, 5-8 p.m. Cobre Valley Institute of Technology (CVIT)**  
@ Miami High School Library, 4739 E. Ragus Road, Miami
- **March 22, 8:30-11 a.m. City of Phoenix Economic Development**  
@ Phoenix Council Chambers Basement, 251 W. Washington, Phoenix
- **March 24, 1-3 p.m.  
Cochise Technology District (CTD)**  
@ Cochise College Benson Center, 1025 State Route 90, Benson



Interstate Highways

US Highways

0 100 KM 100 Miles

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## Business & Industry Focus Group Participants

David Mitchell, State Director, AARP  
Jean-Marc O'Connor, Executive Recruiter, Aegis Communications Group  
Don Schmitt, Executive Director, Affiliated Consultants  
Joe Alley, Owner/Partner, Alley's Tire  
Lyndon Denton, Director of Resources, Apache Nitro Products Inc  
Vicki De Los Reyes, Area Program Supervisor, Arbor Education & Training  
Anita Payne, Prescott Design Section Leader, Arizona Public Service Co.  
Mary Jo Magaw, Branch Manager, Arizona State Credit Union  
Gina Gagen, Program Administrator, Arizona State Prison Kingman  
Becky Packer, Arizona State Prison Kingman  
Neil Turner, Warden, Arizona State Prison Kingman  
Mike McAfee, Director of Education, AZ Automobile Dealers Association  
Steve Greshem, Manager, Basha's  
Genti Basha, Branch Retail Executive, BBVA Compass Bank  
Margie Beach, Owner, Beach Front Communications  
Kirk Brimhall, General Manager, Brimhall Sand, Rock, & Bldg  
Jane Bristol, Owner, Bristol Consulting LLC  
Brenda Fagg, HR, Cascades Tissue Group Arizona  
Dan Fauth, President, Chicago Title Insurance Company  
Kenneth Benson, Area Training Manager, Chrysler Training  
Iris Dobler, HR Manager, City of Cottonwood  
Edward Farrell, Vice Mayor, City of Maricopa  
Anthony Smith, Mayor, City of Maricopa  
Jim Rives, President, City of Maricopa Economic Development  
Shelly Allen, Assistant Director of Economic Development, City of Mesa  
George Smith, Former Mayor and Superintendent of Schools, City of Mesa  
Claude Mattox, Councilman, City of Phoenix  
Cynthia Spell, Deputy Director, City of Phoenix  
Pat McCourt, City Manager, City of Willcox  
Dawn Trapp, Executive Director, Civitan Foundation  
Trish Lorenzen, Business Clerk, Classy Closets  
Barbara Hunter, Shelter Program Manager, Colorado River Regional Crisis Center  
Casey Rooney, President & CEO, Cottonwood Economic Development Council  
Mark Tufte, Branch Manager, Country Bank Cottonwood Branch  
Ken Colburn, CEO, Data Doctors  
Jan Grogan, Owner, Desert Dragons Silk Screen & Promotional Products  
Roc Arnett, Executive Director, East Valley Partnership  
Ellen Owens-Summo, Director of Health Education, Empowerment Systems/GVAHEC  
Ken Goodman, President, Environmental Strategies, Inc.  
Brian Forstall, General Manager, Forstall & Associates

Anthony Ramirez, Recruiting Manager Freeport-McMoRan Copper & Gold  
Michael Pastor, Supervisor Dist II, Gila County  
Tom Norkiewicz, Engineering Group Manager, GM – Yuma Proving Ground  
Sylvia Hernandez-Moreno, Outreach/Eligibility Coordinator, Goodwill - MWC  
Julie Engel, Executive Director, Greater Yuma Economic Development (GYEDC)  
Sandi Reynolds, GV Properties  
Jason Hatch, Vice President, Hatch Construction  
Karolyn Ericson, President, InHouse Trainer Services  
John O'Connor, Service Manager, Inland Kenworth  
Kadeon Thomas, International Rescue Committee  
Rob Turnwall, Store Manager, JC Penney  
Ed Kromer, Engineering Manager, Johnson Controls, Inc  
WallaceRicks, Vice President, Mantech Telecommunications  
Angela Barnes, Trainer, McDonalds (and Sub at San Carlos USD)  
Mike Mulcaire, Owner, Mike Mulcaire Excavating  
Don VanBrunt, Chair, Mohave County Youth Council  
Jerry Howell, Owner, Mountain Paint Center  
Cyndee Larson, Branch Manager, National Bank of Arizona  
Cynthia Ogle, VP Leadership Talent Development, National Bank of Arizona  
Kathy Sandoval, Branch Manager, National Bank of Arizona  
Tom Hull, O&M II Supervisor, Navajo Generating Station/SRP  
Jim Mineer, Navajo Generating Station/SRP  
Camille Smith, HR Manager, Navopache Electric Co-op  
Jennifer Beam, HR Assistant, Nestle Purina PetCare Company  
Donna Baker, District Manager, NPG Cable Inc of Lake Havasu City  
Mike Olsen, Owner, Olsen's Grain Inc.  
Tim Kanavel, Economic Development Program Manager, Pinal County Economic Development  
Mandy Labrie, Staffing Coordinator, Red Rock Care & Rehabilitation  
Monica Denogean, HR Director, Resolution Copper  
Melissa Rabago, Community Outreach Coordinator, Resolution Copper  
Gretchen Vorbeck, Owner, Roundtable Leadership  
Carol Rifon, HR Manager, Salt River Materials/Phoenix Cement  
Kenny Edwards Manager, Learning & Organizational Development, Salt River Project  
Darcy Renfro, VP, Director of Stem, Science Foundation of Arizona  
Brian Bickel, CEO/Administrator SE Arizona Medical Center  
Alison VanGorp, Pathways Job Developer, SEAGO  
Cindy Radamaker, Area Director HR, Sheraton Phoenix Downtown Hotel  
David Molina, Owner, Smart Solutions  
Dave Godfrey, Counselor/Owner, Snowflake High School/Dirtbuster Drycleaning & Laundry  
Sharon Rayman, Adjunct Faculty & Student Services, St. Joseph's Medical Center  
Fred Dorfman, State of Arizona DES  
Telly Stanger, Mgr of Eco Devel/Agriculture, Sulpher Springs Valley Electrical Coop.

Richard Condit, President/CEO, Sundt Construction  
Lida Cubillos, CEO, Sunrise Home Facilities  
Brad Taft, President & Chief Career Strategist, Taft Resource Group  
Tim O'Malley, Project Manager, The O'Malley Group  
Nancy Love, Public Works Director, Town of Buckeye  
Eric Orsborn, Councilman District 6, Town of Buckeye  
Janet Perry, HR/Community Services Director, Town of Clarkdale  
Mayor Hing, Mayor, Town of Superior  
Michael Woodward, Councilman District 5, Town of Surprise  
Dr. Donald Shropshire, Retired Director, Tucson Medical Center  
Thomas Redicks, Owner, TutorLink, LLC  
Deborah Darby, Coordinator, Verde Valley United Way  
Lee Boettcher, Assistant Manager, Walmart  
Tracy Stevens, Area Director, WestCare Arizona I, Inc.  
Jackie Bessler, Yavapai Broadcasting  
Chip Davis, District 3 Supervisor, Yavapai County  
Laura Jones, HR Director, Yavapai-Apache Nation  
Courtney Scott, Yavapai-Apache Nation  
Mercedes Mendivil, Director, Yuma Private Industry Council Inc (YPIC)  
Armando Leon, Recruiter, Yuma Regional Medical Center  
Justin Cook, HR Manager, Yuma Sun  
Bill Feldmeier, Self-Employed  
Alex Jacome, Entrepreneur

## Education Focus Group Participants

Merle Bianchi, Chief of Staff, Arizona Department of Education  
Dennis Fiscus, Education Program Director, Arizona Department of Education  
Tyler Grandil, CTSO Specialist/FFA, Arizona Department of Education  
Ryan Hamilton, CTSO Specialist/FBLA, Arizona Department of Education  
John Huppenthal, Superintendent of Public Instruction, Arizona Department of Education  
Tracy Rexroat, Supervisor, Arizona Department of Education  
Oleg Schvets, CTSO Specialist, Arizona Department of Education DECA  
Kym Spitali, ADE CTSO Specialist, Arizona Department of Education FCCLA  
Jane Shovlin, CTSO Specialist, Arizona Department of Education HOSA  
Gerry Corcoran, CTSO Director, Arizona Department of Education FEA  
Carrie O'Grady, CTSO Specialist, Arizona Department of Education SkillsUSA  
Laure Endfield, CTE Director, Alchesay High School  
Ruth Solomon, President, Arizona Center for Afterschool Excellence  
Tanja Eiben, Administrative Assistant, Arizona Western College  
Marcus Johnson, Dean for CTE Division, Arizona Western College  
Lynn LaBrie, Dean for Business/Workforce Development, Arizona Western College  
Jan Snyder, Manager Education Outreach, ASU Engineering  
Charles Losh, Consultant, ASU Workforce Education and Development Office  
Bryan Bullington, Principal, Benson High School  
Michael Wiles, President, Build Up Purpose  
Jac Heiss, Superintendent, Coconino Association for Vocations, Industry & Technology  
Christine Mayer, CTE Program Coordinator, Coconino Association for Vocations, Industry & Technology  
Mike Glover, JTED Director, Central Arizona Valley Institute of Technology  
Michelle Martinez, CTE Coordinator, Central Arizona Valley Institute of Technology  
Elizabeth Turner, Educator, Central Arizona Valley Institute of Technology  
Marty Baca, Board Member, Central Arizona Valley Institute of Technology  
Alma Farrell, CTE Director Maricopa, Board Member, Central Arizona Valley Institute of Technology  
Tiffany Brown, MA Preceptor, Central Arizona College  
Georgia White, Dean, Central Arizona College  
Lisa Davis, Mesa Counts Director, City of Mesa  
Rhonda Douglas, Tech Prep Coordinator, Cochise College  
Joel Todd, CTE Coordinator, Cochise Technology District  
Lee Vadnais, Community/Corporate Learning Coordinator, Coconino Community College  
Alex Wright, Community/Corporate Learning Coordinator, Coconino Community College  
Cecelia Johnson, Superintendent, Coolidge Unified School District  
Polly Abraham, CTE/Tech Prep, Coolidge Unified School District  
Sophia Perkovich, Campus President, Cortiva Institute  
Brenda Tammarine, HR, Cottonwood-Oak Creek School District  
Cindy Barnes, CTE Director, Cobre Valley Institute of Technology  
Franceen Benton, Board Clerk, Cobre Valley Institute of Technology  
Dirl Cole, Program Coordinator, Cobre Valley Institute of Technology  
Pete Guzman, Superintendent, Cobre Valley Institute of Technology  
James Fisher, Principal, East Valley Institute of Technology  
Donna Davis, Outreach/Mobilization Manager, Expect More AZ  
Nicole Magnuson, Executive Director, Expect More AZ  
Tracey Celaya, CTE Director, Florence Unified School District  
Linda O'Dell, Superintendent of Schools, Gila County  
Mark Hamilton, CTE Administrator, Gilbert Public Schools  
D.R. Saunders, Marketing Teacher, Hayden High School

Duane Tomlinson, CTE Director, Heber Overgaard Unified School District  
Shawna Schneikart, CTE Coordinator, Lake Havasu City Unified School District  
Wade McClean, Former Superintendent, Marana School District  
Don Covey, Superintendent, Maricopa County Education Service Agency  
Scott Bartle, Governing Board, Maricopa Unified School District  
Rick Neilson, Asst. Principal, Maricopa Unified School District  
Marlo Loria, CTE Director, Mesa Schools  
Linda Teague, Business Manager, Miami Unified School District  
Eric Aurand, CTE Academic Chair, Mohave Community College  
Richard Bettendorf, CTE Coordinator, Mohave Community College  
Anne Frazier, Admissions Counselor, Mohave Community College  
Robert Shupe, District Director, Mohave County Library  
Delores Crawford, Child/Family Therapist, Mohave Mental Health Clinic, Inc.  
Roger Harlow, Board Chair, Mountain Institute JTED  
Jeremy Plumb, Program Director, Mountain Institute JTED  
Ray Polvani, Superintendent, Mountain Institute JTED  
Linda Morrow, Superintendent of Schools, Navajo County Community Schools  
Betsyann Wilson, Consultant, Northland Pioneer College  
Wendell Stevens, CTE/NAVIT Coordinator, Payson Schools  
Curt Bertelsen, Director of Professional Development, Pima County JTED  
Tamara Nicolosi, CTE Instructor, Pima County JTED  
Alan Storm, Superintendent, Pima County JTED  
Patti Beltram, CTE Director, Peoria Unified School District  
Mary Jondrow, Director, Pima Santa Cruz Tech Prep Consortium  
Orlenda Roberts, County School Superintendent, Pinal County Schools  
Tammy Quetel, CTE Director, Round Valley High School  
Linda Lopeman, CTE Director, Show Low Unified District  
Alan Ramage, CTE Director, Snowflake High School  
Catherine Patterson, CTE Director, St. Johns High School  
Valerie Garcia, CTE Director, Superior Unified School District  
Sandy Breece, Superintendent/Founder, Telesis Center for Learning, Inc.  
Nori Cannell, CTE Director, Tempe Unified High School District  
Thomas Redicks, Owner, TutorLink, LLC  
Reyna Pisano, Outreach Coordinator, University of Arizona Pinal  
Leland Wiewech, Board Member, Valley Academy for CTE  
Steve Dockray, Board President, Valley Academy for CTE  
Lois Lamer, Program Director, Valley Academy for CTE  
Marv Lamer, Superintendent, Valley Academy for CTE  
Tom Moore, Business Owner, Board Member, Valley Academy for CTE  
Bobbi Firebush, Program Specialist, WACOG Head Start  
Betsy Parker, Superintendent, Western Arizona Vocational Education  
Diane McCarthy, Director, Business Partnerships, Western Maricopa Education Center  
Dean Petersen, Director of Student Services, Western Maricopa Education Center  
Stephen Weltsch, Director of Curriculum/Instruction, Western Maricopa Education Center  
Shelly Cunningham, CTE Director, Winslow High School  
Linda Buchanan, Community Education Coordinator, Yavapai College - Verde Campus  
Ginger Johnson, Director, Yavapai College Custom Training Solutions  
Marcia Jacobson, Grants Coordinator, Yavapai College Foundation  
Kim Ewing, Division Dean, Yavapai College Public Safety/Workforce Development  
Patricia Jacques

## Workforce Development Focus Group Participants

Glenn Hamer, President/CEO, Arizona Chamber of Commerce  
Marc Jackson, Job Developer, Arizona Women's Education & Employment, Inc.  
Lori Schneider, HR, City of Cottonwood  
Kathy Turner, JOBS Director, City of Flagstaff  
Kimberly Faust, Sr. Workforce Development Specialist, City of Phoenix  
Azur Priganica, Employment Specialist, International Rescue Committee  
Diane Stuart, Manager Employment/Economic Development, International Rescue Committee Tucson  
Pam Wilkinson, Executive Director, Kingman Chamber of Commerce  
Ramona Duran, WIA Program Manager, La Paz County Career Center  
Bonnie Thoi, Director, Maximus  
Lauren Farshler, WIA Representative, Mohave County Community Services  
Sherri Heidrich, WIA Program Coordinator, Mohave County Community Services  
Jen Miles, Workforce Development Manager, Mohave County Community Services  
Hannah Sagisi, COYOTE Youth Program Coordinator, Mohave County Community Services  
Dave Wolf, Manager, Mohave County Community Services  
Rebecca Smathers, Office Specialist, Mohave County Economic Development  
Mary Mendola, Coordinator, Mohave County One Stop  
Jen Smith, Director, Mohave Substance Abuse Treatment & Education Prevention Partnership  
Isabel Ruelas, Mohave Youth Program  
Deborah Slater, NACOG  
Jacqui Hedges, NACOG Community Services  
Leah Angst, Program Specialist NACOG-EWD  
Rose Toehe, WIA Director, Native Americans for Community Action, Inc.  
Ann Black, Employee Devel Specialist, North Country HealthCare  
Krista Menninger, System Recruiter, Northern Arizona Healthcare  
Elizabeth Flake, BIT Coordinator, NPC Business & Industry Training  
Philip Popovich, Phoenix Job Corp  
Mickey Ruxton, Manager, Phoenix Metro Manpower  
Debra Stevenson, Training Supervisor, Pima County One Stop  
Leah Hill, Clinical Coordinator, Scottsdale Healthcare  
Michael Dennis, Arizona Area Manager, SOS Staffing Services  
Rebecca Muniz, Branch Manager, SOS Staffing Services  
Leslie Keefer, Program Manager, Southwest Skill Center  
Loia Gray, Recruiter, Summit Healthcare  
Mila Lira, Board Member, Superior Chamber of Commerce  
Cheryl Covert, Coordinator, Town of Buckeye  
Lizet Torres, Business Development Manager, Tucson Chamber of Commerce  
Kathy Smith, Executive Director, Willcox Chamber of Commerce and Agriculture  
Lindsay Henning, Career Readiness Coordinator, Yavapai Office of Workforce Development  
Muriel Vaughn, WIA Manager, Yavapai-Apache Nation

## **CRITICAL WORKPLACE EMPLOYABILITY SKILLS**

Skill sets required for workplace/economic success in a global knowledge/innovation economy enabled by technology.

- **DIVERGENT AND CRITICAL THINKING, PROBLEM SOLVING, DECISION MAKING** (Expert Thinking)
- **COMPLEX COMMUNICATION** (Person-to-person interaction, knowledge transfer)
- **CREATIVITY AND INNOVATION** (Generating/developing new ideas, products, processes)
- **CULTURAL COMPETENCY** (Interacting with diverse groups/individuals for common purposes)
- **SOCIAL NETWORKING FOR BUSINESS** (Social media tools for branding, networking, customer service)
- **WORKING ONLINE IN GEOGRAPHICALLY DISTRIBUTED TEAMS** (Global work in virtual spaces)
- **VISUAL, PATTERN-BASED THINKING, INVOLVING MATH AND QUANTITATIVE PROCEDURES** (Computational Thinking)
- **COLLABORATION** (Communicating, planning, and implementing activities cooperatively with others)
- **LEGAL AND ETHICAL PRACTICE** (Acting within the rules of conduct for business)
- **PROFESSIONALISM** (Standards of behavior in the workplace)
- **INITIATIVE AND SELF DIRECTION** (Controlling, guiding, and managing one's own activities)

## Critical Workplace Employability Skills Survey

*The skills listed on the survey are things that have been considered to be important by others in business/industry in Arizona.*

1. Name and job title:
2. Function in business/industry:

### 3. To what degree are these skills present in your workplace?

Presence	Not Present	Routinely Practiced	Beginning to Emerge	Anticipated (1-2 yrs)	Anticipated (3-5 yrs)	Not Anticipated
COMPLEX COMMUNICATION						
VISUAL, PATTERN-BASED THINKING INVOLVING MATH /QUANTITATIVE PROCEDURES (Computational Thinking)						
CREATIVITY AND INNOVATION						
CULTURAL COMPETENCY						
DIVERGENT & CRITICAL THINKING, PROBLEM SOLVING, DECISION MAKING (Expert Thinking)						
SOCIAL NETWORKING FOR BUSINESS						
WORKING ONLINE IN GEOGRAPHICALLY DISTRIBUTED TEAMS						
COLLABORATION						
LEGAL AND ETHICAL PRACTICE						
PROFESSIONALISM						
INITIATIVE AND SELF DIRECTION						

### 4. How important are these skills to the future success of your business/industry?

Importance	Not Important	Somewhat Important	Important	Very Important	Essential	I Don't Know
COMPLEX COMMUNICATION						
VISUAL, PATTERN-BASED THINKING INVOLVING MATH /QUANTITATIVE PROCEDURES (Computational Thinking)						
CREATIVITY AND INNOVATION						
CULTURAL COMPETENCY						



Importance (cont.)	Not Important	Somewhat Important	Important	Very Important	Essential	I Don't Know
DIVERGENT & CRITICAL THINKING, PROBLEM SOLVING, DECISION MAKING (Expert Thinking)						
SOCIAL NETWORKING FOR BUSINESS						
WORKING ONLINE IN GEOGRAPHICALLY DISTRIBUTED TEAMS						
COLLABORATION						
LEGAL AND ETHICAL PRACTICE						
PROFESSIONALISM						
INITIATIVE AND SELF DIRECTION						

**5. Once adopted, how frequently do you anticipate workers in your business/industry would use these skills?**

Frequency	Daily	Weekly	Monthly	Rarely	Not Applicable	I Don't Know
COMPLEX COMMUNICATION						
VISUAL, PATTERN-BASED THINKING INVOLVING MATH /QUANTITATIVE PROCEDURES (Computational Thinking)						
CREATIVITY AND INNOVATION						
CULTURAL COMPETENCY						
DIVERGENT & CRITICAL THINKING, PROBLEM SOLVING, DECISION MAKING (Expert Thinking)						
SOCIAL NETWORKING FOR BUSINESS						
WORKING ONLINE IN GEOGRAPHICALLY DISTRIBUTED TEAMS						
COLLABORATION						
LEGAL AND ETHICAL PRACTICE						
PROFESSIONALISM						
INITIATIVE AND SELF DIRECTION						

**6. Years experience in this industry:**

**7. Size of organization (# employees):**



## WORKPLACE EMPLOYABILITY SKILLS PROJECT

# COMPOSITE SURVEY RESULTS

### *“LISTENING TO THE VOICES OF ARIZONA BUSINESS & INDUSTRY”*

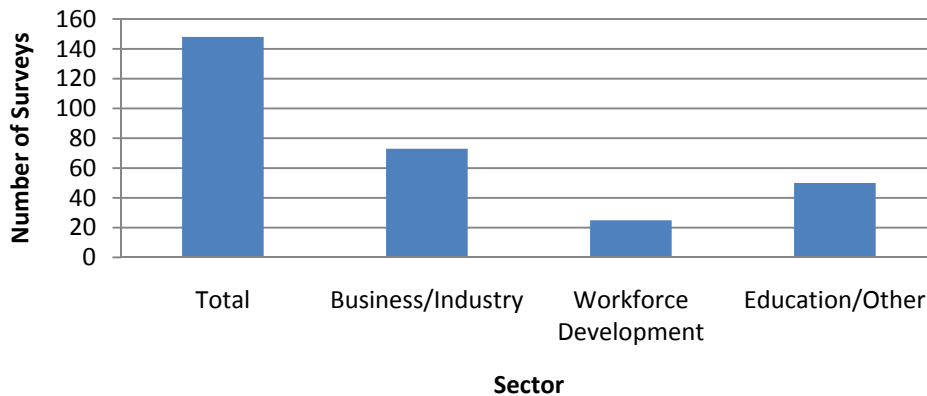
#### **SURVEY RESULTS**

A total of 148 surveys (73 Business/Industry, 25 Workforce Development, 50 Education), addressing the original 11 skills, were returned from all focus group. Data were tabulated separately for each regional focus group, as well as collectively. The survey instrument enabled the project team to collect information in three areas:

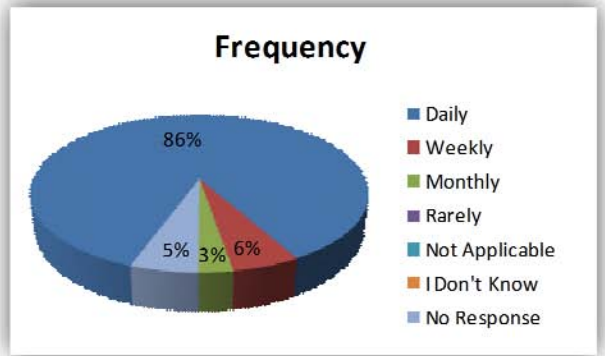
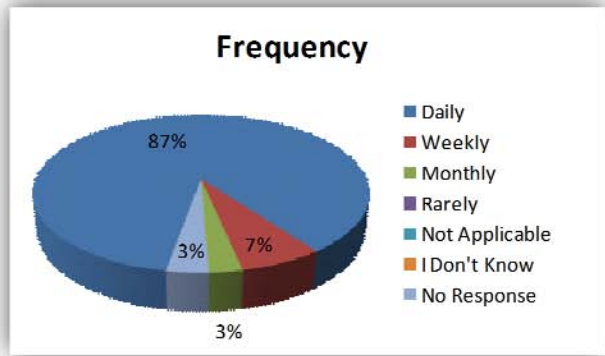
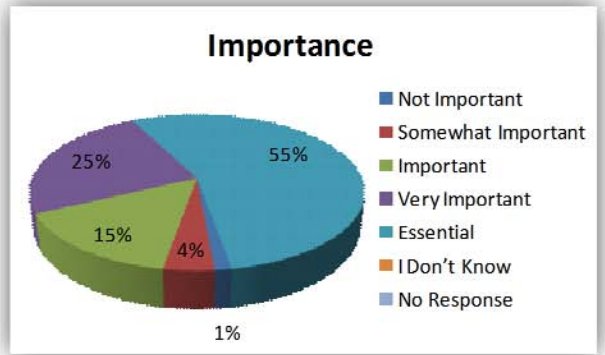
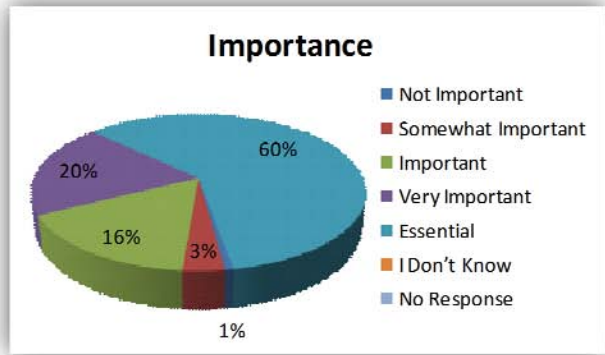
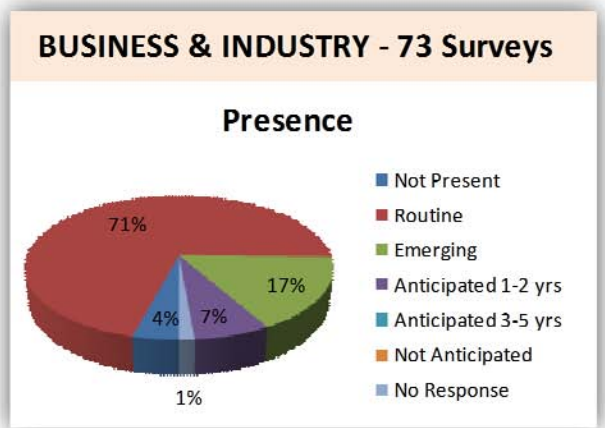
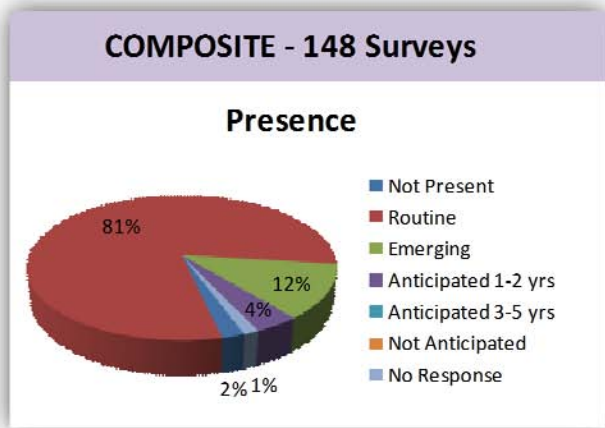
1. Presence: *To what degree are these skills present in your workplace?*
2. Importance: *How important are these skills to the future success of your business/industry?*
3. Frequency: *Once adopted, how frequently do you anticipate workers in your business/industry would use these skills?*

The composite results are laid out on the following pages by skill set and sector. For example, the results for Complex Communication on the next two pages provide responses to the questions noted above in a set of Composite graphs side by side with the segmented responses from Business & Industry, Workforce, and Education Sector participants.

