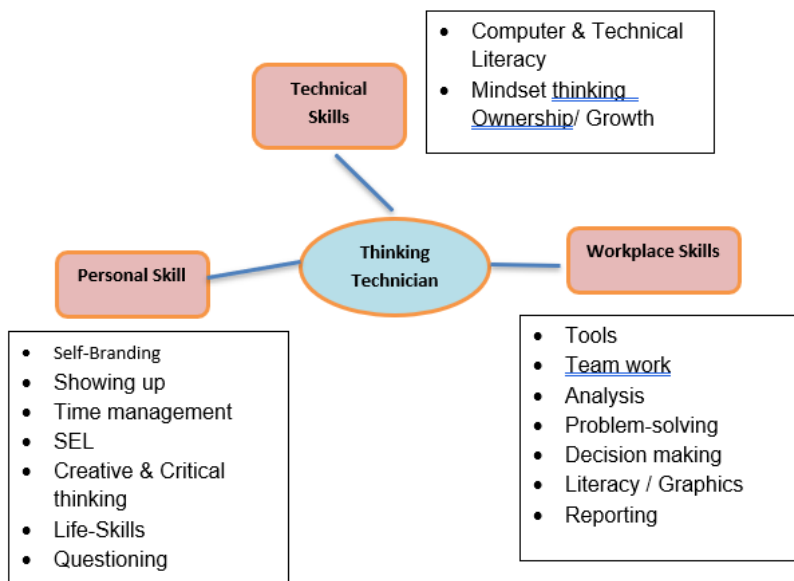




Foundational learning Handbook

Providing the underlining Foundational Skills to succeed in Computer Science, Biology Science, Manufacturing and other Industrial Careers.



Uniqueness:

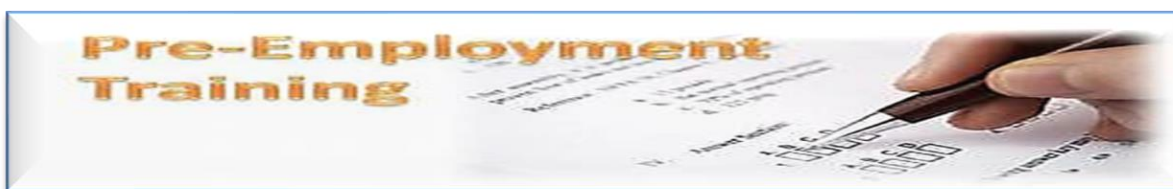
- Team culture
- Ownership mindset
- Engineering mindset
- Growth mindset
- Life-skills
- Holistic approach
- Process thinking
- Problem solving
- AI Understanding
- Showing-Up

Bill Wolfson

Project Academy Inc.

9/13/2021

Foundational Learning Handbook



1.0	Introduction	Page 2
1.1	Background	
1.2	Business needs	
1.3	About Project Academy	
1.4	Our Beliefs (tenants)	Page 3
1.5	Mission statement/ Outcomes	
1.6	Community benefits	
1.7	Holistic approach	
2.0	Responsibilities	Page 4
2.1	Yours (attendance, feedback)	Page 5
2.2	Project Academy	Page 6
2.3	Follow-on services	Page 8
2.4	Student engagement	
3.0	Approach to learning	Page 10
3.1	Elements	
3.2	Rubric	
3.3	Life-skills	Page 14
3.4	Tools	
3.5	Uniqueness	
3.6	The Agenda... Mike Hammer	
3.7	Math & Writing	
3.8	Training videos	
4.0	Schedule ... 16-week course	Page 18
4.1	Course details	
4.1.1	Team operation... working together	
4.1.2	Problem solving... making things better	
4.2	Weekly program	Page 24
5.0	Example of a day's training	Page 28
6.0	Business & Community	Page 32
6.1	Business	
6.2	Community	
6.3	Reference documents:	Page 33



Foundational Learning Handbook

1.1 Background:

Our program is designed to give young adults, The life skills and attitude training to become a successful part of the community. The program is designed to be the base foundation to learning technical skills for organization success.

We look for young adults that have:

- a positive Attitude:
- a good Aptitudes **for doing certain** kinds of things easily and quickly.

Our approach is to train young adults to be productive and great employees with skills that make them valuable in most service or industrial jobs.