### **Surveys by Participating Sector**

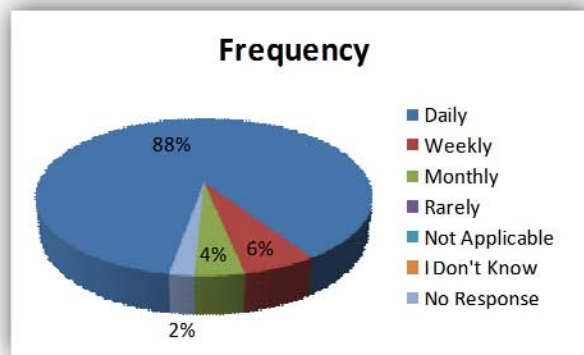
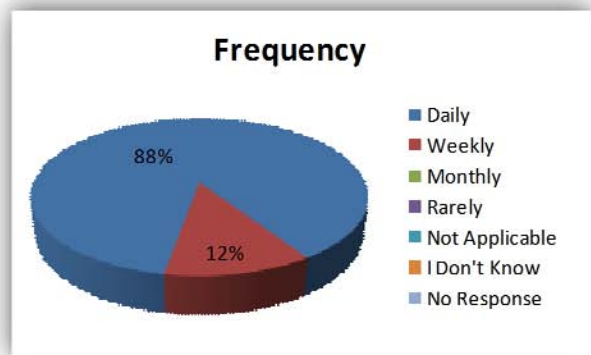
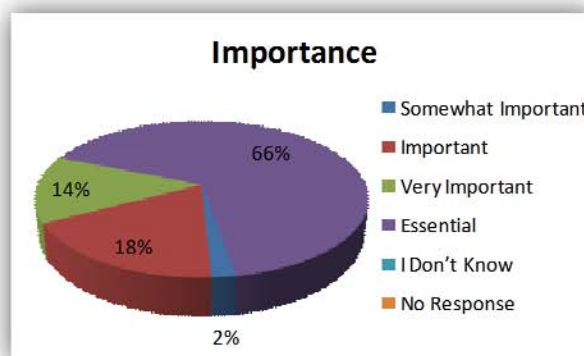
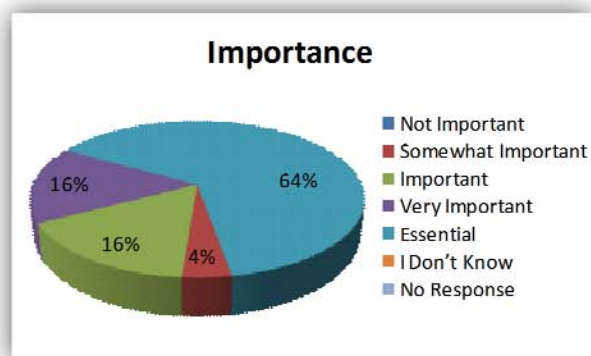
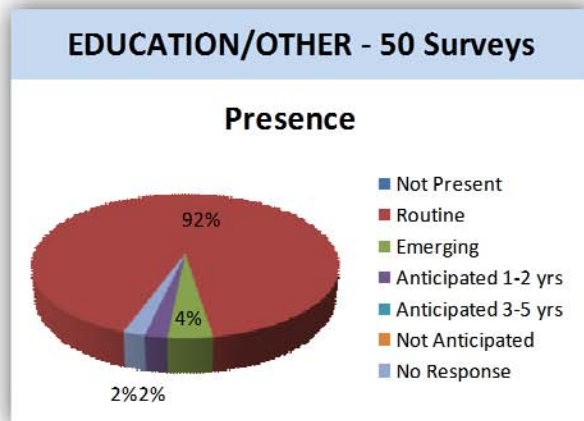
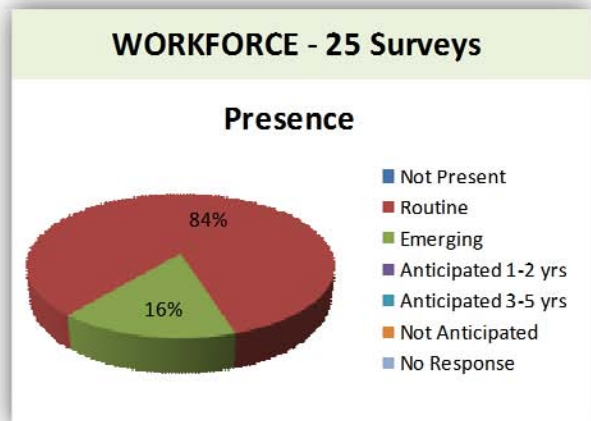


**COMPLEX COMMUNICATION** Person-to-person knowledge transfer



Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present 3	Not Important 1	Daily 129	Not Present 3	Not Important 1	Daily 63
Routine 119	Somewhat 5	Weekly 10	Routine 52	Somewhat 3	Weekly 4
Emerging 18	Important 24	Monthly 4	Emerging 12	Important 11	Monthly 2
Anticipated 1-2 yrs 6	Very Important 29	Rarely	Anticipated 1-2 yrs 5	Very Important 18	Rarely
Anticipated 3-5 yrs	Essential 89	Not Applicable	Anticipated 3-5 yrs	Essential 40	Not Applicable
Not Anticipated	I Don't Know	I Don't Know	Not Anticipated	I Don't Know	I Don't Know
No Response 2	No Response	No Response 5	No Response 1	No Response	No Response 4

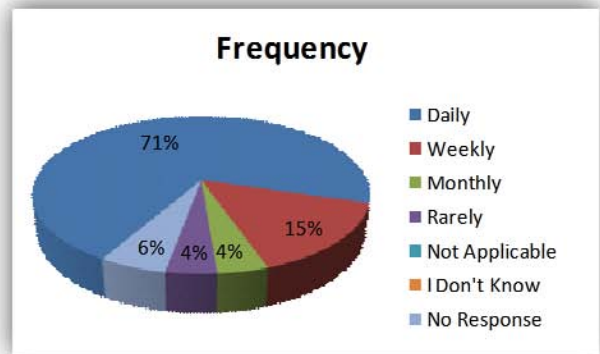
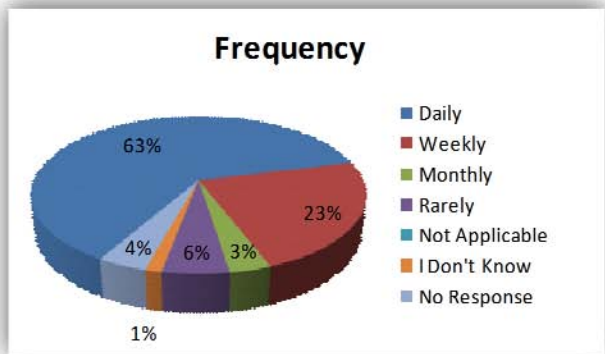
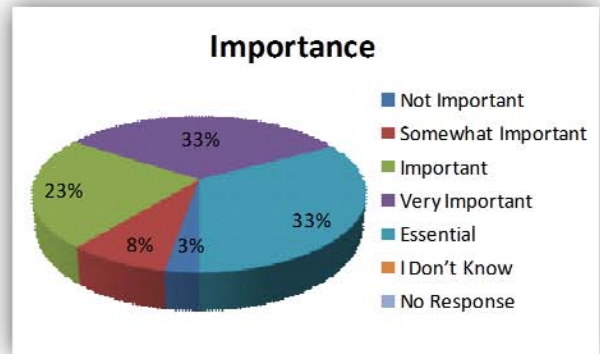
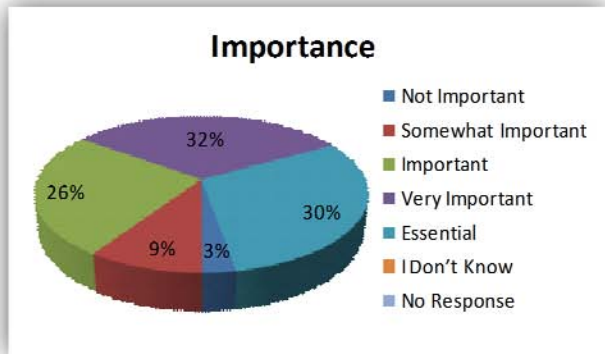
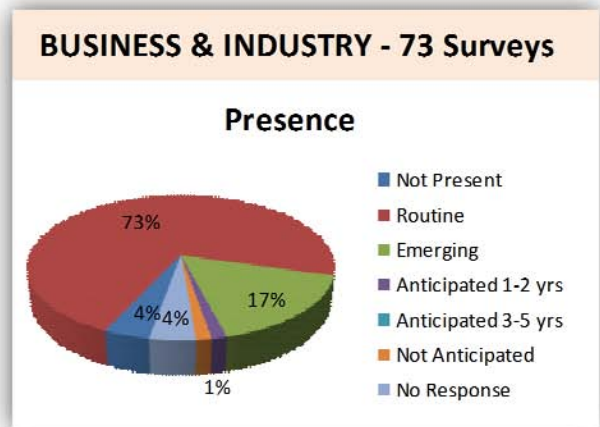
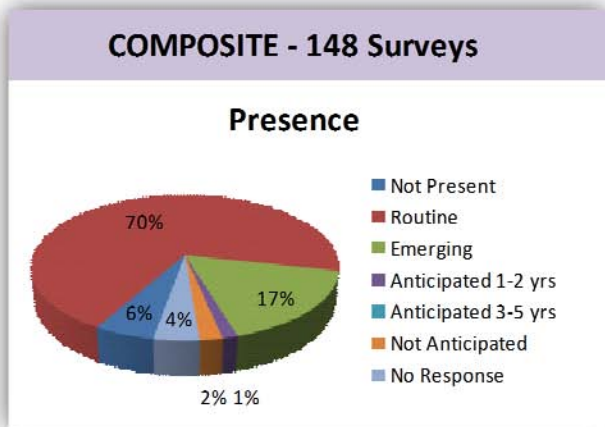
**COMPLEX COMMUNICATION** Person-to-person knowledge transfer



Survey Count		Survey Count		Survey Count		Survey Count		Survey Count		Survey Count	
Not Present		Not Important		Daily	22	Not Present		Not Important		Daily	44
Routine	21	Somewhat	1	Weekly	3	Routine	46	Somewhat	1	Weekly	3
Emerging	4	Important	4	Monthly		Emerging	2	Important	9	Monthly	2
Anticipated 1-2 yrs		Very Important	4	Rarely		Anticipated 1-2 yrs	1	Very Important	7	Rarely	
Anticipated 3-5 yrs		Essential	16	Not Applicable		Anticipated 3-5 yrs		Essential	33	Not Applicable	
Not Anticipated		I Don't Know		I Don't Know		Not Anticipated		I Don't Know		I Don't Know	
No Response		No Response		No Response		No Response	1	No Response		No Response	1

## Composite Survey Results

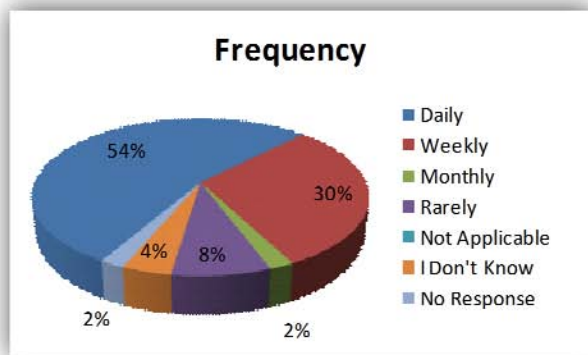
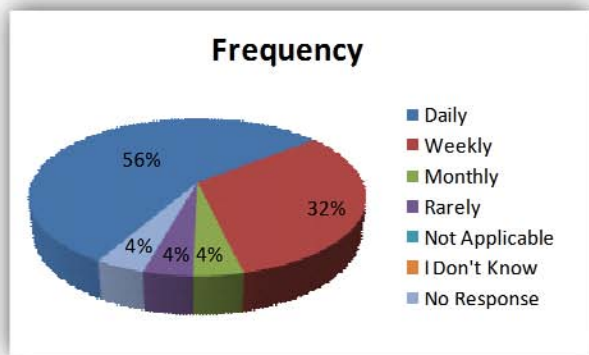
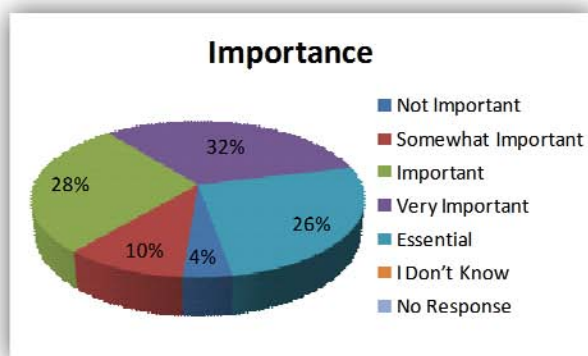
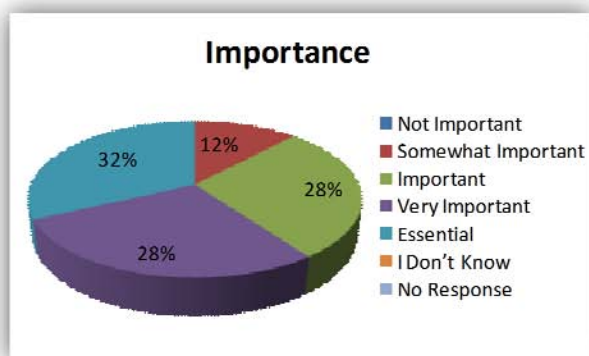
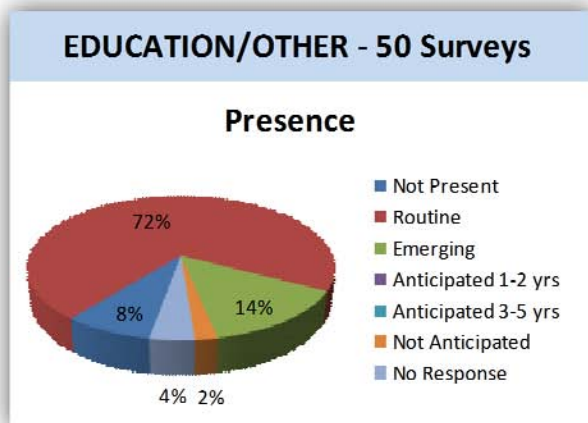
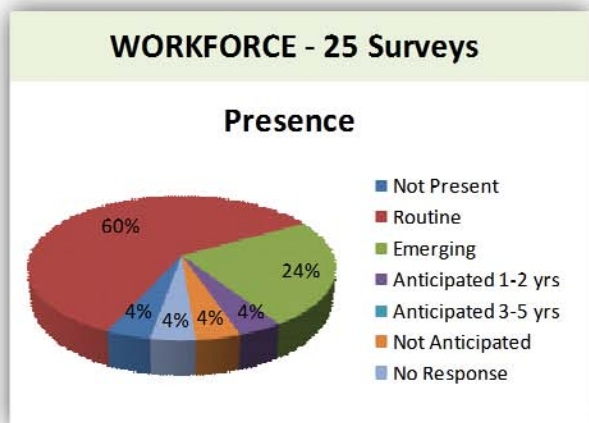
### COMPUTATIONAL THINKING Pattern-based thinking for problem solving, innovation



Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present	8	Not Important	4	Daily	93
Routine	104	Somewhat	14	Weekly	34
Emerging	25	Important	38	Monthly	5
Anticipated 1-2 yrs	2	Very Important	47	Rarely	8
Anticipated 3-5 yrs	1	Essential	45	Not Applicable	1
Not Anticipated	3	I Don't Know	1	I Don't Know	2
No Response	6	No Response	6	No Response	6
				Not Present	3
				Routine	53
				Emerging	12
				Anticipated 1-2 yrs	1
				Anticipated 3-5 yrs	1
				Not Anticipated	1
				No Response	3
				Not Important	2
				Somewhat	6
				Important	17
				Very Important	24
				Essential	24
				I Don't Know	1
				No Response	4
				Daily	52
				Weekly	11
				Monthly	3
				Rarely	3
				Not Applicable	3
				I Don't Know	1
				No Response	4



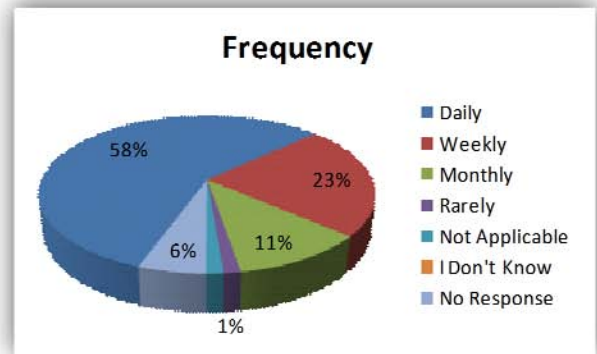
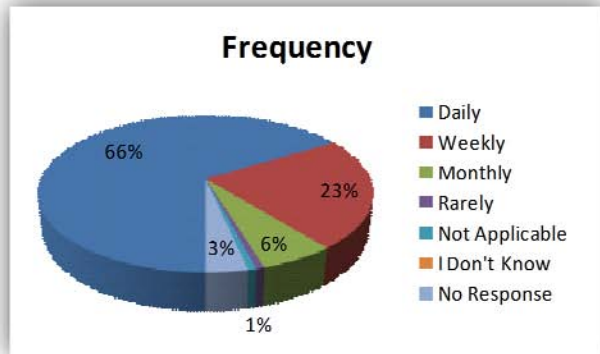
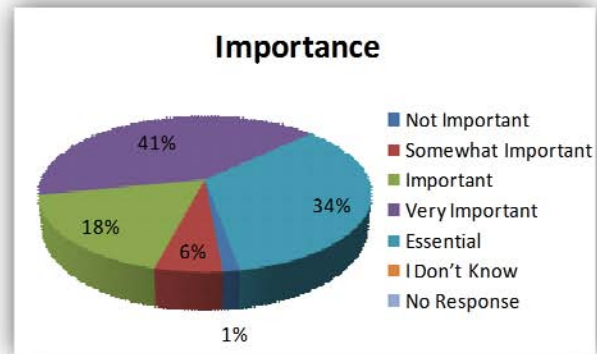
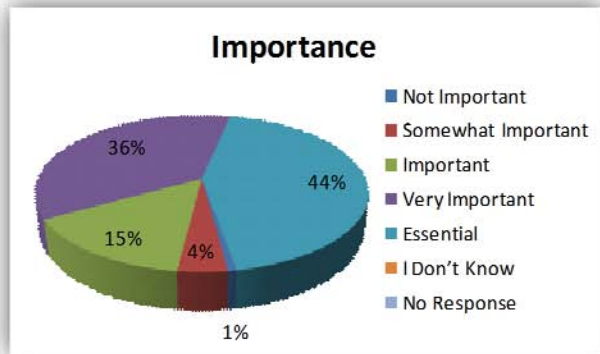
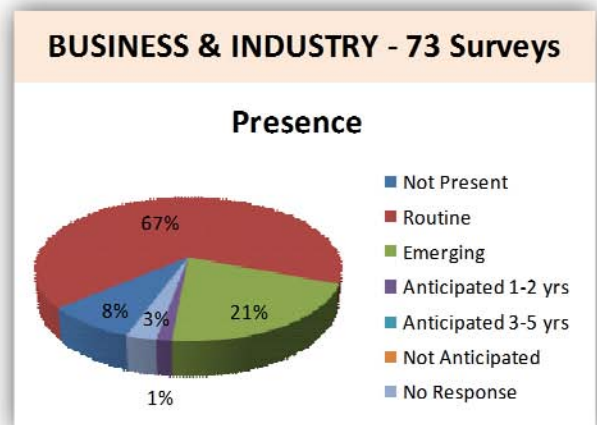
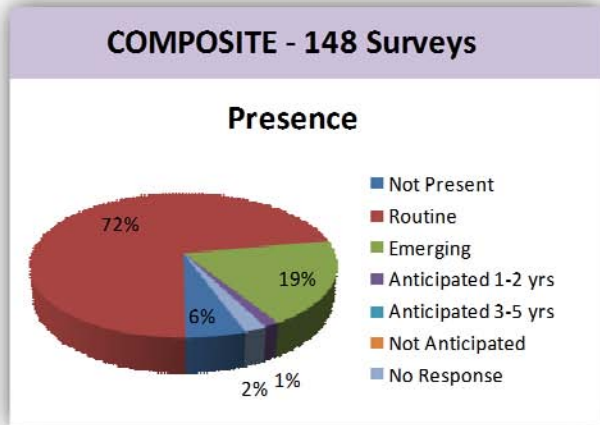
**COMPUTATIONAL THINKING** Pattern-based thinking for problem solving, innovation



Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present	1	Not Important	3	Daily	14
Routine	15	Somewhat	7	Weekly	8
Emerging	6	Important	7	Monthly	1
Anticipated 1-2 yrs	1	Very Important	7	Rarely	1
Anticipated 3-5 yrs	6	Essential	8	Not Applicable	4
Not Anticipated	1	I Don't Know	0	I Don't Know	2
No Response	1	No Response	0	No Response	1
				Not Present	4
				Routine	36
				Emerging	7
				Anticipated 1-2 yrs	16
				Anticipated 3-5 yrs	13
				Not Anticipated	1
				No Response	2
				Not Important	2
				Somewhat	5
				Important	14
				Very Important	16
				Essential	13
				I Don't Know	2
				No Response	1
				Daily	27
				Weekly	15
				Monthly	1
				Rarely	4
				Not Applicable	4
				I Don't Know	2
				No Response	1

## Composite Survey Results

### CREATIVITY & INNOVATION Generating/developing new ideas, products, processes

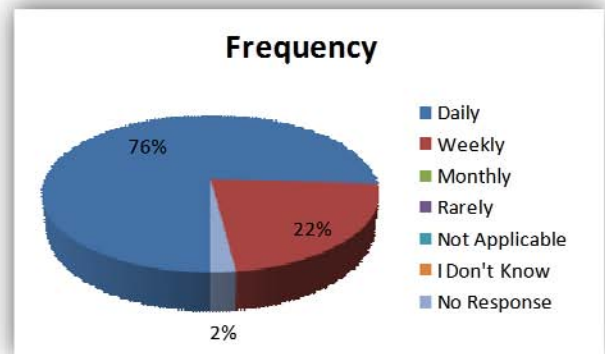
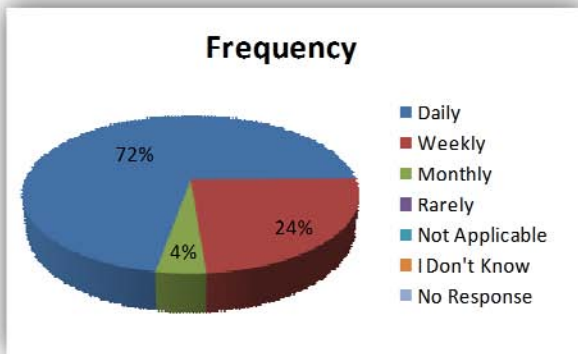
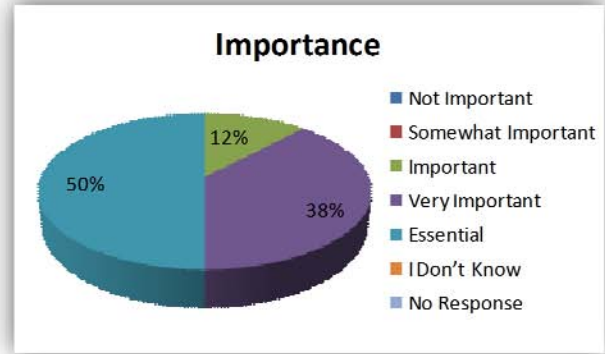
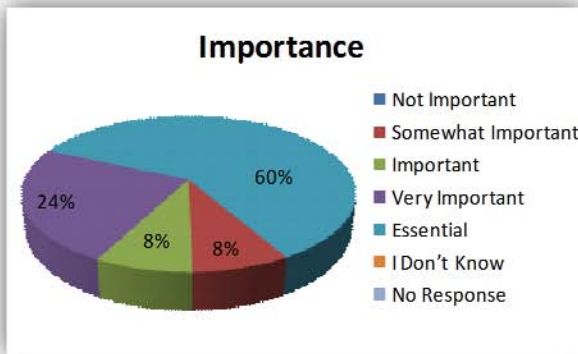
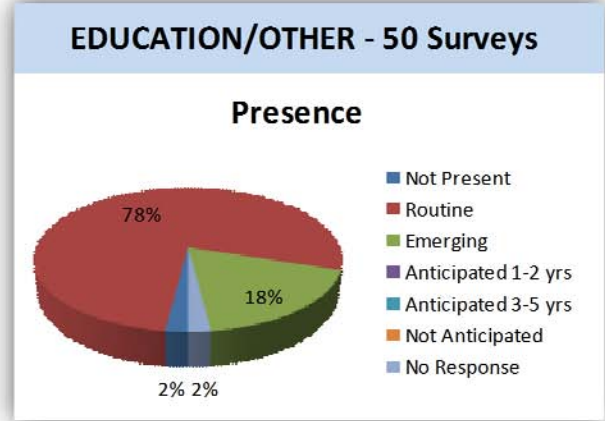
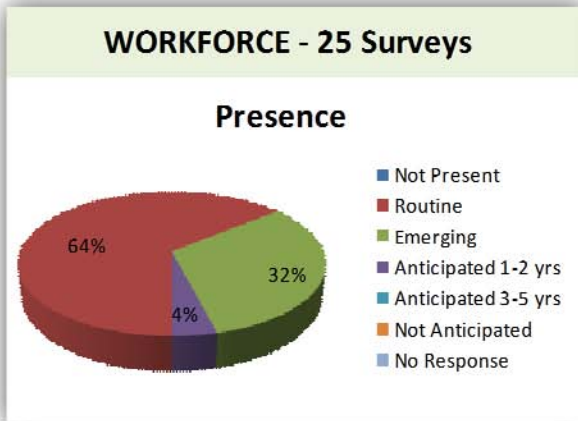


Survey Count		Survey Count		Survey Count		Survey Count		Survey Count			
Not Present	8	Not Important	1	Daily	98	Not Present	6	Not Important	1	Daily	42
Routine	107	Somewhat	6	Weekly	34	Routine	49	Somewhat	4	Weekly	17
Emerging	28	Important	22	Monthly	9	Emerging	15	Important	13	Monthly	8
Anticipated 1-2 yrs	2	Very Important	54	Rarely	1	Anticipated 1-2 yrs	1	Very Important	30	Rarely	1
Anticipated 3-5 yrs	2	Essential	65	Not Applicable	1	Anticipated 3-5 yrs	1	Essential	25	Not Applicable	1
Not Anticipated	0	I Don't Know	0	I Don't Know	0	Not Anticipated	0	I Don't Know	0	I Don't Know	0
No Response	3	No Response	0	No Response	5	No Response	2	No Response	0	No Response	4



## Composite Survey Results

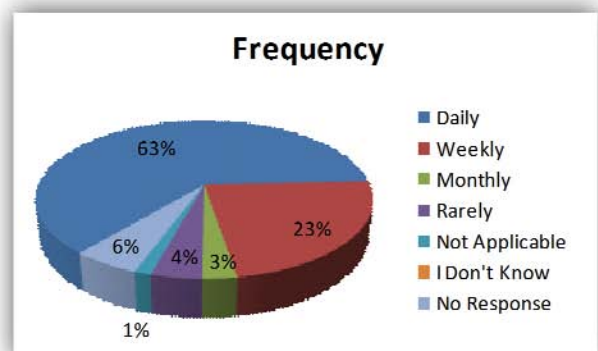
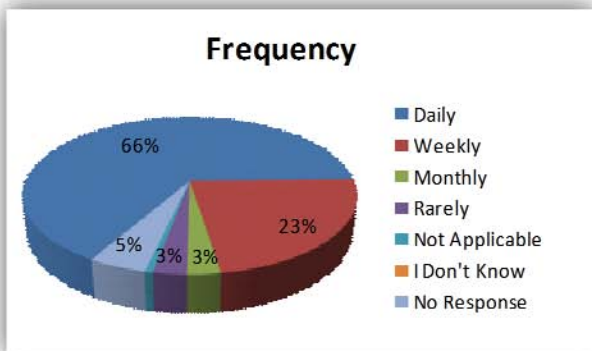
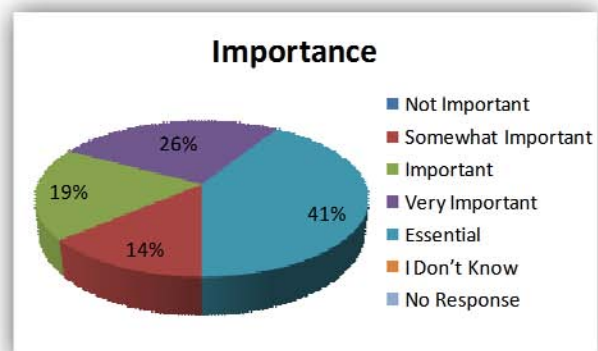
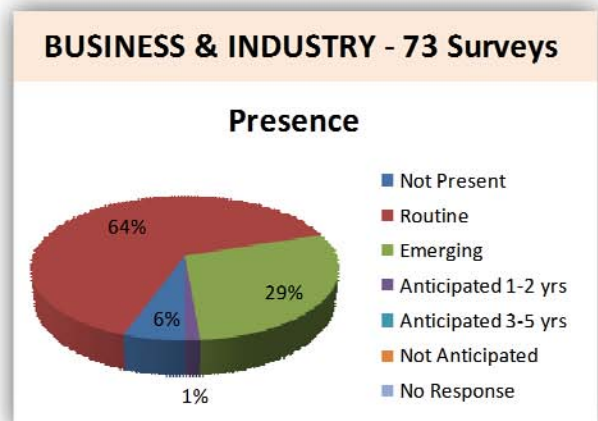
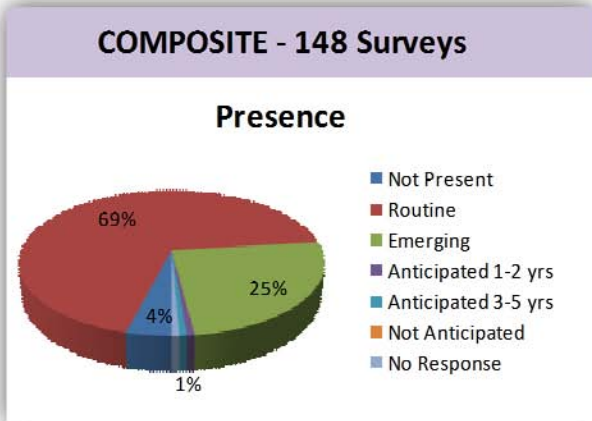
### CREATIVITY & INNOVATION Generating/developing new ideas, products, processes



Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present	Not Important	Daily	18	Not Present	Daily
Routine	Somewhat	Weekly	6	2	38
16	2	6	11	42	11
Emerging	Important	Monthly	1	5	6
8	2	1	1	Anticipated 1-2 yrs	19
Anticipated 1-2 yrs	Very Important	Rarely		Anticipated 3-5 yrs	25
1	6	Not Applicable		Not Anticipated	
Anticipated 3-5 yrs	Essential	I Don't Know		1	
Not Anticipated	15	No Response		No Response	1
No Response	I Don't Know				
	No Response				

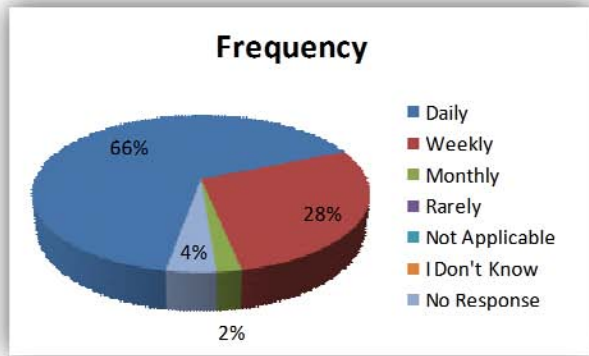
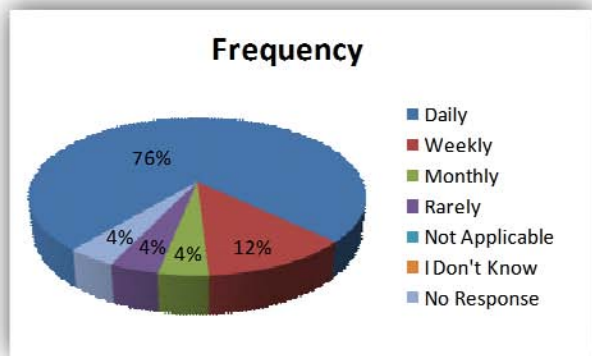
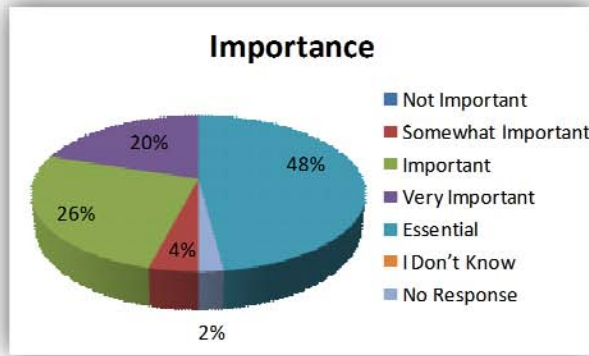
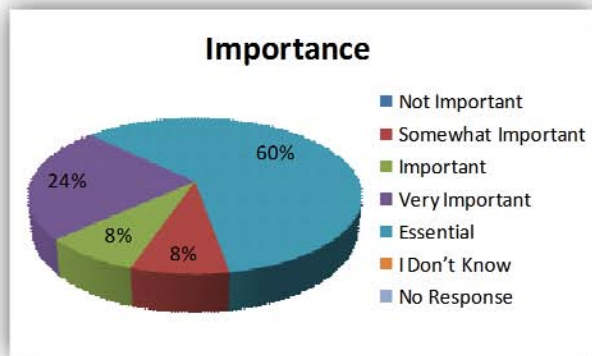
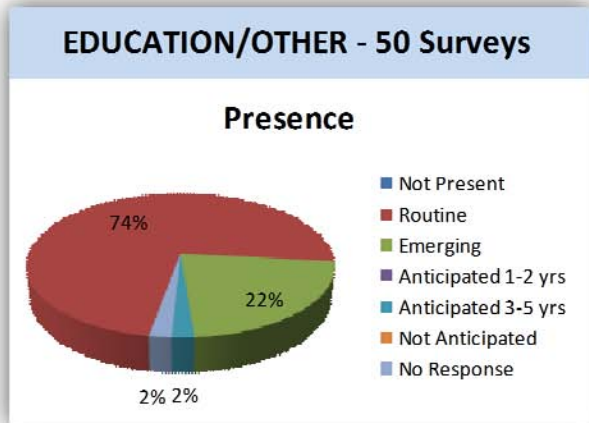
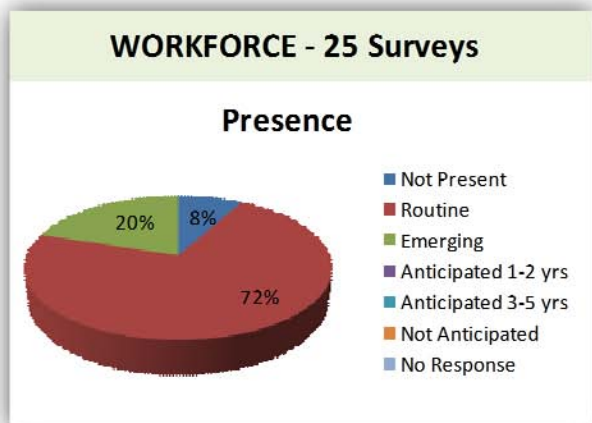
## Composite Survey Results

### CULTURAL COMPETENCY Interacting with diverse groups/individuals for common purposes



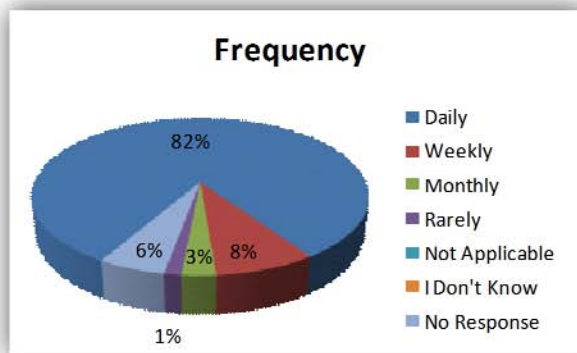
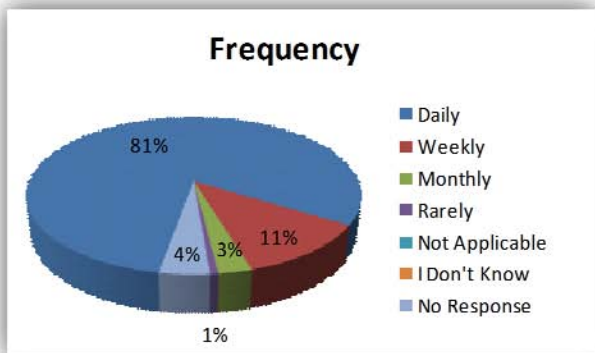
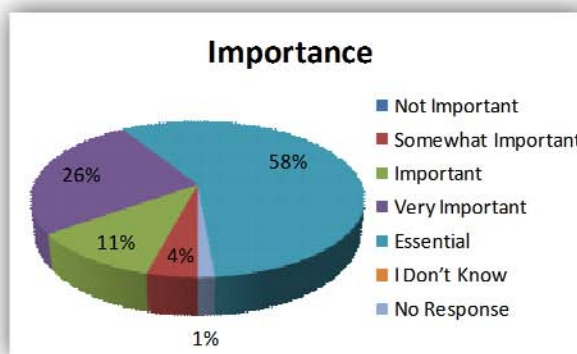
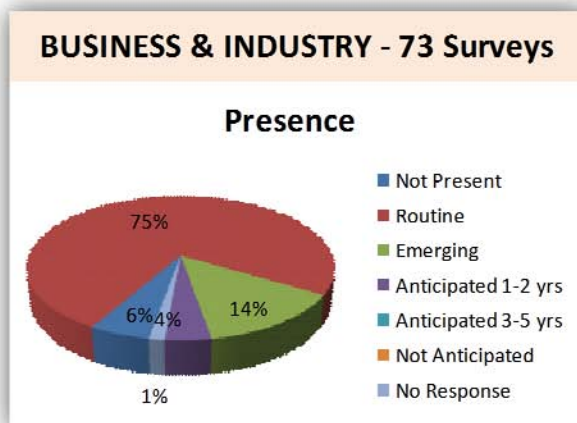
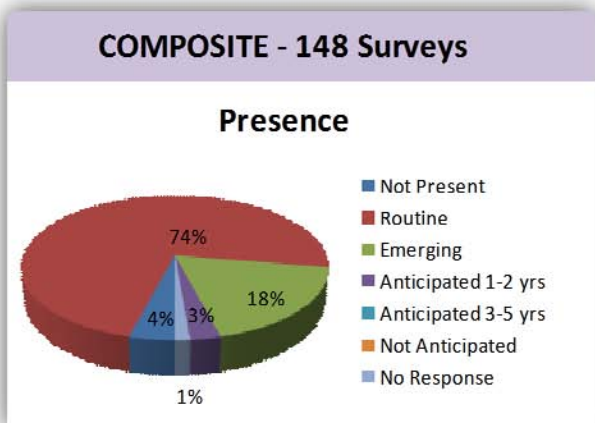
Survey Count		Survey Count		Survey Count		Survey Count		Survey Count	
Not Present	6	Not Important	14	Daily	98	Not Present	4	Not Important	10
Routine	102	Somewhat	29	Weekly	34	Routine	47	Somewhat	14
Emerging	37	Important	35	Monthly	4	Emerging	21	Important	19
Anticipated 1-2 yrs	1	Very Important	69	Rarely	4	Anticipated 1-2 yrs	1	Very Important	30
Anticipated 3-5 yrs	1	Essential	1	Not Applicable	1	Anticipated 3-5 yrs	1	Essential	1
Not Anticipated	1	I Don't Know	1	I Don't Know	1	Not Anticipated	1	I Don't Know	1
No Response	1	No Response	1	No Response	7	No Response	1	No Response	4

**CULTURAL COMPETENCY** Interacting with diverse groups/individuals for common purposes



Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present	2	Not Important	2	Daily	19
Routine	18	Somewhat	2	Weekly	3
Emerging	5	Important	2	Monthly	1
Anticipated 1-2 yrs	5	Very Important	6	Rarely	1
Anticipated 3-5 yrs	1	Essential	15	Not Applicable	4
Not Anticipated	0	I Don't Know	0	I Don't Know	0
No Response	0	No Response	0	No Response	1
				Not Present	2
				Routine	37
				Emerging	11
				Anticipated 1-2 yrs	11
				Anticipated 3-5 yrs	1
				Not Anticipated	0
				No Response	1
				Not Important	2
				Somewhat	2
				Important	13
				Very Important	10
				Essential	24
				I Don't Know	0
				No Response	1
				Daily	33
				Weekly	14
				Monthly	1
				Rarely	2
				Not Applicable	4
				I Don't Know	0
				No Response	2

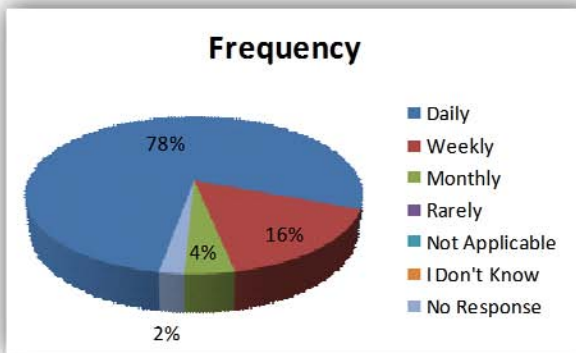
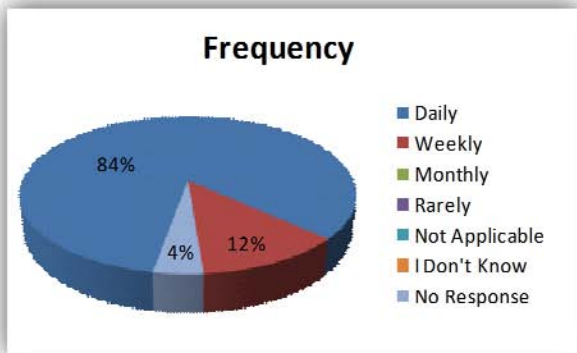
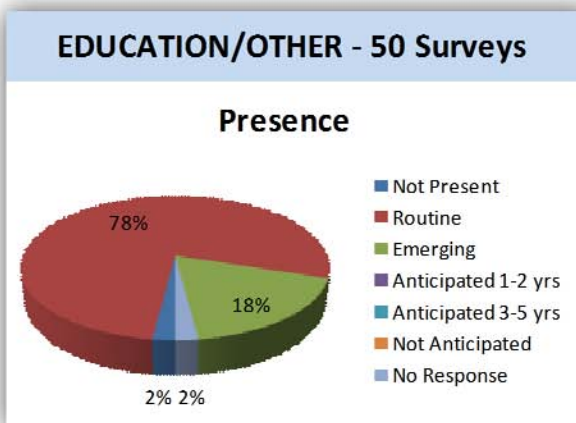
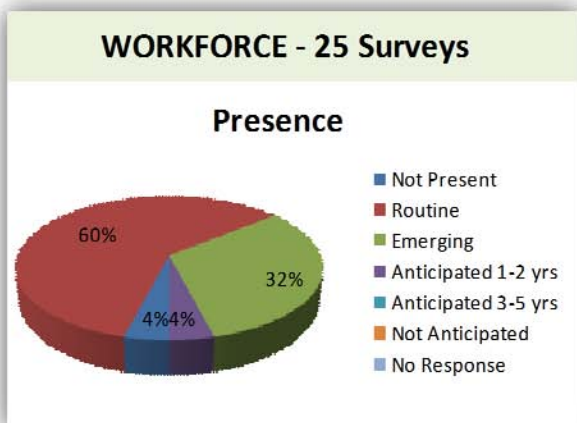
**EXPERT THINKING** Divergent and critical thinking, problem solving, decision making



Survey Count		Survey Count		Survey Count		Survey Count		Survey Count		Survey Count	
Not Present	6	Not Important	6	Daily	120	Not Present	4	Not Important	3	Daily	60
Routine	109	Somewhat	20	Weekly	17	Routine	55	Somewhat	8	Weekly	6
Emerging	27	Very Important	40	Monthly	4	Emerging	10	Important	19	Monthly	2
Anticipated 1-2 yrs	4	Essential	81	Rarely	1	Anticipated 1-2 yrs	3	Very Important	42	Rarely	1
Anticipated 3-5 yrs	1	I Don't Know	1	Not Applicable	0	Anticipated 3-5 yrs	1	Essential	42	Not Applicable	0
Not Anticipated	0	No Response	1	I Don't Know	6	Not Anticipated	0	I Don't Know	1	I Don't Know	4
No Response	2	No Response	1	No Response	6	No Response	1	No Response	1	No Response	4

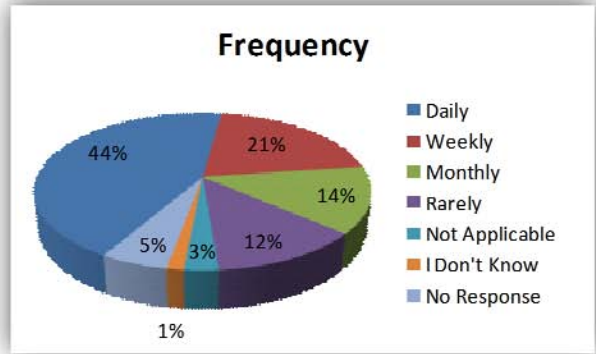
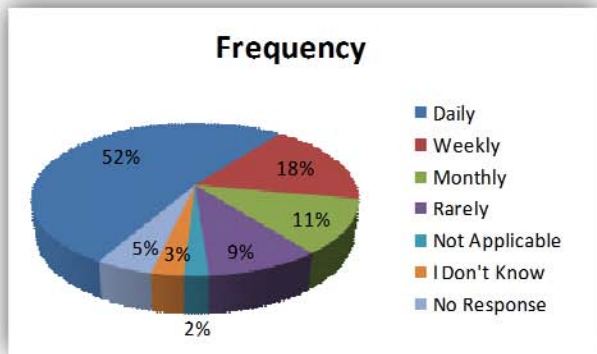
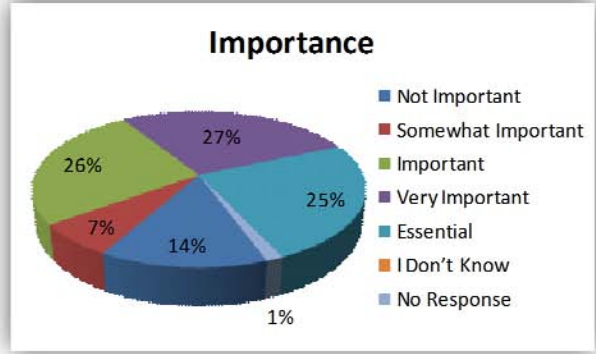
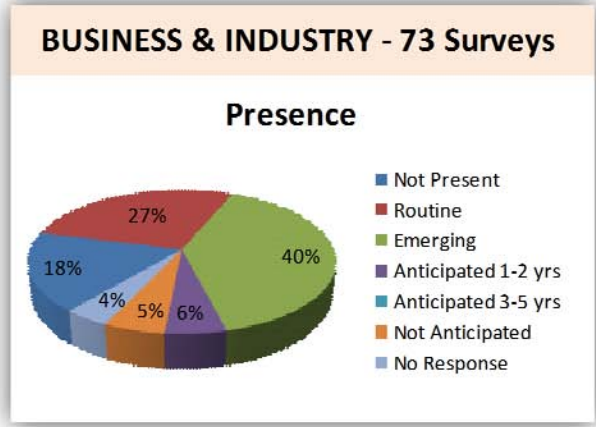
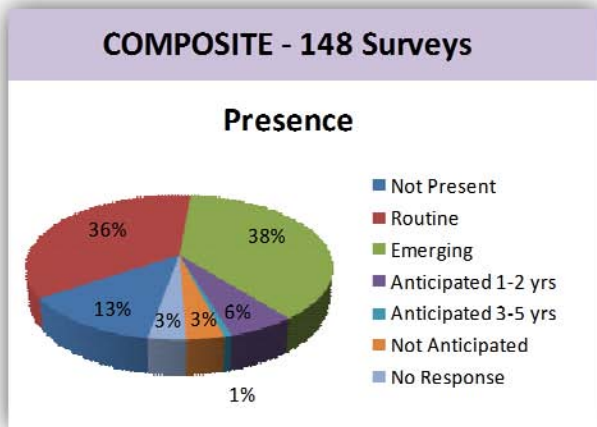


**EXPERT THINKING** Divergent and critical thinking, problem solving, decision making



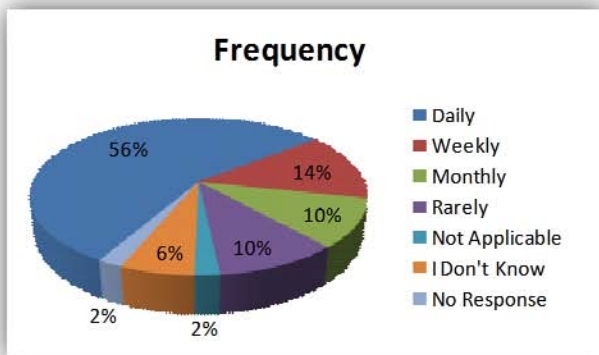
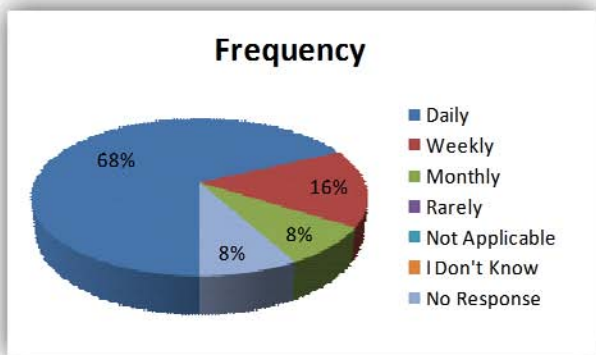
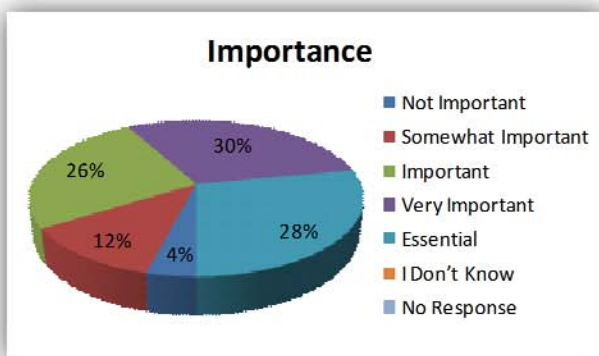
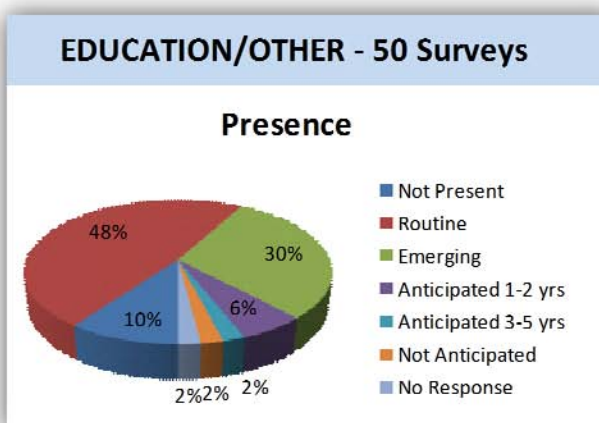
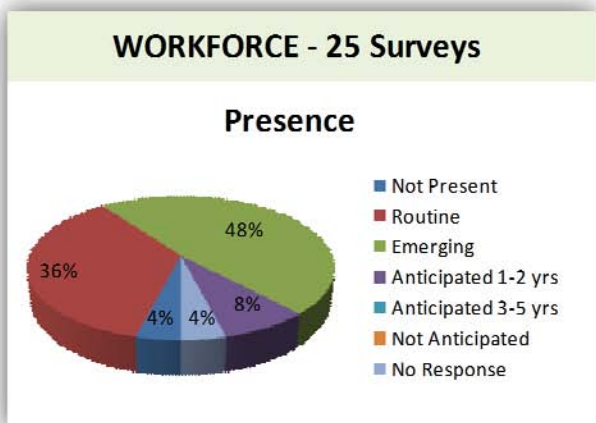
Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present	1	Not Important	1	Daily	21
Routine	15	Somewhat	1	Weekly	3
Emerging	8	Important	3	Monthly	3
Anticipated 1-2 yrs	1	Very Important	8	Rarely	2
Anticipated 3-5 yrs	1	Essential	13	Not Applicable	2
Not Anticipated	1	I Don't Know	2	I Don't Know	1
No Response	1	No Response	1	No Response	1
				Not Present	1
				Routine	39
				Emerging	9
				Anticipated 1-2 yrs	13
				Anticipated 3-5 yrs	26
				Not Anticipated	1
				No Response	1
				Not Important	2
				Somewhat	9
				Important	13
				Very Important	26
				Essential	52
				I Don't Know	2
				No Response	1
				Daily	39
				Weekly	8
				Monthly	2
				Rarely	2
				Not Applicable	2
				I Don't Know	1
				No Response	1