These new employees have the life-skills that companies need to be successful in addition to the technical skills to do the job. The program is over a 16-week period and provides a holistic environment to the student.

1.2 Business Needs:

Businesses are reporting that a major need for their success are employees with life skills such as interpersonal skills, communication skills, teamwork, critical thinking, decision making and problem solving. Our program intends to work with local community & businesses to ensure that we provide these skills in addition to a positive attitude and seeing problems as opportunities.

1.3 About us:

Project Academy is a 501 (C)3 non-profit corp. whose purpose is to serve the community by successfully preparing entry level people & high school students to be productive in the work environment, education & society organizations. Our students see themselves as owners of their own business with a positive attitude, caring for the customers with continuous improvement and looking to learn and get better at what they do.

1.4 Our beliefs(tenants).

1. People will change careers equally as jobs in their life-time.
2. Life-skills are transferable between careers/jobs
3. Think of yourself as in your own business. ... Your boss is your customer. Build your brand.



Foundational Learning Handbook

4. Problems are opportunities ... “the bigger the problem the bigger the opportunity”. Vinod Khosla
5. Use the engineering mind-set to focus on all the activities surrounding your work.
6. Most young adults have the capability and desire to do the right thing but need the correct environment to dream

1.5 Our Mission Statement: To have our students see the benefits of using life-skills and a team learning culture that successful connects with business and society organizations. For our employees, we will create a positive environment for their growth. Our purpose is to make our community a better place for us being there.

“I didn’t value experience as much as character, creativity, and common sense, which I suppose was related to my having started Bridgewater two years out of school myself, and things out is more important than having specific knowledge of how to do something” ... Dalio, Ray. Principles: Life and Work my belief that having an ability to figure

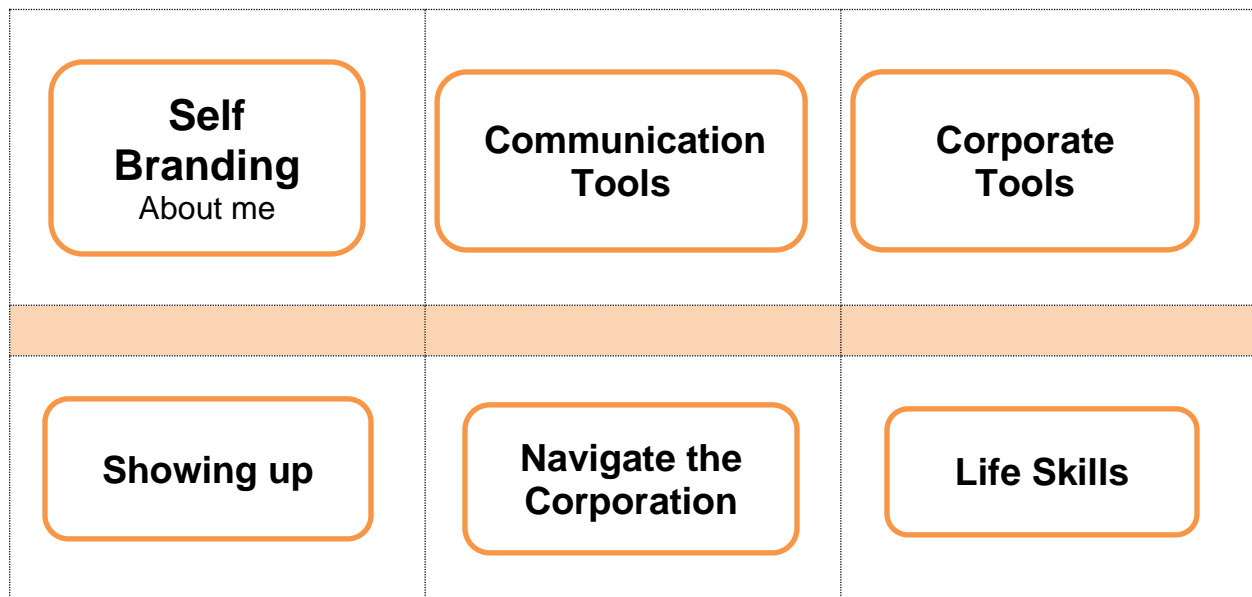
Student take away (Outcomes):