**SOCIAL NETWORKING FOR BUSINESS** Social media tools for branding, networking, customer service



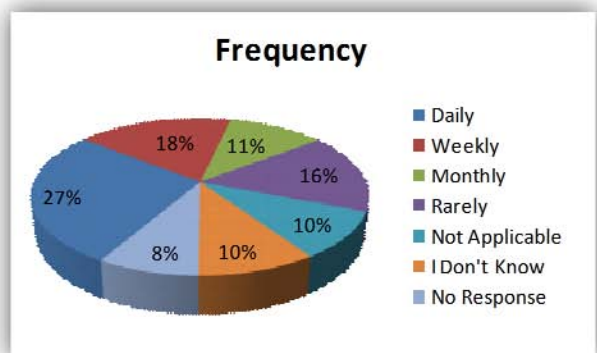
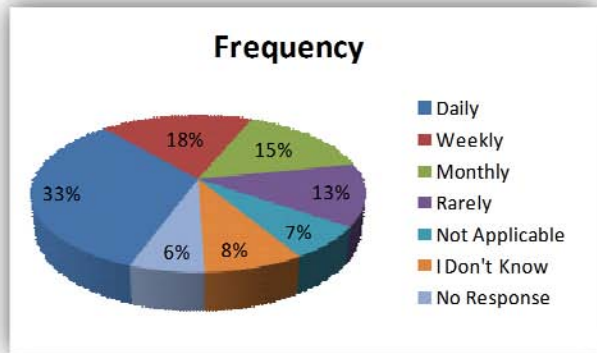
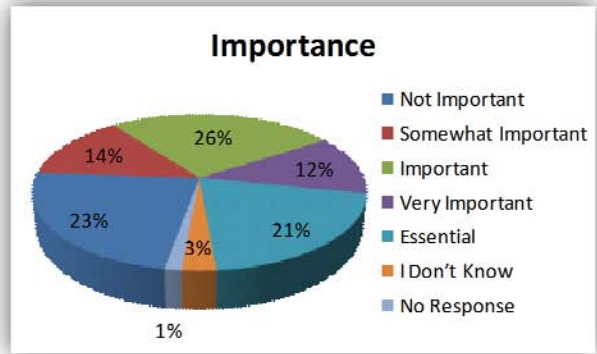
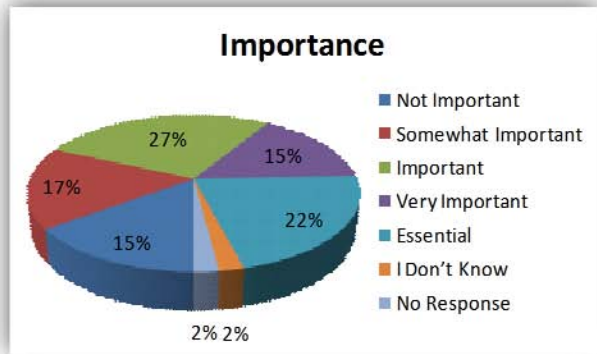
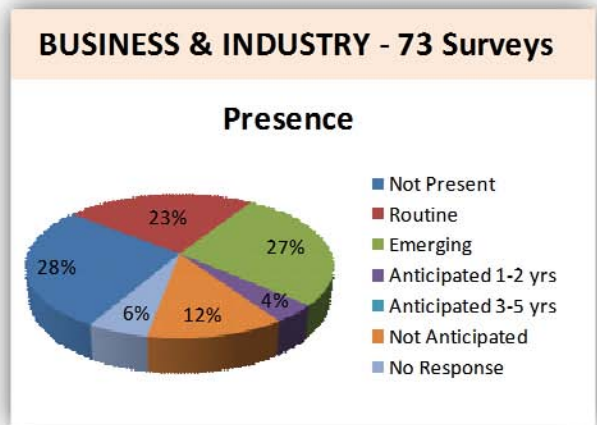
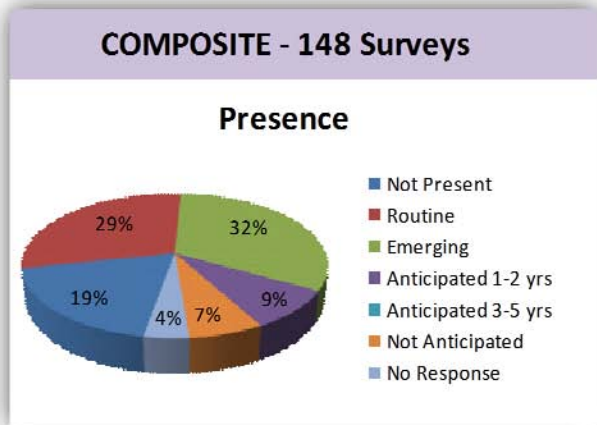
Survey Count		Survey Count		Survey Count		Survey Count		Survey Count			
Not Present	19	Not Important	12	Daily	77	Not Present	13	Not Important	10	Daily	32
Routine	53	Somewhat	12	Weekly	26	Routine	20	Somewhat	5	Weekly	15
Emerging	56	Important	38	Monthly	17	Emerging	29	Important	19	Monthly	10
Anticipated 1-2 yrs	9	Very Important	42	Rarely	14	Anticipated 1-2 yrs	4	Very Important	20	Rarely	9
Anticipated 3-5 yrs	1	Essential	43	Not Applicable	3	Anticipated 3-5 yrs	4	Essential	18	Not Applicable	2
Not Anticipated	5	I Don't Know	4	I Don't Know	4	Not Anticipated	4	I Don't Know	1	I Don't Know	1
No Response	5	No Response	1	No Response	7	No Response	3	No Response	1	No Response	4

**SOCIAL NETWORKING FOR BUSINESS** Social media tools for branding, networking, customer service



Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present	1	Not Important	1	Daily	17
Routine	9	Somewhat	1	Weekly	4
Emerging	12	Important	3	Monthly	2
Anticipated 1-2 yrs	2	Very Important	8	Rarely	5
Anticipated 3-5 yrs	4	Essential	13	Not Applicable	1
Not Anticipated	1	I Don't Know	0	I Don't Know	3
No Response	1	No Response	0	No Response	1
				Not Present	5
				Routine	24
				Emerging	15
				Anticipated 1-2 yrs	3
				Anticipated 3-5 yrs	1
				Not Anticipated	1
				No Response	1
				Not Important	2
				Somewhat	6
				Important	13
				Very Important	15
				Essential	14
				I Don't Know	0
				No Response	0
				Daily	28
				Weekly	7
				Monthly	5
				Rarely	5
				Not Applicable	1
				I Don't Know	3
				No Response	1

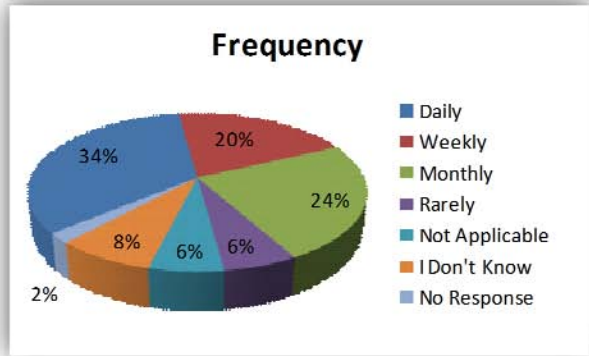
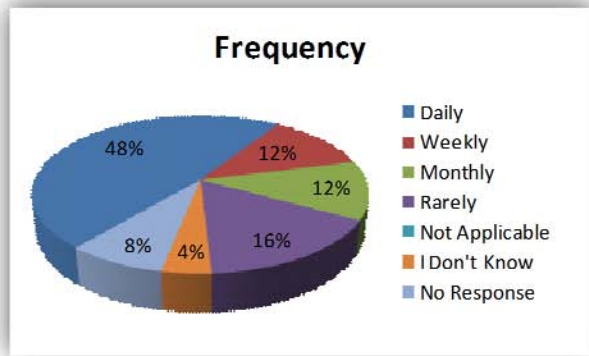
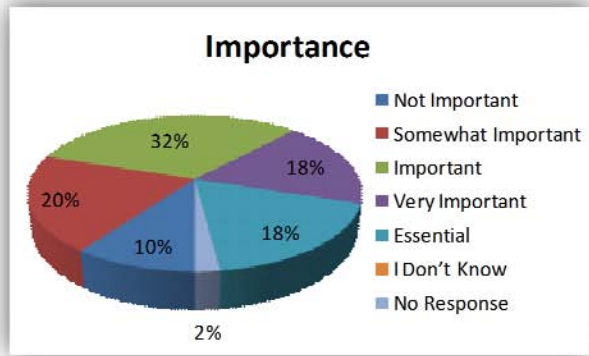
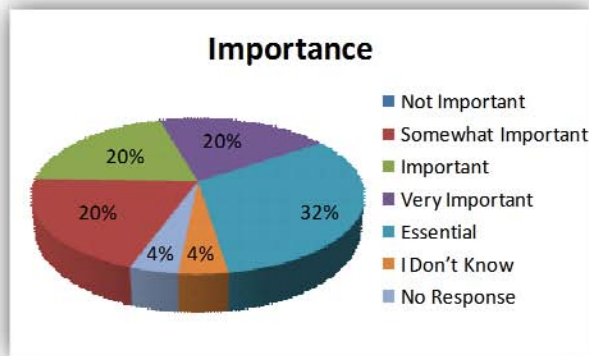
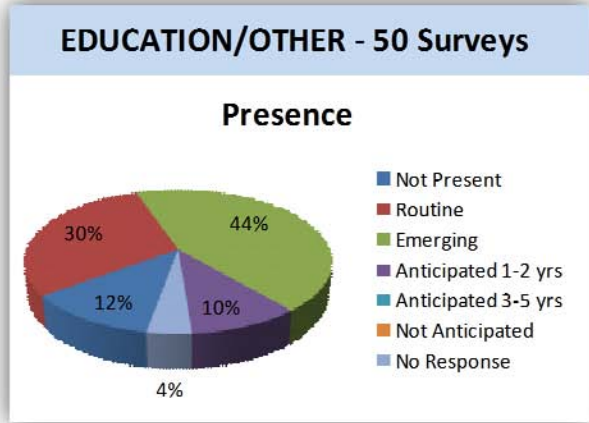
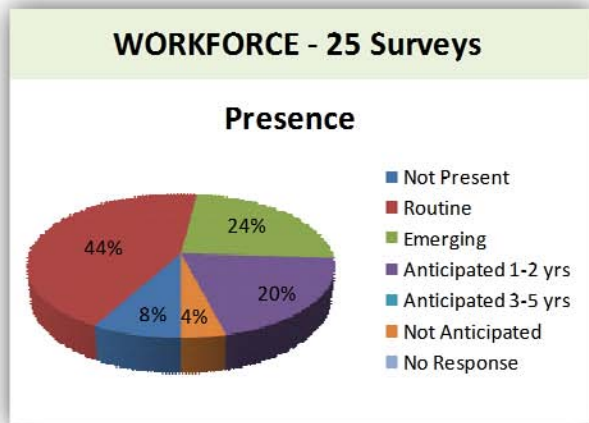
**WORKING ONLINE IN GEOGRAPHICALLY DISTRIBUTED TEAMS** Global work in virtual spaces



Survey Count		Survey Count		Survey Count		Survey Count		Survey Count		Survey Count	
Not Present	28	Not Important	22	Daily	49	Not Present	20	Not Important	17	Daily	20
Routine	43	Somewhat	25	Weekly	26	Routine	17	Somewhat	10	Weekly	13
Emerging	48	Important	40	Monthly	23	Emerging	20	Important	19	Monthly	8
Anticipated 1-2 yrs	13	Very Important	23	Rarely	19	Anticipated 1-2 yrs	3	Very Important	9	Rarely	12
Anticipated 3-5 yrs	4	Essential	32	Not Applicable	10	Anticipated 3-5 yrs	6	Essential	15	Not Applicable	7
Not Anticipated	10	I Don't Know	3	I Don't Know	12	Not Anticipated	9	I Don't Know	2	I Don't Know	7
No Response	6	No Response	3	No Response	9	No Response	4	No Response	1	No Response	6



**WORKING ONLINE IN GEOGRAPHICALLY DISTRIBUTED TEAMS** Global work in virtual spaces



Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present	2	Not Important	5	Daily	12
Routine	11	Somewhat	5	Weekly	3
Emerging	6	Important	5	Monthly	3
Anticipated 1-2 yrs	5	Very Important	5	Rarely	4
Anticipated 3-5 yrs	5	Essential	8	Not Applicable	8
Not Anticipated	1	I Don't Know	1	I Don't Know	1
No Response	0	No Response	1	No Response	2
				Not Present	6
				Routine	15
				Emerging	22
				Anticipated 1-2 yrs	5
				Anticipated 3-5 yrs	5
				Not Anticipated	1
				No Response	2
				Not Important	5
				Somewhat	10
				Important	16
				Very Important	9
				Essential	9
				I Don't Know	9
				No Response	1
				Daily	17
				Weekly	10
				Monthly	12
				Rarely	3
				Not Applicable	3
				I Don't Know	4
				No Response	1

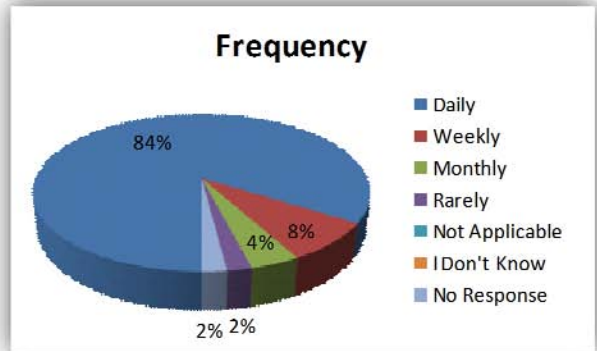
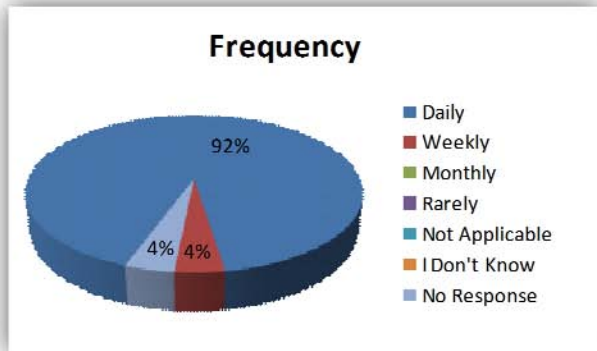
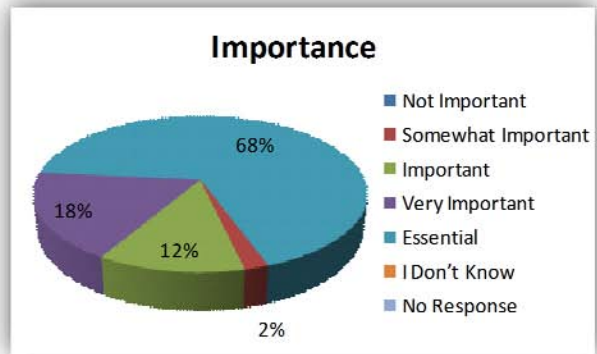
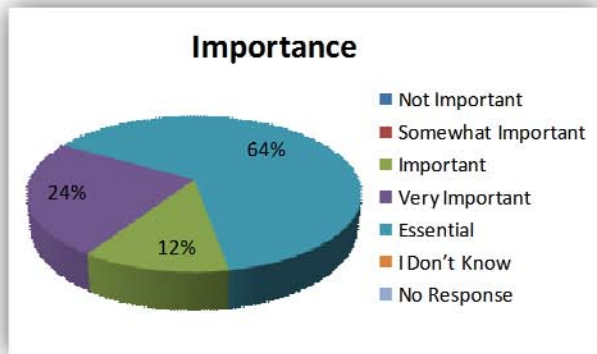
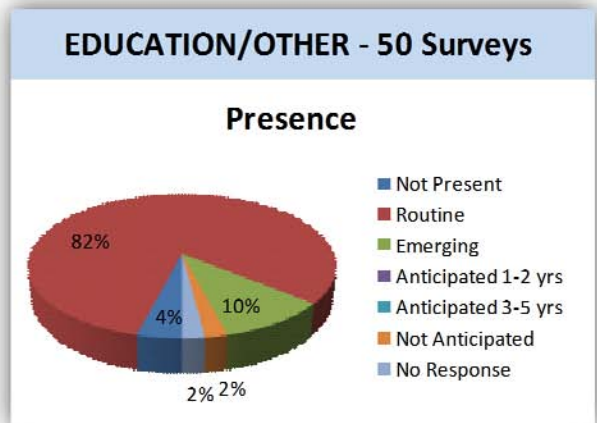
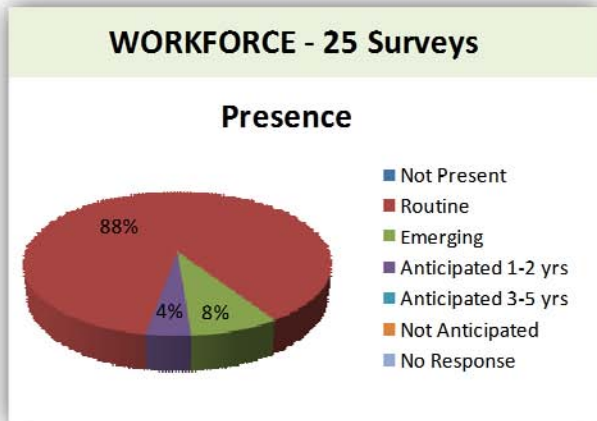








**LEGAL & ETHICAL PRACTICE** Acting within the rules of conduct for business

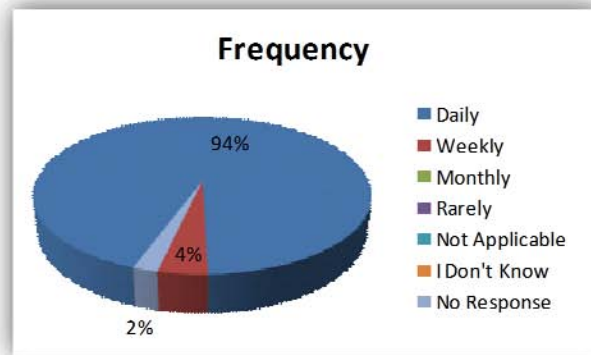
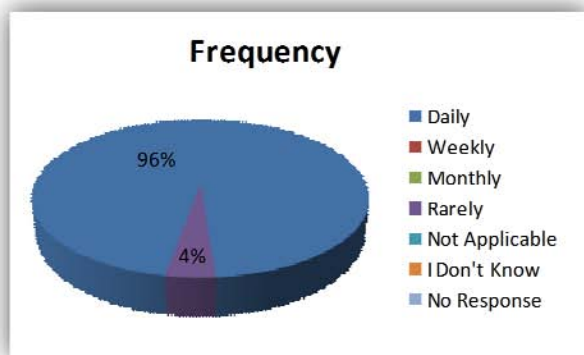
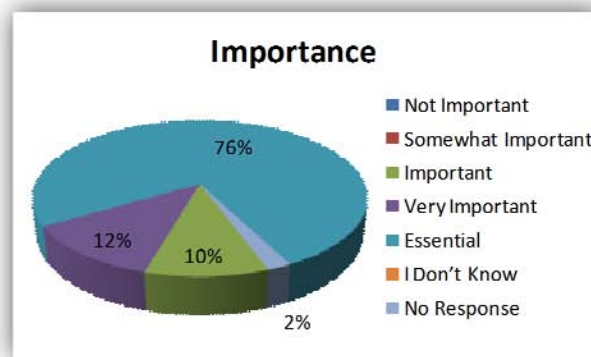
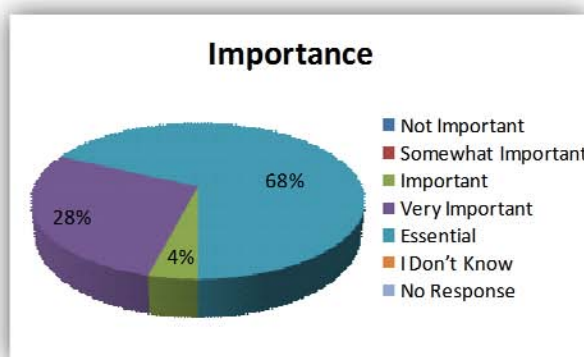
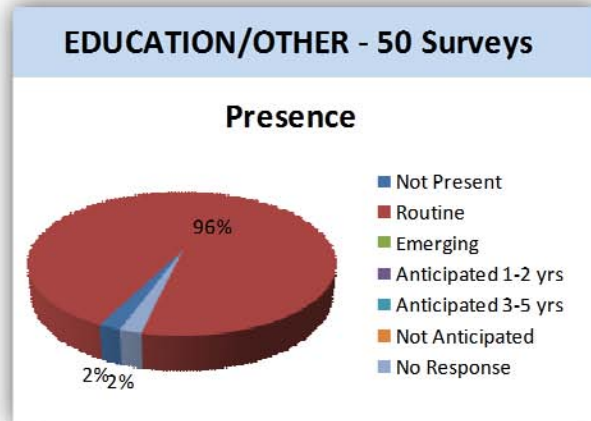
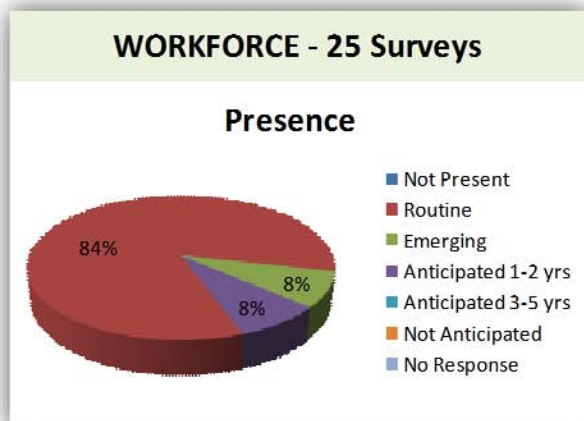


Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present	Not Important	Daily	23	Not Present	2
Routine	Somewhat Important	Weekly	1	Routine	41
Emerging	Important	Monthly	3	Emerging	5
Anticipated 1-2 yrs	Very Important	Rarely	6	Anticipated 1-2 yrs	5
Anticipated 3-5 yrs	Essential	Not Applicable	16	Anticipated 3-5 yrs	34
Not Anticipated	I Don't Know	I Don't Know	1	Not Anticipated	1
No Response	No Response	No Response	1	No Response	1
				Not Important	1
				Somewhat Important	1
				Important	6
				Very Important	9
				Essential	34
				I Don't Know	1
				No Response	1
				Daily	42
				Weekly	4
				Monthly	2
				Rarely	1
				Not Applicable	1
				I Don't Know	1
				No Response	1



## Composite Survey Results

### **PROFESSIONALISM** Standards of behavior in the workplace

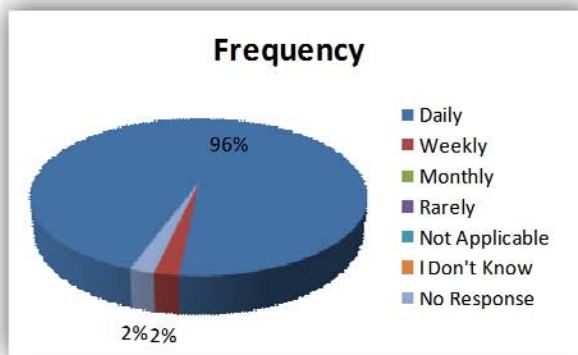
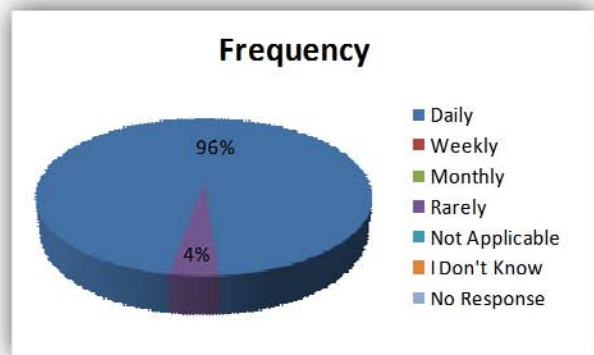
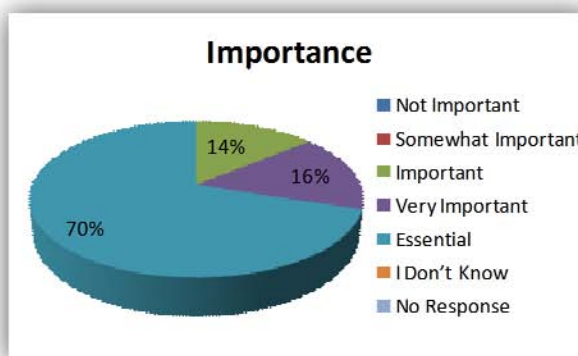
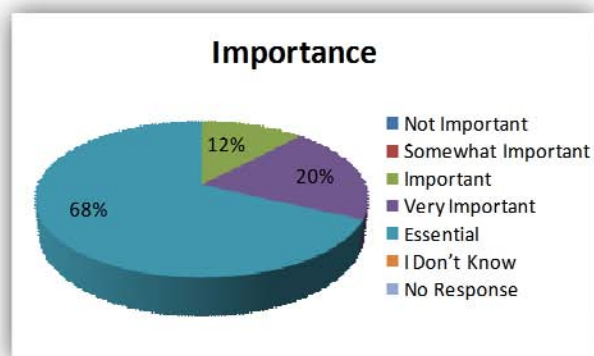
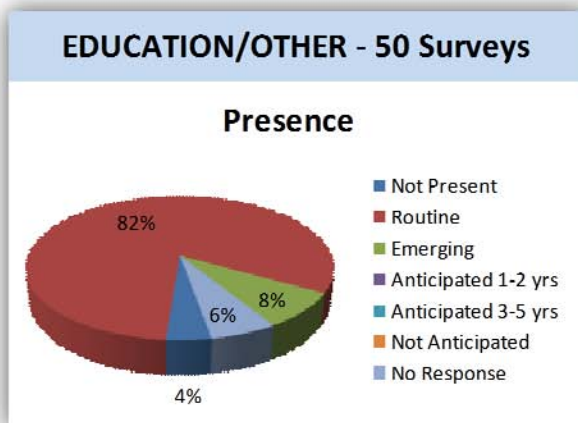
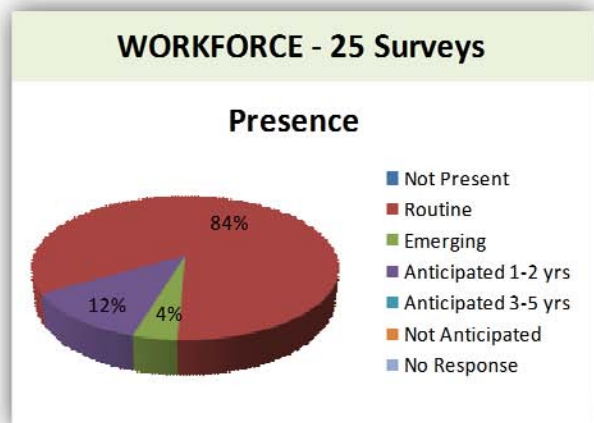


Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present	Not Important	Daily	24	Not Present	1
Routine	Somewhat Important	Weekly		Routine	48
Emerging	Important	Monthly		Emerging	5
Anticipated 1-2 yrs	Very Important	Rarely	1	Anticipated 1-2 yrs	6
Anticipated 3-5 yrs	Essential	Not Applicable		Anticipated 3-5 yrs	38
Not Anticipated	I Don't Know	I Don't Know		Not Anticipated	1
No Response	No Response	No Response		No Response	1
				Daily	47
				Weekly	2
				Monthly	
				Very Important	6
				Essential	38
				I Don't Know	1
				No Response	1
				Not Applicable	
				I Don't Know	1
				No Response	1





**INITIATIVE & SELF-DIRECTION** Controlling, guiding, and managing one's own activities



Survey Count	Survey Count	Survey Count	Survey Count	Survey Count	Survey Count
Not Present	Not Important	Daily	24	Not Present	2
Routine	Somewhat Important	Weekly	1	Routine	41
Emerging	Important	Monthly	3	Emerging	4
Anticipated 1-2 yrs	Very Important	Rarely	5	Anticipated 1-2 yrs	7
Anticipated 3-5 yrs	Essential	Not Applicable	17	Anticipated 3-5 yrs	8
Not Anticipated	I Don't Know	I Don't Know	1	Not Anticipated	35
No Response	No Response	No Response	17	No Anticipated	1
				No Response	3
				No Response	3
				Daily	48
				Weekly	1
				Monthly	1
				Rarely	1
				Not Applicable	1
				I Don't Know	1
				No Response	1

**SURVEY COMPOSITE TABULATION**

Presence Category		Complex Communication	Computational Thinking	Creativity/Innovation	Cultural Competency	Expert Thinking	Social Net for Business	Geo Distrib Teams	Collaboration	Legal/Ethical Practice	Professionalism	Initiative/Self Direction
		1	2	3	4	5	6	7	8	9	10	11
<b>COMPOSITE</b>	Not Present	3	8	8	6	6	19	28	2	5	2	5
	Routine	119	104	107	102	109	53	43	121	122	129	113
	Emerging	18	25	28	37	27	56	48	16	14	10	19
	Anticipated 1-2 yrs	6	2	2	1	4	9	13	3	2	3	8
	Anticipated 3-5 yrs	0	0	0	1	0	1	0	1	2	2	0
	Not Anticipated	0	3	0	0	0	5	10	1	1	0	0
	No Response	2	6	3	1	2	5	6	4	2	2	3
	<b>TOTALS</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>
<b>BUSINESS &amp; INDUSTRY</b>	Not Present	3	3	6	4	4	13	20	2	3	1	3
	Routine	52	53	49	47	55	20	17	56	59	60	51
	Emerging	12	12	15	21	10	29	20	9	7	8	14
	Anticipated 1-2 yrs	5	1	1	1	3	4	3	3	1	1	5
	Anticipated 3-5 yrs	0	0	0	0	0	0	0	1	2	2	0
	Not Anticipated	0	1	0	0	0	4	9	1	0	0	0
	No Response	1	3	2	0	1	3	4	1	1	1	0
	<b>TOTALS</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>
<b>EDUCATION</b>	Not Present	0	4	2	0	1	5	6	0	2	1	2
	Routine	46	36	42	37	39	24	15	46	41	48	41
	Emerging	2	7	5	11	9	15	22	2	5	0	4
	Anticipated 1-2 yrs	1	0	0	0	0	3	5	0	0	0	0
	Anticipated 3-5 yrs	0	0	0	1	0	1	0	0	0	0	0
	Not Anticipated	0	1	0	0	0	1	0	0	1	0	0
	No Response	1	2	1	1	1	1	2	2	1	1	3
	<b>TOTALS</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
<b>WORKFORCE</b>	Not Present	0	1	0	2	1	1	2	0	0	0	0
	Routine	21	15	16	18	15	9	11	19	22	21	21
	Emerging	4	6	8	5	8	12	6	5	2	2	1
	Anticipated 1-2 yrs	0	1	1	0	1	2	5	0	1	2	3
	Anticipated 3-5 yrs	0	0	0	0	0	0	0	0	0	0	0
	Not Anticipated	0	1	0	0	0	0	1	0	0	0	0
	No Response	0	1	0	0	0	1	0	1	0	0	0
	<b>TOTALS</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>

**SURVEY COMPOSITE TABULATION (CON'T)**

Importance Category		Complex Communication	Computational Thinking	Creativity/Innovation	Cultural Competency	Expert Thinking	Social Net for Business	Geo Distrib Teams	Collaboration	Legal/Ethical Practice	Professionalism	Initiative/Self Direction
		1	2	3	4	5	6	7	8	9	10	11
<b>COMPOSITE</b>	Not Important	1	4	1	0	0	12	22	0	0	0	0
	Somewhat Important	5	14	6	14	6	12	25	0	5	1	0
	Important	24	38	22	29	20	38	40	22	17	13	20
	Very Important	29	47	54	35	40	42	23	35	33	27	35
	Essential	89	45	65	69	81	43	32	87	92	103	92
	I Don't Know	0	0	0	0	0	0	3	0	0	0	0
	No Response	0	0	0	1	1	1	3	4	1	4	1
	TOTALS	148	148	148	148	148	148	148	148	148	148	148
<b>BUSINESS &amp; INDUSTRY</b>	Not Important	1	2	1	0	0	10	17	0	0	0	0
	Somewhat Important	3	6	4	10	3	5	10	0	4	1	0
	Important	11	17	13	14	8	19	19	12	8	7	10
	Very Important	18	24	30	19	19	20	9	21	18	14	22
	Essential	40	24	25	30	42	18	15	37	42	48	40
	I Don't Know	0	0	0	0	0	0	2	0	0	0	0
	No Response	0	0	0	0	1	1	1	3	1	3	1
	TOTALS	73	73	73	73	73	73	73	73	73	73	73
<b>EDUCATION</b>	Not Important	0	2	0	0	0	2	5	0	0	0	0
	Somewhat Important	1	5	0	2	2	6	10	0	1	0	0
	Important	9	14	6	13	9	13	16	5	6	5	7
	Very Important	7	16	19	10	13	15	9	12	9	6	8
	Essential	33	13	25	24	26	14	9	32	34	38	35
	I Don't Know	0	0	0	0	0	0	0	0	0	0	0
	No Response	0	0	0	1	0	0	1	1	0	1	0
	TOTALS	50	50	50	50	50	50	50	50	50	50	50
<b>WORKFORCE</b>	Not Important	0	0	0	0	0	0	0	0	0	0	0
	Somewhat Important	1	3	2	2	1	1	5	0	0	0	0
	Important	4	7	3	2	3	6	5	5	3	1	3
	Very Important	4	7	5	6	8	7	5	2	6	7	5
	Essential	16	8	15	15	13	11	8	18	16	17	17
	I Don't Know	0	0	0	0	0	0	1	0	0	0	0
	No Response	0	0	0	0	0	0	1	0	0	0	0
	TOTALS	25	25	25	25	25	25	25	25	25	25	25

**SURVEY COMPOSITE TABULATION (CON'T)**

Frequency Category		Complex Communication	Computational Thinking	Creativity/Innovation	Cultural Competency	Expert Thinking	Social Net for Business	Geo Distrib Teams	Collaboration	Legal/Ethical Practice	Professionalism	Initiative/Self Direction
		1	2	3	4	5	6	7	8	9	10	11
<b>COMPOSITE</b>	Daily	129	93	98	98	120	77	49	112	123	138	136
	Weekly	10	34	34	34	17	26	26	22	9	3	4
	Monthly	4	5	9	4	4	17	23	4	6	0	1
	Rarely	0	8	1	4	1	14	19	0	3	1	1
	Not Applicable	0	0	1	1	0	3	10	0	0	0	1
	I Don't Know	0	2	0	0	0	4	12	0	0	0	0
	No Response	5	6	5	7	6	7	9	10	7	6	5
	<b>TOTALS</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>
<b>BUSINESS &amp; INDUSTRY</b>	Daily	63	52	42	46	60	32	20	52	67	67	64
	Weekly	4	11	17	17	6	15	13	11	1	7	3
	Monthly	2	3	8	2	2	10	8	2	0	0	1
	Rarely	0	3	1	3	1	9	12	0	0	0	0
	Not Applicable	0	0	1	1	0	2	7	0	0	0	1
	I Don't Know	0	0	0	0	0	1	7	0	0	0	0
	No Response	4	4	4	4	4	4	6	8	5	5	4
	<b>TOTALS</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>79</b>	<b>73</b>
<b>EDUCATION</b>	Daily	44	27	38	33	39	28	17	38	42	47	48
	Weekly	3	15	11	14	8	7	10	10	4	2	1
	Monthly	2	1	0	1	2	5	12	1	2	0	0
	Rarely	0	4	0	0	0	5	3	0	1	0	0
	Not Applicable	0	0	0	0	0	1	3	0	0	0	0
	I Don't Know	0	2	0	0	0	3	4	0	0	0	0
	No Response	1	1	1	2	1	1	1	1	1	1	1
	<b>TOTALS</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
<b>WORKFORCE</b>	Daily	22	14	18	19	21	17	12	22	23	24	24
	Weekly	3	8	6	3	3	4	3	1	1	0	0
	Monthly	0	1	1	1	0	2	3	1	0	0	0
	Rarely	0	1	0	1	0	0	4	0	0	1	1
	Not Applicable	0	0	0	0	0	0	0	0	0	0	0
	I Don't Know	0	0	0	0	0	0	1	0	0	0	0
	No Response	0	1	0	1	1	2	2	1	1	0	0
	<b>TOTALS</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>



## COMPLEX COMMUNICATION

1

### Statement

### Group

- 1 Divergent/Critical thinking with Complex Communication with creativity and Innovation – all the other bases are covered. CAVIT
- 2 Reluctance, show a lack, but it's essential for communication. CAVIT
- 3 Complex Communication – lack of soft skills prevented students from RETAINING job. CAVIT
- 4 Complex Communication is important – transfer of knowledge is complexity, essential to a team. CAVIT
- 5 Technology adds layers of complexity. CAVIT
- 6 OLD skills: Reading, writing, speaking, listening – we need integration of these skills with technology. CAVIT
- 7 If we communicate effectively, we will be more efficient and save on resources/time. CAVIT
- 8 Example, “Can’t have these 3 people working together – they don’t get along.” ?! Model communication!!! CAVIT
- 9
- 10 Cultural Competency. Example, a brilliant engineer leveled a project because he had no ability to communicate (personality perhaps). CAVIT
- 11 Communication is the foundation Combined
- 12 Relationship building\* Combined
- 13 Intergenerational skills Combined
- 14 Need public speaking and reading skills Combined
- 15 If asking questions is encouraged, it improves the dialog and builds relationships. Combined
- 16 Today’s Workplace: complex communication may include collaboration. Does the word “complex” change your response? Combined
- 17 It’s not JUST speaking, it’s INTERACTING. Complex is good – it’s more than. Combined
- 18 One on one, one to room, a letter, email – all very different – complex. Combined
- 19 Texting, technology overlay of communication, NOT face to face. What fits the audience? Combined
- 20 Don’t think there’s a difference in communication between letter and email. It’s non face to face communication. These are tools. We use them. They don’t use us. Combined
- 21 In testing/evaluating IT systems, Professionalism. They represent our company and first impression is important. After that, Complex Communication – the ability to receive, digest, process and return communication is essential (our client’s are in Defense, from generals to CEOs). CTD
- 22 Communication in house between shifts is critical (chemical manufacturing), then Decision making and Problem Solving. CTD
- 23 Communication, personal interaction with customer. Walmart’s new hires are straight from HS. Training covers a range of skills. Very few new hires ask any kind of question. CTD
- 24 Communication competency is huge – explanations to customers. 90% of our employees are local and under the age of 26. Example, 24 year old, married with baby, had problem running off mouth. He said the wrong thing to the wrong person. Thought he should be treated special – lost his \$50/hour job. We have a no tolerance policy for this kind of behavior. How do you teach Manners? CTD
- 25 Social Networking for Biz – is it present in your company? CTD
- 26 Looking at kids and generations, we need to allow them to use the tools they’re comfortable with AND expect them to be on time, ask questions, etc. CTD
- 27 Communication is an issue. CVIT
- 28 Common thread – LISTENING skills needed. Not enough DISCOURSE. Inability to follow, understand, weak attention span... CVIT

28		
29	Now kids communicate in 140 characters or less. Students can do this. They have no idea how to TALK to a human being on a phone.	CVIT
30	Need to be able to have a normal conversation.	CVIT
31	Divergent and critical thinking skills combined WITH complex communication and the capacity to solve problems and make decisions. These are critical. We need to be <u>thinking through</u> things. As I contemplate students i engage with this is a missing piece along with basic literacy skills.	
32	Complex Communication. There's a red flag when students are not asking questions for more understanding.	CVIT
33	Includes electronic dispatch – complex environment	EVIT
34	Verbal and body language, which is something like 80% of communication.	EVIT
35	Example, Suns marketing director opening, a Harvard MBA interview candidate lasted only 15 minutes because he could not market, could not SELL, himself.	EVIT
36	Asking questions	NAVIT
37	Person to person skills – must be able to engage the customer	NAVIT
38	Communication is critical.	NAVIT
39	Electronic media skills– pervasive web surfing, Facebook (FB) needs to be addressed.	NAVIT
40	Kids communicate so well via texting and FB but not one on one. ► affects ability to communicate face to face with a customer. ► saying “like” 30 times ► maybe we should start doing our interviews with US texting.	NAVIT
41	When dealing with people, need to talk eye ball to eye ball first, then phone	NAVIT
42	Need to consider that some people do NOT want interactivity. They want the transaction to move quickly, get it done.	NAVIT
43	We are graded better as a store if sales assistants offer to help find an item outside the store when not available in the store. This is not the younger gen looking for this. Younger clerks like to go online and do this.	NAVIT
44	Our life skills class taught communicating on a topic. Kids from single parent/blended homes often mediating for their families. We provided this training that was not necessarily taught at home.	NAVIT
45	Communication skills, when not engrained early enough, are difficult to transfer into other areas. Needs to be part of them. INTEGRATED.	NAVIT
46	Example, complexities of onsite operation of road paving. Time is money – ours and yours – inability to measure and move material properly and inability to COMMUNICATE have consequences for time and profitability. Needed employability skills are attitude and teachability.	NAVIT
47	Banking – communication and technical	NAVIT
48	Communication is CULTURAL, requires Adaptation and Research	PCJTED
49	Also concerned with how people answer questions as well as ask.	PCJTED
50	Complex Communication includes asking and responding to questions.	PCJTED
51	The WAY knowledge is transferred is important.	PCJTED
52	Technology vs. face-to-face, skills must be taught.	PCJTED
	Professionalism, Complex Communication, Divergent & Critical Thinking	Px Cent.

- Example, with refugee placement we have a time-frame challenge. The economy has forced us to change how we do things overnight. We have to make our clients self-sufficient in 4 months (after 30 years in a refugee camp). 70% do not speak English. Cultural competency under stressful conditions (Interviewing, language, how one expresses oneself – even talking about oneself may be difficult because of cultural background). Complex communication and decision making, problem solving is needed.
- Px Cent.  
Px Cent.
- 54 Complex Communication includes building in social acculturation and diversity.
- 55 Systems Thinking “Wisdom” ties into Complex Communication – timing, guiding, mentoring, looking to the future. Example, hospitals – how will reform affect them? affect career development in nursing? Majority of nurses presently work in hospitals but will need to transition to outpatient care and community education. “Complex Care” will require collaboration with other services without “silos.” how do we develop this wisdom?  
Px Cent.
- 56 Communication. We have 4 tribes in La Paz, as well as Hispanics and others – different languages are a challenge. Verbal and body language need to be understood.  
WAVE
- 57 Collaboration in this environment? Culture as generational and ethnicity. Includes technology, tension around practices for communication and styles. Email not being used anymore by youth – they’ve moved on (texting). Need new ways to bridge old gaps.  
WAVE
- 58 From employer perspective, it starts with the employee – clear communication in the beginning.  
WAVE
- 59 People need to reconsider strong opinions. There’s a need for flexibility.
- 60 Canadian values not the same as others in Havasu. Our company tests for the ability to work with other cultural groups. Our hires may speak French as their first language and need to work hard to communicate in English.  
WAVE
- 61 Complex communication and social networking. Written AND spoken communication.  
WestMEC
- 62 Overlaying technology on communication makes it more complex. We are struggling with terminology. Electronic skills need to be included here. Verbal skills are needed in this generation.  
WestMEC
- 63 “Jargon of the job” – people do better when they spend time on it.  
WestMEC
- 64 Social networking is a TOOL, not a skill. Has to be directed at communication.  
WestMEC
- 65 Complex communication – nowhere to start without this. We assess basic abilities on entry [get list].  
YUMA
- 66 Social skills. What does it take to get the next job?  
YUMA
- 67 The application gives us an indication. Writing and interview. Written skills are important. In a linguistically diverse population, this is a challenge.  
YUMA
- 68 Top 3: divergent/critical thinking; complex communication; self-direction/motivation  
YUMA
- 69 Ability to ask questions essential or won’t be able to perform successfully – it’s obvious  
YUMA
- 70 Critical thinking and complex communication are very important in the hospital, in diverse jobs.  
YUMA
- 71 Collaboration – may have a technical teamwork skill but lack the communicative ability that makes it work.  
YUMA
- 72 Training on “formal” communication and protocols is needed cross-generationally.  
YUMA
- 73 We need attitude, accountability, common sense, knowledge of how to treat a customer/potential customer, bilingualism  
YUMA

## VISUAL, PATTERN-BASED THINKING INVOLVING MATH/QUANTITATIVE PROCEDURES (Computational Thinking)

Statement	Group
1 Computer skill helps them complete tasks more quickly	Combined
2 Regarding Computational Thinking: it's systems design, project management, process design (relationship, proportion), why just math? Courtney Scott @ Grey Hills Academy H.S. started cross-crediting math and CTE. He saw that CTE students were doing better in math than non CTE.	Combined
3 Math can teach fundamental critical thinking skills. The new technological environment does not necessarily provide this.	Combined
4 Computational thinking is an essential workplace skill – math overlaid with critical thinking. “How to connect the dots.” Maybe we need to step away from calculators.	Combined
5 Computational Thinking/Systems Thinking – is this a need?	CTD
6 Aegis example, We “ramp up” to 500 people in 90 days. I had never done this before. It meant 60-80 people every couple weeks. Needed to test 850 in order to interview 650, so that meant 1200 applicants up front. The result was 257 new hires in 4 months. By looking at what was expected, I was able to figure it out.	CTD
7 Spatial concepts reminds of the tests we tool looking at flat diagrams and determining shapes.	CTD
8 Example, making change at McDonalds – they have NO IDEA how to do it. “Could you please teach kids how to THINK to count back change?” and how to answer the telephone – Communication.	CTD
9 Maggie Computational thinking – seeing relationships, understanding proportion and scale – are we going to get this the way we’re going?	CVIT
10 Maggie re: computation thinking – systems thinking? How parts relate to the whole. How important is this to you?	Px Cent.
11 Understanding systems is extremely important in healthcare. Example medicine, the heart as part of the body.	Px Cent.
12 Two important authors: Margaret Wheatley <i>Leadership &amp; the New Science</i> and Steve Johnson <i>Where do Good Ideas Come from?</i> who says that “Chance favors the connected mind.” Systems thinkers.	Px Cent.
13 Critical thinking component – listening, analyzing, assessing, categorizing then problem solving and decision making. This is Systems Thinking – gather a body of information and processing it to get to a solution.	Px Cent.
14 A recent <i>Harvard Business Review</i> article pointed out that a mistake often made in building a system is not to include all of the stakeholders. An understanding of how their work impacts the system is needed.	Px Cent.
15 Let’s talk about computational thinking [Maggie]. One commissioner said, if we can’t define the skill, we can’t measure it and can’t manage it. We don’t need just another year of math. Computational thinking is the ability to see things proportionally, includes scalability and relationships between things. An example might be project management.	WAVE
16 AZ Counts conversation: expecting kids to understand year 2 Algebra exponential functions but not showing the application to credit cards and personal finance.	WAVE
17	WAVE
18 Computational thinking – not general application in social services but I see what you described as I’m working on a grant right now.	WAVE
19 911 hotline – self direction is essential, no time to ask questions. Computational thinking important here too.	WAVE
20 There’s literature on problems with females with math and fear of math in general. We need to start STEM at ground level. Math elitism needs to be dispelled.	YUMA
21 Conceptual and spatial skills are needed!	YUMA
22 At this college we’ve change the curriculum in the past 2 years to APPLICATION. We use real world problems, examples: virtual football team, story problems (computational thinking, problem solving, critical thinking). We need to get through elitism to change how we approach quantitative skills.	YUMA



## CREATIVITY AND INNOVATION

3

Statement	Group
1 Divergent/Critical thinking with Complex Communication with creativity and Innovation – all the other bases are covered.	CAVIT
2 Creativity and innovation: being challenged	Combined
3 Looking at kids and generations, we need to allow them to use the tools they're comfortable with AND expect them to be on time, ask questions, etc.	CTD
4 Innovativeness, Problem Solving – the ability to identify problems.	CVIT
5 I feel at a loss because I don't use social media. When I bring in someone new, I'm looking for those skills.	CVIT
6 Important to be on time, part of a team, to think critically and know how to think outside of the box.	PCJTED
7 I'm consumed with my business surviving and lack in this area among employees. If employees recognize what it means to have their business on the line, it challenges them to express Creativity and Innovation (C&I).	PCJTED
8 C&I can be negated in the workplace and students need to understand this and that it may stimulate other ideas. It requires persistence and takes time. Perhaps more important is enthusiasm.	PCJTED
9	
10 Entrepreneurship – more than a movie, it's the elemental things: Where do I get the supplies? What do I need? How do I pay for it? Gladwell's <u>Outliers</u> . 40% of teachers have less than 3 years experience in the classroom. Creativity and Innovation are required to make the transitions needed to day. How do we get the new gen teacher able to make the transition? Massive cultural change about how we prep people for workforce. We need to help the adults/teachers understand what's happening in biz/industry. They need an EXPERIENCE of it.	Px Cent.
11	
12 Creativity/Innovation. Technology and info delivery enables us to express and build upon creativity and innovation. Huge issue. As a COMMUNITY we collaborate, doing more with less money, and flexibility is a requirement. Creative ideas need to be acknowledged.	WestMEC YUMA

## CULTURAL COMPETENCY

4

Group

Statement	Group
1 Cultural Competency. Example, a brilliant engineer leveled a project because he had no ability to communicate (personality perhaps).	CAVIT
2 Yes, includes Cultural Competency. Example, Native American students interviewing outside of the reservation need a different level of interaction. Example, competitions help raise the bar. Example, law school, to promote through rank, need to sit for an interview.	CAVIT
3 Relationship building*	Combined
4 Cultural*	Combined
5 Our generation and before, people kept jobs for a long time. The expectation now is 15 jobs in 25 years. They <u>don't want</u> to give and we (Boomers) <u>will not give</u> . Requires Cultural Competency. Globally, too.	CTD
6 Eye contact is essential. We've failed to make this a priority.	EVIT
7 When dealing with people, need to talk eye ball to eye ball first, then phone	NAVIT
8 Need to consider that some people do NOT want interactivity. They want the transaction to move quickly, get it done.	NAVIT
9 We are graded better as a store if sales assistants offer to help find an item outside the store when not available in the store. This is not the younger gen looking for this. Younger clerks like to go online and do this.	NAVIT
10 What about cultural competency? Need to teach people across cultures how to relate/communicate with each other. Must recognize and respect differences.	NAVIT
11 Communication is CULTURAL, requires Adaptation and Research	NAVIT
12 Cultural Competency. Example, "Rodeo?! This is NOT like NY!"	PCJTED
13 We are not making boxes but a process that happens in the environment	PCJTED
14 Example, with refugee placement we have a time-frame challenge. The economy has forced us to change how we do things overnight. We have to make our clients self-sufficient in 4 months (after 30 years in a refugee camp). 70% do not speak English. Cultural competency under stressful conditions (Interviewing, language, how one expresses oneself – even talking about oneself may be difficult because of cultural background). Complex communication and decision making, problem solving is needed.	Px Cent.
15 Complex Communication includes building in social acculturation and diversity.	Px Cent.
16 Cultural Competency is at the top also. I do Intergenerational Training. We now have 4 generations in the workplace. There are barriers within organizations that are <u>in the way of</u> bringing people together to collaborate – age, race, etc. Probably based in perception. Leaders need to strike down myths, shoot for common goals. These are frequent problems among my clients.	Px Cent.
17 Cultural Competency is going to be needed with returning military – understanding is becoming increasingly important.	Px Cent.
18 Canadian values not the same as others in Havasu. Our company tests for the ability to work with other cultural groups. Our hires may speak French as their first language and need to work hard to communicate in English.	WAVE
19 Cultural skills, crossing tribal boundaries. Youth don't step up and ask until a relation is developed. Need to be able to shift between home and work.	WAVE
20 Familiarity with cultural backgrounds and resources is ESSENTIAL here.	WAVE
21 We also have contact with people from tribal communities in other states.	WAVE

- 22 More emphasis needed on character - ► How do you keep up with that, manage that? ► It's an issues of diversity. Character is not the same in different cultures. ► Does this have to do with professionalism?
- 23 Need to be careful not to single out people
- 24 Tolerance for diversity has got to be a focus with competing value systems.
- 25 We need attitude, accountability, common sense, knowledge of how to treat a customer/potential customer, bilingualism
- 26 Cultural competency is important because of global nature of business.
- 27 An example of cultural competency is the "a-okay" sign. It means significantly different things in different countries.