- Acquire self-awareness and apply self-management skills to achieve personal well-being and effectiveness
- Act with integrity and make responsible decisions that uphold moral principles
- Acquire social awareness and apply interpersonal skills to build and maintain positive relationships based on mutual respect
- Be resilient and have the ability to turn challenges into opportunities
- Be an outstanding employee for the company and grow in opportunities



Foundational Learning Handbook

Foundational Skills



Want to hot link this to show details when you hover over box

Tool	Description
Overview Document	Key Components , such as Teamwork, Attitude, Communications, Social skills, Critical thinking, Organizing & Planning, Professionalism
Info-Mapping	Makes the document easier to read with labels on the left side of the document and logical break up of information in the document.
Mind-Mapping	A mind map is a diagram used to visually organize information. A mind map is hierarchical and shows relationships among pieces of the whole. [1] It is often created around a single concept, drawn as an image in the center of a blank page, to



Foundational Learning Handbook

	which associated representations of ideas such as images, words and parts of words are added. Major ideas are connected directly to the central concept, and other ideas branch out from those
Process Sheets	<u>Process planning</u> is a preparatory step before manufacturing, which determines the sequence of operations or processes needed to produce a part or an assembly. ... A route sheet is a document which lists the exact sequence of operations needed to complete the job.
Project Management	<u>Project management</u> is the discipline of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria at the specified time. Wikipedia
Flow Map	<u>A flowchart</u> is a type of diagram that represents a workflow or process. A flowchart can also be defined as a diagrammatic representation of an algorithm, a step-by-step approach to solving a task. The flowchart shows the steps as boxes of various kinds, and their order by connecting the boxes with arrows. <u>Wikipedia</u>
<u>Gantt chart</u>	<u>A Gantt chart</u> is a project management tool assisting in the planning and scheduling of projects of all sizes, although they are particularly useful for simplifying complex projects.
Quality Processing	<u>Customer-Driven Quality</u> Deployment" is a methodology that provides organizations a structured process and tools to improve. Each element below helps make the improvements possible. The whole organization, especially its leadership, must articulate and believe in achieving both break thru and continuous improvements
Balanced Scorecard	<u>The Balanced Score card</u> breaks the measurement into 4 buckets that are at the core of the business; Finances,



Foundational Learning Handbook

	Learning & Growth, Internal processes and the Customer.
Closed-loop processing	<u>A closed loop control system</u> is a set of mechanical or electronic devices that automatically regulates a process variable to a desired state or set point without human interaction. Closed loop control systems contrast with open loop control systems , which require manual input.
IOT-Internet-of-things	<u>The Internet of Things (IoT)</u> refers to a system of interrelated, internet-connected objects that are able to collect and transfer data over a wireless network without human intervention. The personal or business possibilities are endless.
6-Sigma	<u>Motorola</u> 'S method of managing the number of errors allowed in a quality process
Math-graphing	Learning to read a graph and tables. Provide the basic learning for analytics evaluation
Material-Flow JIT	The <u>just-in-time (JIT) inventory system</u> is a management strategy that aligns raw-material orders from suppliers directly with production schedules. Companies employ this inventory strategy to increase efficiency and decrease waste by receiving goods only as they need them for the production process, which reduces inventory costs. This method requires producers to forecast demand accurately.
Learning Process	<u>Ownership of your learning</u> Learning promotes starting with a question rather than looking for answers. When learning about a new subject as a team, we ask questions around Looking for info about the subject. <u>Additional focus using questions</u>
Personal Skills	Trust, Respect, Independence, Collaboration, Kindness, Listening, Empathy,



Foundational Learning Handbook

1.6 Benefits of Pre-Employment Training to the community:

Building a community and culture of a learning team: Learn about and how to develop a learning culture that is like a sports team. How to handle disagreements and work together to solve a problem.

Area	Benefits
Society	Character traits, Problem solving, Design thinking, Soft-skills, Social & Emotions learning (SEL)
Citizenship	Thinking skills (creative and critical thinking, questioning, reflection), Values, Character development
Work	Process methods, Collaboration, Innovative thinking, Financial understanding
Lifelong learners	Excitement in learning, Risk taking, Feedback, Values

2.0 Responsibilities of the student

This is your handbook:

“Faber Est Suae Quisque Fortunae”

“Everyone is the maker of their destiny” 4th street school, Sydney, Australia

Your initial responsibility:

It is important for you to understand that you will build your own knowledge by using questions of why, how, what, when, & where

You will learn to think using creative questions as well as critical thinking question that will support you in your growth in a career or as well college. You will see that you need to become a lifelong learner to survive.