WAVE

WAVE

WAVE

YUMA

YUMA

YUMA

## DIVERGENT & CRITICAL THINKING, PROBLEM SOLVING, DECISION MAKING (Expert Thinking)

Statement	Group
1 Divergent/Critical thinking with Complex Communication with creativity and Innovation – all the other bases are covered.	CAVIT
2 Divergent & Critical Thinking category. We see a lack of analysis skills, an inability to build an argument.	CAVIT
3 If you think critically, you don't waste product. Example, inability to read a tape measure led to redesign of the tape measure (now reads 1/4, 1/8 inch marks).	CAVIT
4 Resource/waste management/allocation is a THINKING task.	CAVIT
5 Math can teach fundamental critical thinking skills. The new technological environment does not necessarily provide this.	Combined
6 Computational thinking is an essential workplace skill – math overlaid with critical thinking. “How to connect the dots.” Maybe we need to step away from calculators.	Combined
7 Divergent thinking	Combined
8 Problem solving, Solution-oriented*	Combined
9 Critical thinking	Combined
10 There are times when it's important NOT to go beyond what I'm asked to do. It may create problems. Example, injury. Critical Thinking includes knowing your limits.	Combined
11 Communication in house between shifts is critical (chemical manufacturing), then Decision making and Problem Solving.	CTD
12 Texas Instruments interviewed 12 graduate students from ivy league schools – none of them got through the 3 day process because of their lack of ability to TRY, to ask questions, maybe make a mistake.	CTD
13 We learned to apply thinking in a different way. We asked interviewees “How many barbers are there in LA?” The guy who “computed” it on the spot in the interview got the job.	CTD
14 Innovativeness, Problem Solving – the ability to identify problems.	CVIT
15 Divergent and critical thinking skills combined WITH complex communication and the capacity to solve problems and make decisions. These are critical. We need to be thinking through things. As I contemplate students i engage with this is a missing piece along with basic literacy skills.	CVIT
16 What drove our Auto Industry technicians to be techs? 1. Need to solve problems 2. Need for appreciation 3. \$\$\$	EVIT
17 Problem solving/decision making: numerous employees have problems with this; afraid of making a WRONG decision so making NO decision; employees require directions at every step.	NAVIT
18 Need to let employees make mistakes or they will be afraid to make a decision. ▲ Need to do this in education, example, as an employee I gave away \$1000 sofa to manage company mistakes for customer	NAVIT
19 Important to be on time, part of a team, to think critically and know how to think outside of the box.	PCJTED
20 They need to learn to Observe and Draw Conclusions toward conforming for success.	PCJTED
21	
Example, with refugee placement we have a time-frame challenge. The economy has forced us to change how we do things overnight. We have to make our clients self-sufficient in 4 months (after 30 years in a refugee camp). 70% do not speak English. Cultural competency under stressful conditions (Interviewing, language, how one expresses oneself – even talking about oneself may be difficult because of cultural background). Complex communication and decision making, problem solving is needed.	Px Cent.
22 Critical thinking component – listening, analyzing, assessing, categorizing then problem solving and decision making. This is Systems Thinking – gather a body of information and processing it to get to a solution.	Px Cent.
23 Professionalism, Complex Communication, Divergent & Critical Thinking	Px Cent.

24 Example of Critical thinking, interacting with customers who have a need

Px Cent.

25

Youth become passive in life experiences because of the DRAMA around them. We incorporate life skills, ending the drama, developing an ability to choose. We see they're caught in a generational cycle. Need to empower them to make decisions to keep them safe.

WAVE

26 Expert thinking is high level. What level are we discussing?

WestMEC

27 Think: Entry Level, first job. Need people to demonstrate certain aspects of these skills depending on the job.

WestMEC

28 At this college we've change the curriculum in the past 2 years to APPLICATION. We use real world problems, examples: virtual football team, story problems (computational thinking, problem solving, critical thinking). We need to get through elitism to change how we approach quantitative skills.

YUMA

29 Top 3: divergent/critical thinking; complex communication; self-direction/motivation

YUMA

30 Critical thinking and complex communication are very important in the hospital, in diverse jobs.

YUMA

## SOCIAL NETWORKING FOR BUSINESS

Statement	Group
1 Collaboration MORE of a challenge with social media. Technology increases the barriers.	CAVIT
2 Technology adds layers of complexity.	CAVIT
3 OLD skills: Reading, writing, speaking, listening – we need integration of these skills with technology.	CAVIT
4 Appropriate use of social media	Combined
5 Appropriate use of social media**	Combined
6 Computer skill helps them complete tasks more quickly	Combined
7 Texting, technology overlay of communication, NOT face to face. What fits the audience?	Combined
8 Don't think there's a difference in communication between letter and email. It's non face to face communication. These are tools. We use them. They don't use us.	Combined
9 Social Networking for Biz – is it present in your company?	CTD
10	
11 We allow teleworking when possible. This generation is different. However, you don't get out there straight from high school.	CTD
12 I use it to communicate with clients in workforce.	CTD
13 Facebook – we have to tolerate these tools but they have to be appropriate with them.	CTD
14 Things are innocently said that create a lot of problems. At County we can't get on social media, but people bring phones in. To them [young] it's not a breach of ethics – we talk about it.	CVIT
15	
16 In class we do pod casts. Kids don't understand the ethics behind Facebook. Example, taunting other students electronically.	CVIT
17 Or kids posting things that a potential employer can find on the web. Loud ring tones. Texting all the time.	CVIT
18 Example, a picture of a student drinking ruined her application for a scholarship. We need to emphasize these stories.	CVIT
19 They're not being taught the ethics of Social Media use.	CVIT
20 I feel at a loss because I don't use social media. When I bring in someone new, I'm looking for those skills.	CVIT
21	
22 Now kids communicate in 140 characters or less. Students can do this. They have no idea how to TALK to a human being on a phone.	CVIT
23 Is there a role for social media in your workplace?	CVIT
24	
25 We can't stop the wheels from turning. How can we incorporate it into our workforce? How do we USE those tools and skills?	CVIT
26 Economic development is 95% social media. We have to be able to get out the story.	CVIT
27 We have twitter, Facebook, blog@Resolution Copper. We have only a couple who know how.	CVIT
28 Facebook is standing in for a web page now.	CVIT
29	
30 Have to stay on top of Social Media because it changes so quickly. People now are choosing where they eat and go based on info online.	CVIT
31 They're "GPSing" – meeting @ coordinates	CVIT
32 Includes electronic dispatch – complex environment	EVIT
33 Social Networking for Biz – connection to Ethics. "Appropriate" use impacts employability, social responsibility.	EVIT
34 They must know these – twitter, texting, Facebook	EVIT
35 Example, less than 10% tweet, most consider Facebook to be the social network.	EVIT

31	They're tech savvy and can figure it out.	
32	Social media has supersized our ability to broadcast information.	EVIT
33	Electronic media skills— pervasive web surfing, Facebook (FB) needs to be addressed.	EVIT
34	We are graded better as a store if sales assistants offer to help find an item outside the store when not available in the store. This is not the younger gen looking for this. Younger clerks like to go online and do this.	NAVIT
35	Kids communicate so well via texting and FB but not one on one. ► affects ability to communicate face to face with a customer. ► saying “like” 30 times ► maybe we should start doing our interviews with US texting.	NAVIT
36	Example, professional email accounts, not crazysoccerchic99@....	PCJTED
37	Need to know what is appropriate on Facebook and mySpace (etiquette)	PCJTED
38	Technology vs. face-to-face, skills must be taught.	PCJTED
39	Social Networking for Business doesn't yet fit in the business model for construction.	PCJTED
40	Critical for Branding and advertising — we need to keep up with the technology.	PCJTED
41	Second Life is now being used as a virtual world to create business. Pulte is using it.	PCJTED
42	This is the student's world — they are designing apps for Apple.	PCJTED
43	Politics of the last week gives us an indicator of the importance of these tools. This is NOW!	PCJTED
44	Technology and the speed of change — includes face to face. See Microbusiness Advancement Center <a href="http://mac-sa.org/">http://mac-sa.org/</a> .	PCJTED
45	Most of us don't even have a fundamental understanding of where our kids are and what they need to learn. Texting — we used to laugh and now it's essential to us.	Px Cent.
46	ADD behavior is rewarded. “Move fast and break things” is the facebook motto. This is our younger generation at work. Resumes are going to be useless since reputation is built online. Good — bad — none — what's your online reputation? People that get what's going on don't make the decisions and vice versa.	Px Cent.
47		
48	Collaboration in this environment? Culture as generational and ethnicity. Includes technology, tension around practices for communication and styles. Email not being used anymore by youth — they've moved on (texting). Need new ways to bridge old gaps.	WAVE
49	Policies and procedures at all levels with my company say NO texting, NO FB.	WAVE
50	Youth assume texting is appropriate.	WAVE
51	Youth are not using technology to their advantage at work — generally social use	WAVE
52	At Mohave Correctional we employ 600. They CANNOT bring cell phones into the facility. Doing so may result in termination. FB and twitter are blocked.	WAVE
53	Use of social media is situational.	WAVE
54	Complex communication and social networking. Written AND spoken communication.	WestMEC
55	Overlying technology on communication makes it more complex. We are struggling with terminology. Electronic skills need to be included here. Verbal skills are needed in this generation.	WestMEC
56	Social networking is a TOOL, not a skill. Has to be directed at communication.	WestMEC
57	Should social networking be included here? [Most people in the room indicated they use Facebook for NONsocial purposes.]	WestMEC
58	We have digital marketing teams in place.	WestMEC
59	Social networking needs restraints in place to be effective for business. Address managing public records, ethics.	WestMEC
59	Need awareness that people are still purchasing IN PERSON. Need to mix skill sets — employability in a technical context.	WestMEC



60	Geographically distributed teamwork may occur through open networks like facebook.	WestMEC
61	We need attitude, accountability, common sense, knowledge of how to treat a customer/potential customer, bilingualism	YUMA
62	There are professional conflicts with social networking (SN). It's not an interruption in their minds, but it shows up that way.	YUMA
63	In hospital, online applications are often completed as if texting a friend rather than "2" the employer. This is FREQUENT. It's difficult to screen qualified applicants.	YUMA
64	"You said WHAT on Facebook?!" What is the distinction between work and personal life? Some people are very good at use of technology – example, video game training.	YUMA
65	SN is GENERATIONAL. It's OK! What's the real problem? We find it's easy for someone to come in and look good at first [not good over long haul].	YUMA
66	SN for Business – SN is engrained in their beings. We have to embrace it because it draws, drives, creates a bigger audience for us. It's	YUMA
67	We don't have a challenge with entry level but simply finding skilled labor and retaining it. [Is this a changing industry requiring different sets of skills?] Yes, we spent 5 months looking for an online content manager.	YUMA

## WORKING ONLINE IN GEOGRAPHICALLY DISTRIBUTED TEAMS

### Statement

Geographically distributed teamwork may occur through open networks like facebook.

### Group

7

WestMEC

## COLLABORATION

Statement	Group
1 Complex Communication is important – transfer of knowledge is complexity, essential to a team.	CAVIT
2 Example, “Can’t have these 3 people working together – they don’t get along.” ?! Model communication!!!	CAVIT
3	
4 Collaborations skills are essential, an appreciation that I’m part of a bigger puzzle. The TEAM & COMPANY must show up and be shown.	CAVIT
5 Collaboration MORE of a challenge with social media. Technology increases the barriers.	CAVIT
6 Today’s Workplace: complex communication may include collaboration. Does the word “complex” change your response?	Combined
7 Part of the team	Combined
8 Collaboration	Combined
9 Collaboration – work together toward common goals, respectful of strengths and weaknesses. All phases of society need this.	Combined
10 Important to be on time, part of a team, to think critically and know how to think outside of the box.	PCJTED
11 An entry level employee is a TEAM MEMBER – employer and employee need awareness. Example, McDonalds entry to ownership	PCJTED
12 More can be accomplished for the good of the WHOLE if all have their eyes on it. Example, “You are part of the healing process for one person.” Attitude is worked upon by TEAM.	PCJTED
13 Collaboration and Initiative/Self-Direction are needed both in the education environment AND in the workplace, but they look different. How does this tie into my job in a company? What’s my part?	Px Cent.
14 Cultural Competency is at the top also. I do Intergenerational Training. We now have 4 generations in the workplace. There are barriers within organizations that are <u>in the way</u> of bringing people together to collaborate – age, race, etc. Probably based in perception. Leaders need to strike down myths, shoot for common goals. These are frequent problems among my clients.	Px Cent.
15 NSF grant thro’ MCCC. Teachers and students are being trained TOGETHER, creating collaboration between students and teachers (beyond apprehension to productivity).	Px Cent.
16 We have a collaborative CS effort in hospitality – UMOM, Humane Society	Px Cent.
17 Collaboration in this environment? Culture as generational and ethnicity. Includes technology, tension around practices for communication and styles. Email not being used anymore by youth – they’ve moved on (texting). Need new ways to bridge old gaps.	WAVE
18 As a COMMUNITY we collaborate, doing more with less money, and flexibility is a requirement. Creative ideas need to be acknowledged.	YUMA
19 Collaboration – may have a technical teamwork skill but lack the communicative ability that makes it work.	YUMA
20 Team vs. dictatorial leadership – need to recognize value of people we deal with. We are all members of the community in which we live, NOT touch-feely but realistic assessment. This is a part of collaboration.	YUMA

## LEGAL AND ETHICAL PRACTICE

Statement	Group	9
1 Legal and Ethical Practice*** and Professionalism – ½ of each session/lesson is on these 2	CAVIT	1
2 Honest, expecting people to be honest and open	Combined	1
3 Legal and ethical concerns	Combined	1
4 Honesty	Combined	1
5 Critical to have a conversation about expectations. Example, narcotics we missing and a nurse was identified. She said “I need help.” You work with a person like that. However, failure to admit such a mistake may have a different result.	CTD	1
6 Re: Penalty of Perjury document signed. We tell new hires that we are a Type A Company – do what you signed up to do! “One of you is going to get fired this week because you’ll decide not to show up.”	CTD	1
7 Employee honesty is important and changes the consequences for mistakes.	CTD	1
8 Need to understand that there are consequences for lack of awareness.	CTD	1
9 Things are innocently said that create a lot of problems. At County we can’t get on social media, but people bring phones in. To them [young] it’s not a breach of ethics – we talk about it.	CVIT	1
10 They’re not being taught the ethics of Social Media use.	CVIT	1
11 Inability to pass a drug screening. We have a lot of training on this. Drug tests before hire, then randomly once hired.	CVIT	1
12		
13 San Carlos is building a huge hospital, hiring native first. By the time 31 people got through that drug testing, only 11 were left.	CVIT	1
14 Legal and ethical skills are a major issue.	CVIT	1
15 Lack of self-control.	CVIT	1
16 “Your kids cheating.” “Nah, not my kid.”	CVIT	1
17 Effect on bottom line. Example, giving away subs on the job as community service.	CVIT	1
18 Social Networking for Biz – connection to Ethics. “Appropriate” use impacts employability, social responsibility.	CVIT	1
19 Ethics – putting in hours of WORK, finding something to do.	CVIT	1
20 Students like collaborating. The #1 issue is ethics. They have no problem stealing. It is socially acceptable. Not business ethics, just plain ethics. Example, clothing, giving subs to friends for a total of \$60K for the year – didn’t understand that it was wrong because he wasn’t taking them himself.	EVIT	1
21 Students are highly creative about working around ethical concerns they don’t like.	EVIT	1
22 Legal and Ethical – this is basic. A job is a privilege. This is not taught in our schools. Ethics, values and religion were taught in my school. [This gen says] “I expect to be treated the way I want to be treated.”	Px Cent.	1
23 Corporations/businesses have taken so much away from the employee that there is no loyalty any longer, in either direction. Example, Wisconsin cutting pensions. Entitlement vs. Loss (loyalty and resources)	Px Cent.	1
24 We are looking for: people who show up on time, know who the boss is, are serious about safety on the job site, and don’t rip off the business.	YUMA	1



- 29
- Communication competency is huge – explanations to customers. 90% of our employees are local and under the age of 26. Example, 24 year old, married with baby, had problem running off mouth. He said the wrong thing to the wrong person. Thought he should be treated special – lost his \$50/hour job. We have a no tolerance policy for this kind of behavior. How do you teach Manners? CTD
- 30 In my field and with societies characteristics, Professionalism. Appearance matters to a patient in healthcare. Their life is in your hands. This is #1! CTD
- 31 Important to be on time, dependable, accountable, asking questions, dress for others not self. Example, entrepreneurship program created a fictitious business and people in field judged and critiqued everything about it. CTD
- 32 Launch in Life program includes: finances, interviewing techniques, resume writing, knowing individual skill sets, understanding connection between education and quality of life. 4H is taking the curriculum to U of A for peer review in order to prepare for a statewide launch. CTD
- 33 Majority of our hires are associate level. We have online courses and employees say “who’s going to pay me to spend time on this?” They want to do it on work time. The more diverse your skills, the more I can use you. They ask, “How much do you make? I want your job.” CTD
- 34 Critical to have a conversation about expectations. Example, narcotics we missing and a nurse was identified. She said “I need help.” You work with a person like that. However, failure to admit such a mistake may have a different result. CTD
- 35 Several steps and retraining related to mistakes. CTD
- 36 Re: Penalty of Perjury document signed. We tell new hires that we are a Type A Company – do what you signed up to do! “One of you is going to get fired this week because you’ll decide not to show up.” CTD
- 37 Professionalism – come to work on time. Because of the lack of discipline, we don’t hire kids anymore, and the store used to be a training ground. CVIT
- 38 Kids who got mad and walked off the job into the military came back and apologized. CVIT
- 39 We have employees come in late and leave early. They’ve lost the drive of older workers. Responsibility was something we learned from mothers/fathers. Now people see no consequence in letting other workers down. CVIT
- 40 Inability to pass a drug screening. We have a lot of training on this. Drug tests before hire, then randomly once hired. CVIT
- 41
- 42 San Carlos is building a huge hospital, hiring native first. By the time 31 people got through that drug testing, only 11 were left. CVIT
- 43 Legal and ethical skills are a major issue. CVIT
- 44 Lack of self-control. CVIT
- 44 “Your kids cheating.” “Nah, not my kid.” CVIT
- 45 Things are innocently said that create a lot of problems. At County we can’t get on social media, but people bring phones in. To them [young] it’s not a breach of ethics – we talk about it. CVIT
- 46
- 47 In class we do pod casts. Kids don’t understand the ethics behind Facebook. Example, taunting other students electronically. CVIT
- 47 Or kids posting things that a potential employer can find on the web. Loud ring tones. Texting all the time. CVIT
- 48 Example, a picture of a student drinking ruined her application for a scholarship. We need to emphasize these stories. CVIT
- 49 They’re not being taught the ethics of Social Media use. CVIT
- 50 Ethics – putting in hours of WORK, finding something to do. EVIT
- 51 We take for granted that kids have some kind of work ethic. Example, a young man did all of the work on his boss’s list, so he went home at 1:00 instead of 5:00. EVIT
- 52 Be professional EVIT

53	Need to set boundaries – awareness, understanding, issues of entitlement – where are the lines?	EVIT
54	Translate skills to business, establish differences.	EVIT
55	Work ethic vs. sense of entitlement. Entry levels need to WORK their way up, starting with Excel, Word, etc.	EVIT
56	Where is the work ethic taught? College? Grade school? Where is the commitment? Is it a course, a standard procedure?	EVIT
57	Example, used the scout oath as an instructional tool at Harvard Business School.	EVIT
58	Work ethic was taught in elementary school and at home on the farm. Home historically is the place. The idea of increasing accountability through school years is there as well.	EVIT
59	Electronic media skills– pervasive web surfing, Facebook (FB) needs to be addressed.	NAVIT
60	Doing a good job to KEEP a job	NAVIT
61	example, employee failed to tell employer he would be gone for a few days	NAVIT
62	Intrinsic motivation. Pride in work. How do we teach this?	NAVIT
63	“if you’re scheduled to go to work, go to work!” Attendance is my hot button – determines who I’m going to “like.”	NAVIT
64	We find Monday and Friday absences are high.	NAVIT
65	This is critical to business because I don’t staff my store extra for this. Direct impact on bottom line.	NAVIT
66	City of Holbrook requires doctor notes for Monday and Friday absences.	NAVIT
67	When we interview, these items are critical to us as well as 10 key and math. Also need to come in with enthusiasm and professionalism or they won’t get/keep the job.	NAVIT
68	We would hire for ATTITUDE and train for aptitude.	NAVIT
69	I can teach someone how to drive a bus, but I need them to show up smiling, ready to learn.	NAVIT
70	We hire for attitude (this is the buster for me) but we do need the mechanical things.	NAVIT
71	I hired a 60 year old hair dresser and trained her to be a bank teller. She is now a senior teller. When I first hired her, my colleagues thought I was crazy.	NAVIT
72	Drivers on delivery – good attitude is essential (ex. concrete). It reflects on company.	NAVIT
73	Important to be on time, part of a team, to think critically and know how to think outside of the box.	NAVIT
74	C&I can be negated in the workplace and students need to understand this and that it may stimulate other ideas. It requires persistence and takes time. Perhaps more important is enthusiasm.	PCJTED
75	Also concerned with how people answer questions as well as ask.	PCJTED
76	Example, professional email accounts, not crazysoccerchic99@....	PCJTED
77	Need to know what is appropriate on Facebook and mySpace (etiquette)	PCJTED
78	Professionalism, Complex Communication, Divergent & Critical Thinking	Px Cent.
79	Professionalism and the basics of reading and writing	Px Cent.
80	Being on time and present is something we value.	Px Cent.
81	It is hard to get people to come into the utility industry. It takes many years of hard work, with swing shifts, danger and a steep training curve. Instant gratification? Zero.	Px Cent.
82	More emphasis needed on character - ► How do you keep up with that, manage that? ► It’s an issues of diversity. Character is not the same in different cultures. ► Does this have to do with professionalism?	WAVE
83	Policies and procedures at all levels with my company say NO texting, NO FB.	WAVE
84	Youth assume texting is appropriate.	WAVE
85	Youth are not using technology to their advantage at work – generally social use	WAVE



- 86 At Mohave Correctional we employ 600. They CANNOT bring cell phones into the facility. Doing so may result in termination. FB and twitter are blocked. WAVE
- 87 Basics: speak to people, math, show up on time, dress properly, hygiene – the rest employers want to train. WestMEC
- 88 We need attitude, accountability, common sense, knowledge of how to treat a customer/potential customer, bilingualism YUMA
- 89 Are they able to articulate what's been done in the past? Are they able to describe the systems they use? We gather information through questions. We also do 2-way communication checks. YUMA
- 90 Professionalism because they are dealing with personal information (healthcare) YUMA
- 91 There are professional conflicts with social networking (SN). It's not an interruption in their minds, but it shows up that way. YUMA
- 92 In hospital, online applications are often completed as if texting a friend rather than "2" the employer. This is FREQUENT. It's difficult to screen qualified applicants. YUMA
- 93 We are looking for: people who show up on time, know who the boss is, are serious about safety on the job site, and don't rip off the business. YUMA
- 94 Example, To boss: "How's it going? Can I borrow money?" YUMA
- 95 It's the Google effect, seeing how it is elsewhere and wanting to create if for one's self. "Can I bring my dog to work?" YUMA
- 96 Can we teach attitude? of do circumstances change this? Businesses are not social service agencies – they need to profit. YUMA
- 97 We can't manage attitude, only behaviors. YUMA
- 98 "You said WHAT on Facebook?!" What is the distinction between work and personal life? Some people are very good at use of technology – example, video game training. YUMA
- 99 The psyche of all people is affected by one who doesn't engage on the job (lazy) CVIT

## INITIATIVE AND SELF DIRECTION

Statement	Group
1 Timeliness (ability to manage self) – Professionalism? Must learn to BE THERE. Initiative & Self-Direction? No. As an employer, I manage their activities.	CAVIT
2 Initiative & Self-Direction – someone that doesn't WAIT to be told what to do.	CAVIT
3 Attitude**	Combined
4 Be Present	Combined
5 Soft Skills: showing up on time, dependability, maturity, integrity*, communication	Combined
6 Pride in a job well done	Combined
7 Lead by example	Combined
8 There are times when it's important NOT to go beyond what I'm asked to do. It may create problems. Example, injury. Critical Thinking includes knowing your limits.	Combined
9 If asking questions is encouraged, it improves the dialog and builds relationships.	Combined
10 Initiative and self-direction*, self-motivation	Combined
11 Confidence**	Combined
12 Respect of self and others** (given and received)	Combined
13 Filling out an application and resume properly, interview preparation	Combined
14 Asking has to do with confidence, self-esteem, respect of self and others. Example, college student went to another department to ask a question – did not ask me!	Combined
15 How important is it to have people take initiative vs. waiting for direction?	Combined
16 In our organization we measure employees on initiative, to look past the job they're doing to the next job.	Combined
17 If you don't know something, go ASK. Can I? Should I? Don't guess.	Combined
18 Leadership is missing. Skills need to be LEARNED and TRAINED.	Combined
19 Important to be on time, dependable, accountable, asking questions, dress for others not self. Example, entrepreneurship program created a fictitious business and people in field judged and critiqued everything about it.	CTD
20 Texas Instruments interviewed 12 graduate students from ivy league schools – none of them got through the 3 day process because of their lack of ability to TRY, to ask questions, maybe make a mistake.	CTD
21 Looking at kids and generations, we need to allow them to use the tools they're comfortable with AND expect them to be on time, ask questions, etc.	CTD
22 Initiative and self direction. Example, In & Out Burger staff – no one stands over them. They do what needs to be done when it needs to be done. They are told, "You have the power to do what needs to be done."	CTD
23 I'm younger, have been in my job 15 years and like it. I see Initiative and Self Direction as a challenge. No one manages my time or schedule – I love it.	CTD
24 Kids need to compete for jobs in THEIR areas of interest. try to find something that will prepare/lead them to their interest. Don't disqualify yourself because of lack of training.	CTD
25 The psyche of all people is affected by one who doesn't engage on the job (lazy)	CVIT
26 Common thread – LISTENING skills needed. Not enough DISCOURSE. Inability to follow, understand, weak attention span...	CVIT
27 Empowered to do what they want.	CVIT

28	Re: lack of ability to take initiative and stay with it. We do a lot of cajoling and use incentives. Where's the motivation gone? They don't get that it's THEIR responsibility.	CVIT
29	Kids that go the vocational track have a different attitude about learning.	CVIT
30	Dad bought a truck farm to teach my brother and I how to work. Grew up thinking of WORK as a way of life. 9 of 18 grandkids have doctorates. There's a seed planted somewhere that further training is important.	EVIT
31	Intrinsic motivation. Pride in work. How do we teach this?	NAVIT
32	"if you're scheduled to go to work, go to work!" Attendance is my hot button – determines who I'm going to "like."	NAVIT
33	We would hire for ATTITUDE and train for aptitude.	NAVIT
34	I can teach someone how to drive a bus, but I need them to show up smiling, ready to learn.	NAVIT
35	We hire for attitude (this is the buster for me) but we do need the mechanical things.	NAVIT
36	I hired a 60 year old hair dresser and trained her to be a bank teller. She is now a senior teller. When I first hired her, my colleagues thought I was crazy.	NAVIT
37	Drivers on delivery – good attitude is essential (ex. concrete). It reflects on company.	NAVIT
38	Asking questions	NAVIT
39		NAVIT
40	Example, complexities of onsite operation of road paving. Time is money – ours and yours – inability to measure and move material properly and inability to COMMUNICATE have consequences for time and profitability. Needed employability skills are attitude and teachability.	NAVIT
41	Initiative	NAVIT
42	example, welder on trial – he was good but literally had to be told every step	NAVIT
43	Accountability needed, young people have entitlement, sense that employer is accountable to them	NAVIT
44	My bigger concern is students who aren't driven toward a career. People taking what they can get.	NAVIT
45	We need them to be thinking about a JOB as part of something larger. Your job is to make sure the customer is happy and the company profits.	NAVIT
46	Teaching skills – "Yes, I know how to lay a block." ► Well, 4 blocks an hour is NOT proficiency!	NAVIT
47	I remember when McDonald's first opened. They hired all young men who were smiling and happy. No more. Have we employers lowered our standards?	NAVIT
48	It's important to be able to ask questions – kids are trained that it's NOT okay.	NAVIT
49	Initiative, making own decisions	PCJTED
50	There's an inability to concentrate, be present, focus on work/a challenge.	PCJTED
51	We program our students – what to learn and how to learn – and it's difficult for them to take initiative, have self-direction.	Px Cent.
52	Initiative & Self-Direction have to be the greatest areas lacking across industries. Still is a high expectation that is not met here. May change 2 gens down the road – and not necessarily tied to a generation 0 but is now a problem. We created/perpetuated entitlement. Job loss/sustainability of self could lead to greater responsibility for self with expectation.	Px Cent.
53	Collaboration and Initiative/Self-Direction are needed both in the education environment AND in the workplace, but they look different. How does this tie into my job in a company? What's my part?	Px Cent.
	I would rather have someone take the initiative and do it wrong than not try. Is this a leadership issue?	Px Cent.

- 54 Youth become passive in life experiences because of the DRAMA around them. We incorporate life skills, ending the drama, developing an ability to choose. We see they're caught in a generational cycle. Need to empower them to make decisions to keep them safe. WAVE
- 55 911 hotline – self direction is essential, no time to ask questions. Computational thinking important here too. WAVE
- 56 Initiative and self direction, ability to step out of the comfort zone WAVE
- 57 Waiting to be told doesn't work in social services – need initiative WAVE
- 58 Do I, as an employee, have the initiative/accountability to follow the policies of my job? (regardless of culture) WAVE
- 59 Don't see anything on here that we WOULDN'T embrace. As an educator, we tell our kids what to expect. "You are EXPECTED to ask questions." Sometimes our language gets above them. "It will show me you are a good employee if you ask questions."
- 60 We need attitude, accountability, common sense, knowledge of how to treat a customer/potential customer, bilingualism YUMA
- 61 Are they able to articulate what's been done in the past? Are they able to describe the systems they use? We gather information through questions. We also do 2-way communication checks. YUMA
- 62 Top 3: divergent/critical thinking; complex communication; self-direction/motivation YUMA
- 63 Ability to ask questions essential or won't be able to perform successfully – it's obvious YUMA
- 64
- 65 We've noticed brazen behavior, entitlement, disregard of hierarchy in a tendency to go straight to the top and skip their supervisor. YUMA
- Part of our new hire discussion is "Don't skip over your supervisor!" YUMA

## FLEXIBILITY/ADAPTABILITY

Statement	Group
1 Adaptability	Combined
2 Flexibility in the workplace	Combined
3 Looking at kids and generations, we need to allow them to use the tools they're comfortable with AND expect them to be on time, ask questions, etc.	
4 Flexibility and Open mindedness – educators with a willingness to work as a team	CTD
5 In healthcare, we respect and value all these skills – adaptability, diversity with technology.	EVIT
6 About one employee – “How adaptable are you to change? Are you willing to learn a truck from one end to the other and to track everything?” The company helped him transfer skills.	EVIT
7 National shortage of truck drivers now. Are drivers willing to learn and change to get the work?	NAVIT
8 Cross training – need employees to be able to handle multiple jobs in the company.	NAVIT
9 Flexibility/adaptability – evolution concept, ability to change and be part of change	NAVIT
10 People need to reconsider strong opinions. There's a need for flexibility.	Px Cent.
11 Retooling, adaptation, flexibility – all skills the millenials are better at than older gens. There's an increased need here.	WAVE
12 Organizations need to create an environment for it. Includes the ability to change quickly and effectively. It's critical that employees think “There's a better way to do this!”	WAVE
13 Adaptability of self to fulfill the mission of the organization.	WestMEC
14 flexibility – “that's not my job.” We focus too much attention on the job description.	WestMEC YUMA

## FINANCIAL LITERACY

13

Statement	Group
1 Financial industry needs skilled people as CLIENTS. Kids don't know how to manage \$.	Combined
2 Launch in Life program includes: finances, interviewing techniques, resume writing, knowing individual skill sets, understanding connection between education and quality of life. 4H is taking the curriculum to U of A for peer review in order to prepare for a statewide launch.	CTD
3 Also percentages, counting change	NAVIT
4 I'm consumed with my business surviving and lack in this area among employees. If employees recognize what it means to have their business on the line, it challenges them to express Creativity and Innovation (C&I).	PCJTED
5 AZ Counts conversation: expecting kids to understand year 2 Algebra exponential functions but not showing the application to credit cards and personal finance.	WAVE
6 Finances. Need a general business class that teaches the "system" including personal finances. Business is about profitability, and when I contribute it passes along to me. This is "focused pride."	WestMEC
7 How important is financial literacy?	WestMEC
8 It impacts company value and productivity. If people can't manage their own resources, how are they managing yours?	WestMEC
9 Can this be a course? There is a critical parental piece here as well.	WestMEC
10 Financial literacy/economics – including personal	YUMA

## GENERATIONAL CULTURE

Statement	Group
1 Timeliness and such behaviors should be practiced in relationship to classes. Example, allowing extra credit in place of timely submission of work. BUT superintendents get calls from parents who want their child off the hook. Parents actually enable it and wear teachers down.	CAVIT
2 “Lack of identity keeps me employed.” Don’t identify too closely with the job.	CAVIT
3 We lose students during the application process because of the lack of desire to work. They do not persist over the long haul. They’re looking for instant gratification in social networking.	CAVIT
4 “Helicopter Parent” – hovering. Is this part of the lack of skills in young people?	CAVIT
5 Millennial learners – generation differences – respect for workplace and boss vs. working for an experience. Example, will give up a good job to go to Costa Rica and zip line. Difference in expectations.	CAVIT
6 “I don’t care what I’m going to LEARN. I care about what I’m going to DO.”	CAVIT
7 Odd with millennials who learn to take risks and make mistakes in video games	CAVIT
8 Parenting is at issue.	CAVIT
9 Generational differences are a form of culture. Example, “teenager” students/teens unreceptive to ASKING – are we receptive to BEING asked?	CAVIT
10 Teachers lacking skills in creating an environment where students are comfortable asking.	CAVIT
11 Our kids are moving into the unknown pull of the future, requiring that WE have a different approach to their development.	CAVIT
12 We need to be careful about appearance in determining a person’s abilities. Non judgmental.	Combined
13 Relationship building*	Combined
14 Intergenerational skills	Combined
15 Hiring: May present well but does not possess the skills (good “camo”)	Combined
16 Address the sense of entitlement	Combined
17 Generational issues	Combined
18 Entitlement issues	Combined
19 RE “camo” - Camouflage can be maintained through the 6 month probation period...	Combined
20 It’s related to entitlement. They expect info to be handed to them.	Combined
21 Regarding millennials – we need to be cognizant of how WE have come up and not implicate them – not filtering our perception onto them.	Combined
22 Need to have THEIR values understood and recognized. Could a millennial teach me something? What can we learn from each other?	Combined
23 I’m a BABY BOOMER! I get caught up in being judgmental. This bothers me.	Combined
24 Looking at kids and generations, we need to allow them to use the tools they’re comfortable with AND expect them to be on time, ask questions, etc.	CTD
25 Need to understand that there are consequences for lack of awareness.	CTD
26 We allow teleworking when possible. This generation is different. However, you don’t get out there straight from high school.	CTD
27 I’m younger, have been in my job 15 years and like it. I see Initiative and Self Direction as a challenge. No one manages my time or schedule – I love it.	CTD
28 Majority of our hires are associate level. We have online courses and employees say “who’s going to pay me to spend time on this?” They want to do it on work time. The more diverse your skills, the more I can use you. They ask, “How much do you make? I want your job.”	CTD



- 28 Our generation and before, people kept jobs for a long time. The expectation now is 15 jobs in 25 years. They don't want to give and we (Boomers) will not give. Requires Cultural Competency. Globally, too. CTD
- 29 "Kids are apathetic." – this is not necessarily true. They just lack skills. CTD
- 30 Kids don't want to stay anywhere for more than 1-2 years. CTD
- 31 Entitlement – "I deserve that job." Shouldn't have to work for it/earn it. CTD
- 32 People re-entering have gone through transition, often undergone new training. They're terrified of making a mistake and losing their job. CTD
- 33 A person my age (45) that comes into a shop and does something wrong "gets it." CTD
- 34 I've seen recruiting from many angles (coach, educator, business). I see that we enable kids – at school, at home. Example, couldn't get one high school student put his name on his paper. He said it's because his teachers did it for him before - ?!
- 35 "World awareness" is lacking. Kids don't know where they are and how they got there. Example of son not knowing where he was to tell Dad how to get there to pick him up. This is true with the young people at my company. CTD
- 36 My daughter has "keyboarding" skills – we had "penmanship." I had to back off of her bad penmanship when I realized that I don't write very often myself. CTD
- 37
- 38 The company Tenacity is a business based on expectations. Mutual expectations are set or we go our own ways. The easiest way to avoid a fight is to make a good hire. Better to walk away from an offer. Need to teach kids how to articulate THEIR expectations. CTD
- 39 Things are innocently said that create a lot of problems. At County we can't get on social media, but people bring phones in. To them [young] it's not a breach of ethics – we talk about it. CVIT
- 40 They're not being taught the ethics of Social Media use. CVIT
- 41 Inability to pass a drug screening. We have a lot of training on this. Drug tests before hire, then randomly once hired. CVIT
- 42 San Carlos is building a huge hospital, hiring native first. By the time 31 people got through the drug testing, only 11 were left. CVIT
- 43 Legal and ethical skills are a major issue. CVIT
- 44 Lack of self-control. CVIT
- 45 "Your kids cheating." "Nah, not my kid." CVIT
- 46 In class we do pod casts. Kids don't understand the ethics behind Facebook. Example, taunting other students electronically. CVIT
- 47 Or kids posting things that a potential employer can find on the web. Loud ring tones. Texting all the time. CVIT
- 48 Example, a picture of a student drinking ruined her application for a scholarship. We need to emphasize these stories. CVIT
- 49 We can't stop the wheels from turning. How can we incorporate it into our workforce? How do we USE those tools and skills? CVIT
- 50 We have twitter, Facebook, blog@Resolution Copper. We have only a couple who know how. CVIT
- 51 Have to stay on top of Social Media because it changes so quickly. People now are choosing where they eat and go based on info online. CVIT
- 52 Re: lack of ability to take initiative and stay with it. We do a lot of cajoling and use incentives. Where's the motivation gone? They don't get that it's THEIR responsibility. CVIT
- 53 Kids who got mad and walked off the job into the military came back and apologized. CVIT
- 54 We have employees come in late and leave early. They've lost the drive of older workers. Responsibility was something we learned from mothers/fathers. Now people see no consequence in letting other workers down. CVIT
- 55 Communication is an issue. CVIT

55	Need to be able to have a normal conversation.	CVIT
56	Lot of issues: not professional, texting, no respect – if you aren't taught that at home, it keeps going.	CVIT
57	We've heard that the economic pressure on the home is a problem. From 1 parent working/1 at home, now 2 work, creating a mess with the kids.	CVIT
58		
59	We have students with parents in jail, no food, no way to get to school – so many problems in a school day that it's difficult to educate. This is the gap. Older gen doesn't get this. Younger gen is tuned in. We need to hire people with these skills. My young staffer keeps me aware of these things.	CVIT
60	Students are highly creative about working around ethical concerns they don't like.	CVIT
61	Dad bought a truck farm to teach my brother and I how to work. Grew up thinking of WORK as a way of life. 9 of 18 grandkids have doctorates. There's a seed planted somewhere that further training is important.	EVIT
62	We take for granted that kids have some kind of work ethic. Example, a young man did all of the work on his boss's list, so he went home at 1:00 instead of 5:00.	EVIT
63	Need to set boundaries – awareness, understanding, issues of entitlement – where are the lines?	EVIT
64	Translate skills to business, establish differences.	EVIT
65	Work ethic vs. sense of entitlement. Entry levels need to WORK their way up, starting with Excel, Word, etc.	EVIT
66	What drove our Auto Industry technicians to be techs? 1. Need to solve problems 2. Need for appreciation 3. \$\$\$	EVIT
67	8% of our students are from blended families and need a lot of praise to succeed. This population may think of themselves as LOSERS. Average age is 17, but up to 21. The issue is not age dependent.	EVIT
68	Need feedback in general – they have insecurities about skills. Employers need to be aware of this.	EVIT
69	Instability at home is a challenge here.	EVIT
70	Electronic media skills– pervasive web surfing, Facebook (FB) needs to be addressed.	NAVIT
71	Kids communicate so well via texting and FB but not one on one. ► affects ability to communicate face to face with a customer. ► saying “like” 30 times ► maybe we should start doing our interviews with US texting.	NAVIT
72	Accountability needed, young people have entitlement, sense that employer is accountable to them	NAVIT
73	Our life skills class taught communicating on a topic. Kids from single parent/blended homes often mediating for their families. We provided this training that was not necessarily taught at home.	NAVIT
74	I remember the same with my generation – perhaps this is learned.	NAVIT
75	It's a middle management problem. MM does not know how to supervise the younger gen.	NAVIT
76	Loyalty issue. Example, grandfather worked for company for 60 years. a kid will jump to a new job for 60 cents on the hour.	NAVIT
77	More young people want to use self-serve options, older people want assisted service. Most don't want people following them around the store.	NAVIT
78	“I'm bored” on the job. In construction, we modified equipment to be more like gaming, then created a competition to simulate it. Still “I'm bored.”	NAVIT
79	“Is this generational?” ► “Well, I did it 40 years ago...” (Laughter)	NAVIT
80	Mom and Dad create entitlement by baling kids out all the time.	NAVIT
81	This is the student's world – they are designing apps for Apple.	NAVIT
82	Interacting with adults – students need to be able to separate/assess what is their own issue, what is the adult's.	PCJTED

- 83 Consider youth homeplace environments when looking at the workplace. We need to help youth make distinctions between business and intimate communication. PCJTED
- 84 What I heard today tells me that employers need to catch up on working with this next generation. **\*\*VITALLY IMPORTANT\*\*** PCJTED
- 85 Legal and Ethical – this is basic. A job is a privilege. This is not taught in our schools. Ethics, values and religion were taught in my school. [This gen says] “I expect to be treated the way I want to be treated.” Px Cent.
- 86 Most of us don’t even have a fundamental understanding of where our kids are and what they need to learn. Texting – we used to laugh and now it’s essential to us. Px Cent.
- 87 ADD behavior is rewarded. “Move fast and break things” is the facebook motto. This is our younger generation at work. Resumes are going to be useless since reputation is built online. Good – bad – none – what’s your online reputation? People that get what’s going on don’t make the decisions and vice versa. Px Cent.
- 88 Cultural Competency is at the top also. I do Intergenerational Training. We now have 4 generations in the workplace. There are barriers within organizations that are in the way of bringing people together to collaborate – age, race, etc. Probably based in perception. Leaders need to strike down myths, shoot for common goals. These are frequent problems among my clients. Px Cent.
- 89 Initiative & Self-Direction have to be the greatest areas lacking across industries. Still is a high expectation that is not met here. May change 2 gens down the road – and not necessarily tied to a generation 0 but is now a problem. We created/perpetuated entitlement. Job loss/sustainability of self could lead to greater responsibility for self with expectation. Px Cent.
- 90 I see this a lot between generations. They see that there are different expectations but they want others to value what they value. Example, younger with technology skills. Px Cent.
- 91 Gap due to age, value systems, upbringing, challenges we would not imagine in a previous time. Example, movies – there’s a desensitization of our ideas, a layer of callousness and apathy. Px Cent.
- 92 Community colleges are doing a good job bringing in biz/industry. Maybe this needs to happen more. What we thought was challenging is not the same with youth. They need a different challenge. Px Cent.
- 93 Basic skills for entry level jobs are missing. This is generational and economic. We’ve had to look to other countries to supplement our workforce. It takes a year to find a mining engineer. Px Cent.
- 94 Need to focus on what motivates the workforce. Our employees are most motivated by Recognition (which is what we sometimes perceive as entitlement). There are subtle nuances in how this is portrayed. They are motivated second by Giveback, third by \$\$\$. Example, a young man from Japan started a Give Back program “Socks for Japan.” A letter accompanied each pair of socks with an email address to enable a connection – a personal connection. Px Cent.
- 95 Retooling, adaptation, flexibility – all skills the millennials are better at than older gens. There’s an increased need here. WAVE
- 96 Collaboration in this environment? Culture as generational and ethnicity. Includes technology, tension around practices for communication and styles. Email not being used anymore by youth – they’ve moved on (texting). Need new ways to bridge old gaps. WAVE
- 97 Youth assume texting is appropriate. WAVE
- 98 Youth are not using technology to their advantage at work – generally social use WAVE
- 99 At Mohave Correctional we employ 600. They CANNOT bring cell phones into the facility. Doing so may result in termination. FB and twitter are blocked. WAVE
- 100 Use of social media is situational. WAVE

101 Youth become passive in life experiences because of the DRAMA around them. We incorporate life skills, ending the drama, developing an ability to choose. We see they're caught in a generational cycle. Need to empower them to make decisions to keep them safe. WAVE

102 What about millennials? WAVE

103 Technical skills not just the issue. Youth need to BE THANKED. What? They get a paycheck! This creates a problem with employer/employee relationship. WAVE

104 When does the employee get to decide how they communicate? WAVE

105 We have discipline issues in a public school setting due to parenting decisions – entitlement, manipulation, not SEEING the writing on the wall (really) WAVE

106 Parents are enabling certain behavior WAVE

107 Someone needs to get backbone and say enough! Follow rules or get out WAVE

108 Older gens without technical skills are having trouble – applications are online – no more paper. WAVE

109 “You said WHAT on Facebook?!” What is the distinction between work and personal life? Some people are very good at use of technology – example, video game training. YUMA

110 SN is GENERATIONAL. It's OK! What's the real problem? We find it's easy for someone to come in and look good at first [not good over long haul]. YUMA

111 SN for Business – SN is engrained in their beings. We have to embrace it because it draws, drives, creates a bigger audience for us. It's encouraged for a specific purpose [example, the paper]. YUMA

112

113 We've noticed brazen behavior, entitlement, disregard of hierarchy in a tendency to go straight to the top and skip their supervisor. YUMA

114 Part of our new hire discussion is “Don't skip over your supervisor!” YUMA

115 Example, To boss: “How's it going? Can I borrow money?” YUMA

116 It's the Google effect, seeing how it is elsewhere and wanting to create if for one's self. “Can I bring my dog to work?” YUMA

117 Training on “formal” communication and protocols is needed cross-generationally. YUMA

118 Millennials require care and feeding, supervision and management, need to “know who the boss is.” YUMA

119 Relationships at work aren't as important to them as those outside. YUMA

120 This generation wants results now and will try to get them – over you. YUMA

121 We have intergenerational workshops with supervisors or nurses at the hospital, covering how differences in home life, technology have shaped the younger generation differently. Family might be less stable, jobs less stable, or “a better job around the corner.” YUMA

122 Millennials know what's right but choose not to do it. They are challenging the process. YUMA

## ORGANIZATIONAL CULTURE

Statement	Group
1 If you don't know something, go ASK. Can I? Should I? Don't guess.	Combined
2 Example, Fairchild engineers: VPs would come from NY to the plant. Engineers and workers would watch drivers sitting out in the heat and decided something needed to change. They started their own company – Intel: dress as you want; work where you want; put in your 40 hours.	Combined
3 What is appropriate for DIFFERENT jobs? example, game store – a nose ring is appropriate.	Combined
4 Do more with less: Less employees, less supervision, need self-direction	Combined
5 Organizational issues	Combined
6 Majority of our hires are associate level. We have online courses and employees say “who’s going to pay me to spend time on this?” They want to do it on work time. The more diverse your skills, the more I can use you. They ask, “How much do you make? I want your job.”	CTD
7 Our generation and before, people kept jobs for a long time. The expectation now is 15 jobs in 25 years. They <u>don’t want to give</u> and we (Boomers) <u>will not give</u> . Requires Cultural Competency. Globally, too.	CTD
8	
The company Tenacity is a business based on expectations. Mutual expectations are set or we go our own ways. The easiest way to avoid a fight is to make a good hire. Better to walk away from an offer. Need to teach kids how to articulate THEIR expectations.	CTD
9 Critical to have a conversation about expectations. Example, narcotics we missing and a nurse was identified. She said “I need help.” You work with a person like that. However, failure to admit such a mistake may have a different result.	CTD
10 Important to be on time, dependable, accountable, asking questions, dress for others not self. Example, entrepreneurship program created a fictitious business and people in field judged and critiqued everything about it.	CTD
11 Initiative and self direction. Example, In & Out Burger staff – no one stands over them. They do what needs to be done when it needs to be done. They are told, “You have the power to do what needs to be done.”	CTD
12	
Communication competency is huge – explanations to customers. 90% of our employees are local and under the age of 26. Example, 24 year old, married with baby, had problem running off mouth. He said the wrong thing to the wrong person. Thought he should be treated special – lost his \$50/hour job. We have a no tolerance policy for this kind of behavior. How do you teach Manners?	CTD
13 Several steps and retraining related to mistakes.	CTD
14 Some jobs the “look” is different. Example, Abercrombie & Fitch – flip flops and jeans. They don’t understand why they can’t look the same in healthcare.	CTD
15 We have a union that sets the tone for corrective action. If not safety related, we start with a counseling session.	CTD
16 We set people up for failure if we don’t tell them our expectations.	CTD
17 This is the gap. Older gen doesn’t get this. Younger gen is tuned in. We need to hire people with these skills. My young staffer keeps me aware of these things.	CVIT
18	
These have to be ENTRY LEVEL skills. After 35 years in the mine, we were an effective group (leadership, decisions, taking imitative).	CVIT
19 “I’m bored” on the job. In construction, we modified equipment to be more like gaming, then created a competition to simulate it. Still “I’m bored.”	NAVIT
20 Cross training – need employees to be able to handle multiple jobs in the company.	NAVIT

- 21 Example, complexities of onsite operation of road paving. Time is money – ours and yours – inability to measure and move material properly and inability to COMMUNICATE have consequences for time and profitability. Needed employability skills are attitude and teachability. NAVIT
- 22 I remember when McDonald's first opened. They hired all young men who were smiling and happy. No more. Have we employers lowered our standards? NAVIT
- 23 City of Holbrook requires doctor notes for Monday and Friday absences. NAVIT
- 24 It's different depending on the business NAVIT
- 25 We changed payroll to MONDAY this was such a problem. NAVIT
- 26
- 27 An entry level employee is a TEAM MEMBER – employer and employee need awareness. Example, McDonalds entry to ownership PCJTED
- 28 Entrepreneurship – more than a movie, it's the elemental things: Where do I get the supplies? What do I need? How do I pay for it? PCJTED
- 29 We must let students understand OUR cultural norms. PCJTED
- 30 Employees need to know the history of the business PCJTED
- 31 What are the "signs" of organizational culture? PCJTED
- 32 Is there a need to assimilate before change can be made in an organization? PCJTED
- 33 Culture includes business and personal (coworkers) PCJTED
- 34 Awareness, "leave self behind" to succeed. PCJTED
- 35 Young people need to understand an organization's culture – assess, collect data, ask questions, make decisions in context – Participation for Success. PCJTED
- 36 ADD behavior is rewarded. "Move fast and break things" is the facebook motto. This is our younger generation at work. Resumes are going to be useless since reputation is built online. Good – bad – none – what's your online reputation? People that get what's going on don't make the decisions and vice versa. Px Cent.
- 37 Cultural Competency is at the top also. I do Intergenerational Training. We now have 4 generations in the workplace. There are barriers within organizations that are in the way of bringing people together to collaborate – age, race, etc. Probably based in perception. Leaders need to strike down myths, shoot for common goals. These are frequent problems among my clients. Px Cent.
- 38 Need to focus on what motivates the workforce. Our employees are most motivated by Recognition (which is what we sometimes perceive as entitlement). There are subtle nuances in how this is portrayed. They are motivated second by Giveback, third by \$\$\$. Example, a young man from Japan started a Give Back program "Socks for Japan." A letter accompanied each pair of socks with an email address to enable a connection – a personal connection. Px Cent.
- 39 Corporations/businesses have taken so much away from the employee that there is no loyalty any longer, in either direction. Example, Wisconsin cutting pensions. Entitlement vs. Loss (loyalty and resources) Px Cent.
- 40 I would rather have someone take the initiative and do it wrong than not try. Is this a leadership issue? Px Cent.
- 41 It is hard to get people to come into the utility industry. It takes many years of hard work, with swing shifts, danger and a steep training curve. Instant gratification? Zero. Px Cent.
- 42 Understanding systems is extremely important in healthcare. Example medicine, the heart as part of the body. Px Cent.
- 43 Youth are not using technology to their advantage at work – generally social use WAVE

43	At Mohave Correctional we employ 600. They CANNOT bring cell phones into the facility. Doing so may result in termination. FB and twitter are blocked.	WAVE
44	Use of social media is situational.	WAVE
45	Someone needs to get backbone and say enough! Follow rules or get out	WAVE
46	Policies and procedures at all levels with my company say NO texting, NO FB.	WAVE
47	Are the EMPLOYERS enabling this behavior?	WAVE
48	MTV is a large, global employer that uses technology. Needs are specific to the employer.	WAVE
49	Corporate culture starts at the top. Even corrections is a business – a city of businesses. I have to be able to SELL my culture, to staff and inmates, in order for them to BUY it. BUY IN is important. I've had to learn to respond to questions. Need to take time to create the culture top down.	WAVE
50	Professionalism. Organizational politics is one of the lowest areas of competency. They need to ask "How do things get done in MY organization?" "How do I navigate THIS system?" Need skills for asking questions.	WestMEC
51		
	We've noticed brazen behavior, entitlement, disregard of hierarchy in a tendency to go straight to the top and skip their supervisor.	YUMA
52	Part of our new hire discussion is "Don't skip over your supervisor!"	YUMA
53	It's the Google effect, seeing how it is elsewhere and wanting to create if for one's self. "Can I bring my dog to work?"	YUMA
54		
	We have intergenerational workshops with supervisors or nurses at the hospital, covering how differences in home life, technology have shaped the younger generation differently. Family might be less stable, jobs less stable, or "a better job around the corner."	YUMA
55	We are looking for: people who show up on time, know who the boss is, are serious about safety on the job site, and don't rip off the business.	YUMA
56	As a COMMUNITY we collaborate, doing more with less money, and flexibility is a requirement. Creative ideas need to be acknowledged.	YUMA
57	Team vs. dictatorial leadership – need to recognize value of people we deal with. We are all members of the community in which we live, NOT touch-feely but realistic assessment. This is a part of collaboration.	YUMA
58		
	Styles of administrative management/leadership give mixed signals. In team environments each person is responsible for success.	YUMA
59	Now that times are tight, management has "the hammer" rather than the employee.	YUMA
60	Culture of work – regardless of times, they still need to do be ready to do great work.	YUMA
61	In management, when WE walk the walk, the attitude is better. It's an important effort for us. WE pitch in.	YUMA