Commitment to each other:

In order to be successful, the organization; Project Academy, and the student must agree to following the training plan, time contracts and commitments of the plan, showing up and being prepared are critical for success both in this training as well as the work environment. Project academy will support the students outside needs of services such as transportation, legal, housing & food. These requirements will be learned in the beginning interview process. Project Academy also commitments to



Foundational Learning Handbook

provide on-going support after the student finds employment. High standards and expectations will be the norm for both parties. The students will commit to viewing this program with a long-term attitude and Grit to get it completed successfully.

2.1 Attendance:

Commitment for attendance is critical for success in this program. It is important to not missing classes during the 16 weeks. This is a skill that is very important in the work environment. Project Academy and your new employer needs to be able to count on your being there. ***"80 percent of success is just showing up" —Woody Allen***

Weekly feedback sessions:

Each week, the teams will discuss the past weeks learning and write down what went right or wrong. The teams will share their perspective with other teams and discuss their finding. Feedback will be shared with Project Academy to improve the program. The results shall be visually posted each week.

2.2 Project Academy's responsibility/culture:

A holistic approach will be used where students' strengths and needs are assessed; a learning environment using project based learning is established for learning college and career readiness skills (CCR) and finally a community structure that is available for on-going learning and support.

Project Academy will foster a working environment (Culture) that treats individuals as partners. It will establish a community of people who will work together for the common good of the team. Classroom atmosphere will balance trust, risk-taking, originality and respect. It will be an innovation-friendly environment that embraces fast-cycle sharing, supports risk taking, and celebrates learning from failure... establishing a protective environment. The approach of continuous improvement will be practiced throughout the program.

Project Academy's culture statement:

Key Word:	Description:
Expectations	We will have high expectations to achieve the best results for things we strive for. Our outlook will be to always make things better than what we found.



Foundational Learning Handbook

Key Word:	Description:
Trying something different	We should be willing to take risk in doing our projects and activities. We are looking for amazing things to be accomplished by all of us.
Believe in people	Each of us are unique in what we can do and accomplish. We look for the good versus the bad in our make-up. We should strive to become better in our outlook.
Community	Our organization does not exist alone but is part of a community of others. We should strive to continuously be looking to make it better and be an active member.
Values:	Caring, Empathy, Striving for the best. Loving kindness, Trust, Respect, Curiosity, Thinking skills (creativity, critical, questions, reflection), Responsibility. No excuses
Language:	We should communicate with our fellow team member to achieve results that make them look better and have a positive outlook towards them. Our body language is a smiling face that looks at you in a positive way. We greet each other when we meet. and are polite and not aggressive.
Rituals:	We should take the time to celebrate our actions and communicate what we are planning or achieved. We use visual measurement to communicate and keep each of us posted on our schedule
Overall symbol:	"Faber Est Suae Quisque Fortunae" <i>Everyone is the maker of their destiny</i>
Our vision, goals, mission and purpose	Our organization documents are posted, clearly reviewed and discussed. We shall include where necessary, time frames, measurements and expected outcomes to make sure these items are real.
Mindset thinking:	Ownership mindset ... <i>think like an owner</i> Cultural engineering mindset ... <i>manage tasks around a project</i> Growth mindset ... <i>The brain is like a muscle use it or lose it</i> Team mindset: ... <i>work together like a winning learning team.</i>



Foundational Learning Handbook

2.3 Following on services after the training:

Project Academy will provide the students with a monthly evening meeting to provide the following:

- Listening session to understand and provide feedback on student comments.
- Provide support for building their marketing brand.
- Will create a web blog to provide to students for communications.
- Will create following on classes for student supported needs.

2.4 Student Engagement: Have a discuss about the following.

Why do you think it's important to learn life-skills? What key words would they use to describe them? Have you use them in a sports team?

Ask the students:

- What class they had that made them feel good about learning?
- What was it about it that did it for them?
- If they have no answer, what teacher did they have that did not help them and why?
- Why do they think it is important for them to be good learners?
- Identify your highest hopes and deepest fears in life?

Recognize that you own your learning and are responsible for its success

Think of yourself as in your own business of learning, what are you going to do to be successful?