## IN PERSON - HUMAN TO HUMAN INTERACTION - CUSTOMER SERVICE

Statement	Group
1 Relationship building*	Combined
2 Respect of self and others** (given and received)	Combined
3 I address dress code first in healthcare. Appearance supports patient trust in their care.	Combined
4 It's not JUST speaking, it's INTERACTING. Complex is good – it's more than.	Combined
5 One on one, one to room, a letter, email – all very different – complex.	Combined
6	
7 I understand small business wanting employees to improve in standards because of the CUSTOMER's judgment of us through that employee. Combined	
8 Communication competency is huge – explanations to customers. 90% of our employees are local and under the age of 26. Example, 24 year old, married with baby, had problem running off mouth. He said the wrong thing to the wrong person. Thought he should be treated special – lost his \$50/hour job. We have a no tolerance policy for this kind of behavior. How do you teach Manners? CTD	
9 In testing/evaluating IT systems, Professionalism. They represent our company and first impression is important. After that, Complex Communication – the ability to receive, digest, process and return communication is essential (our client's are in Defense, from generals to CEOs). CTD	
10 Communication, personal interaction with customer. Walmart's new hires are straight from HS. Training covers a range of skills. Very few new hires ask any kind of question. CTD	
11 Example, clerk in auto parts store talking on the phone while "serving" me. CTD	
12 Example, not answering the phone when talking to a customer. NOT interrupting someone talking on the phone. Customer service needs to be taught. CTD	
13 Example of customer service, a Chandler restaurant provides dark or light napkins to customers depending on the color of their clothing so that the lint from the napkins won't show up. CTD	
14 Need to be able to have a normal conversation. CVIT	
15 Now kids communicate in 140 characters or less. Students can do this. They have no idea how to TALK to a human being on a phone. CVIT	
16 Example, An auto tech was laid off for lack of people skills, even though he was the MOST productive tech. EVIT	
17 I remember when McDonald's first opened. They hired all young men who were smiling and happy. No more. Have we employers lowered our standards? NAVIT	
18 Kids communicate so well via texting and FB but not one on one. ► affects ability to communicate face to face with a customer. ► saying "I like" 30 times ► maybe we should start doing our interviews with US texting. NAVIT	
19 More young people want to use self-serve options, older people want assisted service. Most don't want people following them around the store. NAVIT	
20 We are graded better as a store if sales assistants offer to help find an item outside the store when not available in the store. This is not the younger gen looking for this. Younger clerks like to go online and do this.	
21 I hired a 60 year old hair dresser and trained her to be a bank teller. She is now a senior teller. When I first hired her, my colleagues thought I was crazy. NAVIT	
22 We need them to be thinking about a JOB as part of something larger. Your job is to make sure the customer is happy and the company profits. NAVIT	

- 22 Need to let employees make mistakes or they will be afraid to make a decision. ► Need to do this in education, example, as an employee I gave away \$1000 sofa to manage company mistakes for customer NAVIT
- 23 When dealing with people, need to talk eye ball to eye ball first, then phone NAVIT
- 24 Need to consider that some people do NOT want interactivity. They want the transaction to move quickly, get it done. NAVIT
- 25 Person to person skills – must be able to engage the customer NAVIT
- 26 Communication is critical. NAVIT
- 27 It's on the employer to shoot for EXEMPLARY to get at "good" customer service. NAVIT
- 28 Technology vs. face-to-face, skills must be taught. PCJTED
- 29 Technology and the speed of change – includes face to face. See Microbusiness Advancement Center <http://mac-sa.org/>. PCJTED
- 30 Example of Critical thinking, interacting with customers who have a need Px Cent.
- 31 Need awareness that people are still purchasing IN PERSON. Need to mix skill sets – employability in a technical context. WestMEC
- 32 Basics: speak to people, math, show up on time, dress properly, hygiene – the rest employers want to train. WestMEC
- 33 A Gallup poll showed that employee engagement led to customer engagement which led to profits for the firm. [initiative/self-direction?] WestMEC
- 34 Good customer service skills – regardless of all else – is universally important. YUMA

## IMPLEMENTATION

### Statement

### Group

- |    |   |          |
|----|---|----------|
| 1  | Teachers lacking skills in creating an environment where students are comfortable asking.   | CAVIT    |
| 2  | How do we test for this legitimately?   | CAVIT    |
| 3  | Personal every day PRACTICE required.   | CAVIT    |
| 4  | We must model what we expect others to implement – INDIVIDUALLY.  | CAVIT    |
| 5  | CTE can connect the dots on this and cover it all. APPLIED learning environment.  | CAVIT    |
| 6  | Extern/internships or practicums turn the light on – validate the learning, resulting in pride and initiative.  | CAVIT    |
| 7  | Applied means Hands On.   | CAVIT    |
| 8  | It's magic, real learning happens.  | CAVIT    |
| 9  | CTE Advocacy calls upon a student's desire to work in this manner. Example, touching a robot connects with them personally.   | CAVIT    |
| 10 | We are looking at business/industry skills that we want our students to have, therefore the teachers/staff must have these skills.  | CAVIT    |
| 11 | At CAVIT additional JTED funds came with an expectation from the board: "Program Quality Impact"  | CAVIT    |
| 12 | Quality markers for teacher and program include: emerging, high quality, excellence. These markers are indicated in their classrooms so anyone entering can see.  | CAVIT    |
| 13 | Mentoring is important, a community needs to be involved, more than parents. The mentor is often the one who makes a difference in a life. "You can do anything you want to."   | CAVIT    |
| 14 | We can't orchestrate this at the state level. It's local community.   | CAVIT    |
| 15 | CTSO (Career Tech Student Orgs) 23,000 participants across state. Events focus on career skills. Competitions include TEAM event.   | CAVIT    |
| 16 | We implement ALL of these skills in our classroom, separating HOME & WORK behaviors.  | CAVIT    |
| 17 | Mastering something on paper/computer is NOT the same as actually doing the task.   | CAVIT    |
| 18 | Our goals regarding Employability Skills: Define (what does it look like?) – Measure (scenario development and rubrics) – Manage. Identify what it means to move from NOVICE to EXPERT. Embed the skills in our programs. | CAVIT    |
| 19 | Engagement is important. Bells, whistles and time hours are NOT engagement, rather counter productive.  | CAVIT    |
| 20 | One size does NOT fit all   | Combined |
| 21 | Continuous Learning   | Combined |
| 22 | Skills can be learned – the earlier the better  | Combined |
| 23 | Develop skills through application  | Combined |
| 24 | We don't believe? WE BELIEVE these things can be learned.   | Combined |
| 25 | In H.S. classrooms, I miss seeing modeling of expected appearance and behavior.   | Combined |
| 26 | When and how do young people learn these skills?  | Combined |
| 27 | There's a curriculum in our program, career prep, that teaches many of these skills. EVERYBODY should have this skill base and knowledge. It can and should be taught.  | Combined |
| 28 | Internships are crucial. They help make connections to these skills through EXPERIENCE.   | Combined |
| 29 | Training, mentoring needs to be provided. Example, cannot GUESS how to use equipment.   | Combined |
| 30 | We do a lot of team leader training to help supervisors be good at responding to questions.   | Combined |

- 31 4 years of engineering and math is setting kids up for failure. How would a 4<sup>th</sup> year of math help me? Physics is helpful. "I don't WANT to work it, so I WON'T work it." Combined
- 32 Example, crossing arms and hands. We've not discussed preferences. Are you more comfortable in your left or right hemisphere. Voc Tech helps you learn the CONTEXT. Preferences must be embedded. One size doesn't fit all. Combined
- 33 One of our responsibilities in education is to help students develop skills in arenas where they are not comfortable. Help them look at the challenges and know they can learn. Combined
- 34 What ARE the skills? What do they LOOK like in practice? How do we teach them? How do we measure them? How do we go deeper into training of the skills that are important? Combined
- 35 Where do we practice speaking today? Combined
- 36 Yavapai College had a course on email communication for the mining group. Combined
- 37 The world of work is not a multiple choice test. As employees we want to know that students receiving these certificates can DEMONSTRATE these skills. Combined
- 38 Launch in Life program includes: finances, interviewing techniques, resume writing, knowing individual skill sets, understanding connection between education and quality of life. 4H is taking the curriculum to U of A for peer review in order to prepare for a statewide launch. CTD
- 39 Needs to be in biz/industry terms as well as understandable by parent and student. CTD
- 40 Norvell – Innovative school for kids with learning disabilities (autism, dyslexia). Curriculum is based on mastery, not grade. how do you teach manners? Give them appropriate homework (home and school), example, complementing the teacher in another classroom, offering to do dishes (affective learning). CTD
- 41 These standards will set expectations for learning in our schools. We hope you raise the bar and raise expectations. It starts early on – not optional. Don't make exceptions. They can do it if we expect them to. CTD
- 42 School can't be the answer for everything. They're dealing with discipline problems. CVIT
- 43 How do we apply all this in the classroom? CVIT
- 44 Worked with DECCA to design logo for trail system. We teach them to use social media for business CVIT
- 45 We have the 2<sup>nd</sup> most followed DECCA facebook page in the country. CVIT
- 46 Schools can't even access this. We need to work this out. Need workshops for teachers about this – Basic, Intermediate, Advanced. CVIT
- 47 We had a grant for teaching/learning CONTENT with discrete mathematical skills. Very deep thinking. Meant to get at that the 4<sup>th</sup> year of math. CVIT
- 48 Do the kids see a purpose in this? Are we merging imagination with the skills of mathematics? CVIT
- 49 Math needs to be relevant. We are giving both CTE and math credit through the community college. CVIT
- 50 Academic and CTE instructors need to integrate. Not just CTE integrating academics. CVIT
- 51 Broad than this. Needs to be integrated, project-based learning. CVIT
- 52 We can do all of this, but if we don't engage the students, we've lost the game. Need to begin EARLIER. We want kids to take imitative and ask questions. Who is school is encouraging this? CVIT
- 53 How will we define these skills once we've finished this conversation? Then it's a new conversation about measuring and managing them. CVIT
- 54 How many kids are going to need a 4<sup>th</sup> year of math to survive? 82% of jobs that become available any day do not require a college education. CVIT
- 55 Many skills can be learned in an apprenticeship program, and we need to return to that mindset. CVIT

56	When I was in HS, kids left HS to get training @ a vocational school.	CVIT
57	Teachers are not addressing them in CTE because we don't have standards.	EVIT
58	WES are essential to industry. Needs to be across the board (in schools), not just CTE, but elementary through high school.	EVIT
59	Vocational Ed not required to graduate from high school.	EVIT
60	We need to get behind the schools and consider the family situations.	EVIT
61	These skills need to be taught, beginning in the home.	EVIT
62	Need to remember that we DO graduate a lot of fine young people. As concerned people, we just want the [system] to be better. "I don't know what you did, but you kicked him where I couldn't." (parent)	EVIT
63	Issue teaching students BASIC tech skills because they want to do the "fun" stuff.	EVIT
64	Learned these things myself through a COE program (Cooperative Education, CTE).	EVIT
65	We've seen a huge push for college, missing the career connection. They NEED to have a career – it's not about academic genius. Knowledge needs to connect to problem solving, teaming. What are the ethics? Connections need to be made early on.	EVIT
66	It starts at home, if not at home at school – sports, student organizations.	EVIT
67	DECCA – student knowledge/skill tested in competitions nationally.	EVIT
68	learn to PRACTICE, research, study – Capstone Experiences. "DECCA is my sport."	EVIT
69	Student benefits: trophies, resume builders, certificates (carrots), scholarships...	EVIT
70	Amount of time student and teacher spend together in Student Professional Orgs creates a relationship that leads to high level development of these skills.	EVIT
71	Why are we not incorporating these skills into our academic courses? How can we work with industry to effect this?	EVIT
72	Is there a balance between Employee and Employer skills?	EVIT
73	Take a ½ day and do a practice job, interview with students and teach interview skills (process of Skills USA)	EVIT
74	Our life skills class taught communicating on a topic. Kids from single parent/blended homes often mediating for their families. We provided this training that was not necessarily taught at home.	NAVIT
75	Communication skills, when not engrained early enough, are difficult to transfer into other areas. Needs to be part of them. INTEGRATED.	NAVIT
76	In student organizations [CTSOs] we use role playing at a high level within a competitive environment. Each organization has job interview events. We implement all of these [skills] in our programs.	NAVIT
77	Academic decathlon is the same. Behaviors are scored as well as academics.	NAVIT
78	Example, Hewlett Packard internships, the "real gig" made a bigger impression, different than competitions. Kids take "for real" experiences more seriously.	NAVIT
79	NPC has a great nursing program. It's how they present learning in the classroom: a lot of clinical, hospitals, TLC, hands on and cooperation between education and creates the above. ► also high expectations from NPC of the students – nursing, paramedic and CAN. ► the nursing program has fewer resources than many but a dedicated staff and leadership that creates an environment for excellence.	NAVIT
80	This [teaching skills] needs to begin in middle and elementary – at least by 6 <sup>th</sup> – technical skills go on this base.	NAVIT
81	Bigger scale – these skills are not tested. Unless they are tested, they will not appear. We have reached critical mass. We need to change the paradigm – get them ready. Every 5 <sup>th</sup> and 6 <sup>th</sup> grade teacher in the state needs this list.	NAVIT
82	My teachers [CTSO] asked me NOT to teach employability skills because it has nothing to do with the technical area.	NAVIT
83	We ran a store to teach these skills to students – part of the school day.	NAVIT

84	We employers should help with this.	NAVIT
85	I was not good at [these skills] myself when I first started. How do we teach and measure this?	NAVIT
86	If not tested, will not be taught – that’s scary (YES!!!)	NAVIT
87	Mentoring is needed	PCJTED
88	Give youth credit for their capacity to learn. They’ll take the lead by what they SEE.	PCJTED
89	CTE Instructors – great with teaching technical skills. How are we teaching THESE skills? This is highly involved.	PCJTED
90	“If we can’t define it, we can’t measure it. If we can’t measure it, we can’t manage it.” School is off from what we need to accomplish this task. These are HUMAN skills that require certain conditions in learning.	PCJTED
91	The law mandates assessment of technical skills. We NEED students to be able to perform these skills. Got to use their time and resources to go deep and reach these skills.	PCJTED
92	Can assess performance across space and time using experts and technology. Malcolm Gladwell <i>The Outliers</i> asks “How do you become expert at anything?” Example, Beatles rehearsing for years, hours a day, to perfect their skill.	PCJTED
93	Need to teach parents and teachers sometimes. Who is equipped to help the child be successful? In spite of socio-economic differences.	PCJTED
94	What is the employer’s responsibility?	PCJTED
95	How will this be communicated to students? This is a class.	PCJTED
96	My response to a student’s question “What did it take you to be successful?” resulted in many of these topics.	PCJTED
97	Should not simplify how complicated this may be to incorporate into CTE.	PCJTED
98	Practice these skills while engaged in work as a team. Example, Habitat for Humanity.	PCJTED
99	Should be called Critical Workplace Employability & Retention Skills **need to be part of every single course	PCJTED
100	List of 15 things you can do to lose your job. #11 is “Do your job”	PCJTED
101	Community colleges are doing a good job bringing in biz/industry. Maybe this needs to happen more. What we thought was challenging is not the same with youth. They need a different challenge.	Px Cent.
102	Basic skills for entry level jobs are missing. This is generational and economic. We’ve had to look to other countries to supplement our workforce. It takes a year to find a mining engineer.	Px Cent.
103	NSF grant thro’ MCCC. Teachers and students are being trained TOGETHER, creating collaboration between students and teachers (beyond apprehension to productivity).	Px Cent.
104	Gladwell’s <i>Outliers</i> . 40% of teachers have less than 3 years experience in the classroom. Creativity and Innovation are required to make the transitions needed to day. How do we get the new gen teacher able to make the transition? Massive cultural change about how we prep people for workforce. We need to help the adults/teachers understand what’s happening in biz/industry. They need an EXPERIENCE of it.	Px Cent.
105	Systems Thinking “Wisdom” ties into Complex Communication – timing, guiding, mentoring, looking to the future. Example, hospitals – how will reform affect them? affect career development in nursing? Majority of nurses presently work in hospitals but will need to transition to outpatient care and community education. “Complex Care” will require collaboration with other services without “silos.” how do we develop this wisdom?	Px Cent.
106	MCC curriculum was 2 generations behind (from adjunct perspective).	Px Cent.
107	Technology in school is behind.	Px Cent.
108	Rural mining communities – many miners do not want to learn science – they want a TRADE (welding, electrical). Trades people pull the resources out of the ground that are needed to CREATE an IPAD.	Px Cent.
109	Long-term healthcare field one of the fastest growing in the state. The message to our youth, “Don’t go into that” is contrary.	Px Cent.

- 110 Healthcare reform is going to shift the needs for training and employment from intervention to prevention. A nutritionist needs to learn the system, including food prep and pots and pans. They need experiential learning. Px Cent.
- 111 People don't know how to lead. People need to be taught mentoring – accountability, expectation setting. This falls on the employer first. Px Cent.
- 112 In education there's an overemphasis on academics to the exclusion of LIFE SKILLS, including personal effectiveness, leadership, goal setting, communication. Life Skills are the connection between knowing and applying. Px Cent.
- 113 Would like to see life skills being taught through out the education experience. Need work-based learning – practical and relevant. Px Cent.
- 114 AZ Counts conversation: expecting kids to understand year 2 Algebra exponential functions but not showing the application to credit cards and personal finance. WAVE
- 115 Don't see anything on here that we WOULDNT embrace. As an educator, we tell our kids what to expect. "You are EXPECTED to ask questions." Sometimes our language gets above them. "It will show me you are a good employee if you ask questions." WAVE
- 116 Employer needs to take charge. The school system needs set requirements. WAVE
- 117 Legal system creates havoc with schools setting certain policies – not simple. WAVE
- 118 Must be looked at from an industry standard. Each skill is going to need to be specific to an industry and requires assessment. WAVE
- 119 Math is a life skill yet teachers in elementary school don't necessarily have this. WAVE
- 120 We need to stoke up pride in the skills (all types of jobs) that we are teaching. WestMEC
- 121 Are these not Common Core Standards? The classroom should not just be about academic skills. We would be better off if these were part of the learning in EVERY classroom, not just CTE. WestMEC
- 122 This concerns Career-Readiness. WestMEC
- 123 Arizona loses 1 out of 3 kids before H.S., so should this be infused into the system earlier? Look at the middle school gap. The present day dichotomy between CTE and academics needs to be dealt with. We need to ask, what do we need to do to provide EVERY child with a good education? This seems to make sense to everyone now in a time of economic adversity – why not all the time? WestMEC
- 124 If we can document and measure these skills, then employers will flock to AZ, NOT just for CTE students. WestMEC
- 125 Example, a school that identified 5 of these skills and made them 20% of grade for every student – such as communication, teamwork, quality of work... WestMEC
- 126 How do these skills get applied? Problem – People hired without skills and people who don't care to get them. Need – Employers who pay more attention to skills at the time of hire. WestMEC
- 127 Employer education. Managers need to provide training over time as well. WestMEC
- 128 These skills should set the bar in workplace entry. Teachers need to collaborate and develop THEIR work together – model the expectation. WestMEC
- 129 What is the new bar? This process is determining this for Arizona now. Will these skills endure over time? Is it a TOOL (social networking) or a SKILL? WestMEC
- 130 Skills USA includes many of these skills in their PD program, ex. practice interviews. WestMEC
- 131 At this college we've change the curriculum in the past 2 years to APPLICATION. We use real world problems, examples: virtual football team, YUMA story problems (computational thinking, problem solving, critical thinking). We need to get through elitism to change how we approach quantitative skills.

- 132 There's literature on problems with females with math and fear of math in general. We need to start STEM at ground level. Math elitism needs to be dispelled. YUMA
- 133 Big emphasis in school readiness (early childhood conference) is STEM. Teachers in early education don't know math vocabulary. The focus has been rote recognition for letters and numbers. "Kids can't think if we can't think well enough to teach them." YUMA
- 134 We want outcomes but need to have people trained to guide us to those outcomes. YUMA
- 135 RELEVANCY is still missing in the classroom. Theory needs to be married to experience. YUMA
- 136 My experience – drilled repetitively – but when did we USE the stuff? YUMA
- 137 [Maggie re: MacDuff] He is moving from repetition to utilizing conceptual relationships to learn math. We need to be looking at CTE as a vehicle for applied math. YUMA
- 138 "Higher math = life and death decisions in shop." YUMA



**OTHER**

**Group**

Other

<b>Statement</b>	<b>Group</b>
1 Parenting is at issue.	CAVIT
2 The idea of managing WASTE of any kind is essential – resource management.	CAVIT
3 “Sustainability” is a way of thinking.	CAVIT
4 What are some CORE concepts that feed others?	CAVIT
5 Do entry level employees know HOW to ask?	CAVIT
6 Statistics show that 83% of employees are looking for a new job.	CAVIT
7 “It’s not the grass. Just water your OWN grass.”	CAVIT
8 Is there an element of behavioral interviewing in these programs?	CAVIT
9 “Measure twice, cut once” adage is unknown.	CAVIT
10 Matthew Crawford’s book <i>Shop Class as Soulcraft</i>	CAVIT
11 Even though it’s difficult, it’s essential that we move forward.	CAVIT
12 Hiring: May present well but does not possess the skills (good “camo”)	CAVIT
13 Hard skills: Basic computer skills, technical skills for the job, foundational skills (applied math, reading, locating?)	Combined
14 Social issues	Combined
15 Accuracy	Combined
16 Workplace readiness	Combined
17 Communication: old style – reading, writing, speaking, listening	Combined
18 Thrilled that you are doing this. For years I have heard employers saying what they needed – and only now feel that education is listening and may get the job done.	Combined
19 This setting, out of the silo, is great. I’d go into a high school and share what I know. Let me help out.	Combined
20 Have you looked at the SCANS study? [Yes, working with EDC and did extensive research]	CTD
21 Much of what is in SCANS is still basic today.	CTD
22 We need Initiative, Creative Thinkers, Question Askers. They’re used to T9ing, having words completed for them. At our company, we ANTICIPATE them moving between jobs – different than what we EXPECT to see in older gens. Different considerations for different generations. One of our problems, kids are too young to rent a car! (under 25)	CTD
23 What is the cost/hire?	CTD
24 In Defense, \$6000	CTD
25 In Healthcare we use recruiters and the fee is \$35K or 20-30% of compensation for a year.	CTD
26 In Engineering we paid 40%. These are important considerations for profitability.	CTD
27 Effect on bottom line. Example, giving away subs on the job as community service.	CVIT
28 We are dealing with the loss of millions of \$\$ at County.	CVIT
29 Kids have smart phones.	CVIT
30 This is fine, but only 11 kids were able to get a job...?!	CVIT
31 We’ve more than doubled our population in Pinal County in 10 years. Infrastructure problems because of it. Have ethics issues ourselves.	CVIT
32 5 things a company looks for to relocate: workforce, available land, infrastructure, tax structure, market.	CVIT
33 Highly educated folks don’t way to work in the mines or plow land for cotton. 60% in Pinal County live here and work elsewhere.	CVIT

34	San Tan has 81,000 people and is unincorporated, a bedroom community to Phoenix. Johnson Utilities is now managing sewer and water.	CVIT
35	Biggest graduation for many is 8 <sup>th</sup> grade.	CVIT
36	In Gila our current graduation rate is under 70% with many 5 <sup>th</sup> year graduates.	CVIT
37	AZ is known for hospitality, golf courses, hospitals, mining – don't need a masters.	CVIT
38	When I graduated in HS from CTE, we received the certificate, transcript, awards, leadership achievements and a leather binder form the state – evidence of what was learned on program completion.	CVIT
39	Is it ethics or just STANDARDS?	EVIT
40	Technical Skills Assessments are mandated by Federal law.	EVIT
41	Mesa is one of the original workforce education locations in the US. "The seed for change in education could come out of Mesa, AZ." EVIT started in George Smith's school, Mesa Central as a vocational education program.	EVIT
42	Want to share surveys with our advisory committees.	EVIT
43	Technology is a TOOL.	EVIT
44	If you need to say something negative, say it – something positive? WRITE IT.	EVIT
45	Work ethic is not addressed on the AIMS test.	EVIT
46	We don't know how a student will react until tested.	EVIT
47	"Is this generational?" ► "Well, I did it 40 years ago..." (Laughter)	NAVIT
48	Teaching skills – "Yes, I know how to lay a block." ► Well, 4 blocks an hour is NOT proficiency!	NAVIT
49	Banking – communication and technical	NAVIT
50	Asked my accountant what would be an important skill – 10 key blind.	NAVIT
51	[Some] students in our school are more directed toward repetitive (craftsman) type jobs. Others not so much.	NAVIT
52	Some people don't want to learn new things or advance – same issue.	NAVIT
53	Example, school is being used as a replacement for an absence of skills. Can't find a job? Go back to school!	NAVIT
54	These skills are more important than technical skills. (YES!!!!!!!!!!)	NAVIT
55	Would like a heart surgeon to be at least 90% technically skilled!	NAVIT
56	Nationwide, the average age of a miner is 53 in all related jobs, jobs not transferrable overseas.	NAVIT
57	List of 15 things you can do to lose your job. #11 is "Do your job"	NAVIT
58	WORK is culturally important in the US, perhaps more than other countries.	NAVIT
59	One idea begets another.	NAVIT
60	Need to figure out what it is that students KNOW.	NAVIT
61	What is an expert? Can you demonstrate your expertise?	NAVIT
62	Lifelong Learning – kids are already doing this.	NAVIT
63	People don't know how to lead. People need to be taught mentoring – accountability, expectation setting. This falls on the employer first.	Px Cent.
64	In education there's an overemphasis on academics to the exclusion of LIFE SKILLS, including personal effectiveness, leadership, goal setting, communication. <u>Life Skills are the connection between knowing and applying.</u>	Px Cent.
65	Would like to see life skills being taught throughout the education experience. Need work-based learning – practical and relevant.	Px Cent.

- 66 Example, with refugee placement we have a time-frame challenge. The economy has forced us to change how we do things overnight. We have to make our clients self-sufficient in 4 months (after 30 years in a refugee camp). 70% do not speak English. Cultural competency under stressful conditions (Interviewing, language, how one expresses oneself – even talking about oneself may be difficult because of cultural background). Complex communication and decision making, problem solving is needed. Px Cent.
- 67 We need them to understand the foundational starting place of a position and be able to go from there. Px Cent.
- 68 Honeywell was one of the biggest employers many years ago. They shipped jobs overseas. Young people saw what happened to their parents and said, “Why should I come to your industry?” After 911, my company went from 35 to 12 employees. People are avoiding machining because of the ups and downs. Px Cent.
- 69 We are moving to a wellness model. It’s the responsible thing to do. Example, advisory board – are we producing a product that works for the future market? Our curriculum is hinged and changed based on this. Community service (CS) is essential in our learning process (deals with entitlement). CS includes tutoring, cleaning/scrubbing, massage – based on individual strengths. Example, good communicators coach. Giving back through CS has value for student after graduation from their feedback to us. Px Cent.
- 70 Freeport-McMoran has comprehensive volunteer service globally (sea turtles in Indonesia, Red Cross, homeless shelters...) Px Cent.
- 71 Need to be careful not to single out people WAVE
- 72 Skills are not “silo-ed.” They relate to each other, ex. collaborative problem solving. There ARE basic skills we should expect, a needed foundation. WestMEC
- 73 People get fired for NOT having these skills, not so much the technical skills. Great list in setting the bar for entry level hires – the co. will grow more quickly. WestMEC
- 74 We don’t have a challenge with entry level but simply finding skilled labor and retaining it. [Is this a changing industry requiring different sets of skills?] Yes, we spent 5 months looking for an online content manager. YUMA
- 75 In publicly funded programs, people who are taking on the work of others as well as themselves – there is a lot of burnout – what’s the answer? YUMA
- 76 CTE people more persistent and goal oriented. YUMA
- 77 Appreciate the opportunity to share our thoughts with you. Doesn’t happen often – especially with such a diverse industry group. YUMA
- 78 Carolyn asked – how do we describe these skills we are looking at? Responses: Job Readiness, Basic Skills, High Performance Skills YUMA

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