“Students need to change their disposition toward school away from being directed by someone else to an attitude of working for your-self—agency, self-discipline, initiative and risk-taking are all important on the job.”

Students should use a to-do list, develop a personal learning plan and create a portfolio of their best work

They learn to self-manage their time, reflect on how things are going again the plan and how-to check-in when they know they need support.

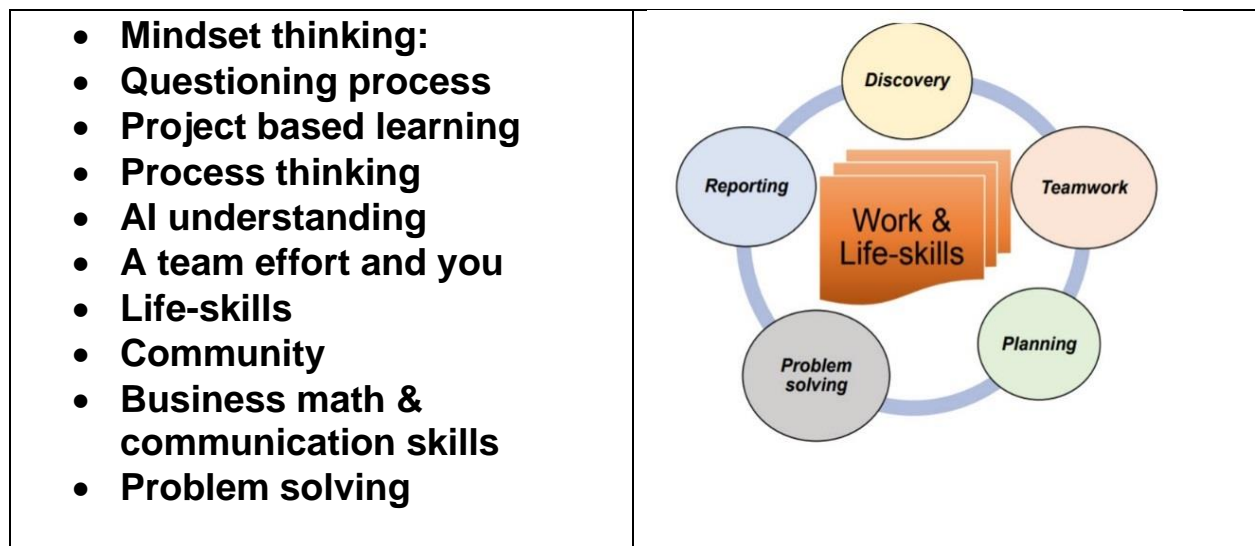
We are creating a new kind of employee... mindset thinking



Foundational Learning Handbook

- Customer focus & process design
- End to end design
- Inter-personal skills/ team player/ problem solver
- Able to handle constructive criticism
- Focus on hard work and results
- Desire to learn and excel
- Teamwork and thinking outside the box
- Good communications and non-verbal skills
- Eager to work out issues
- The bigger the problem the bigger the opportunity

3.0 Approach to learning:



3.1 Elements

3.1.1 Mindset thinking

Students are shown how to be an owner of their own business; what's involved with their customers, suppliers and staff. Thinking like an owner allows you to interface and understand your boss and constantly improving your skills.

Owners mindset thinking:

Students are shown how to be an owner of their own business; what's involved with their customers, suppliers and staff. Thinking like an owner allows you to



Foundational Learning Handbook

	interface and understand your boss and constantly improving your skills.
<u>Engineering mindset thinking</u>	Activities around the process that cover all the details to make it successful. Its assuring that all the team are aware of items, deliverables are met, problems solved, and the customer is informed.
Growth mindset	Brain Plasticity... The brain is like a muscle ... Use it or lose it.
https://youtu.be/8VN8jAzw_MA ownership mindset	
https://www.google.com/search?q=ownershipatwork.com&nfpr=1&sa=X&ved=0ahUKEwid977uyp7hAhWDdd8KHc-wBN8QvgUILCgB&biw=2316&bih=575 ownership questions	

3.1.2 Questioning Learning The students have to own the process. It's not the teacher asking the question.

Pick a text, picture or video to have the students look/read at about the subject we want them to learn. After they complete to task, ask them the following:

- What question do you want to ask about this Text, Video, Picture?
- What excited you, or made you sad about what we discussed? **Involve the group ...**Do they agree or have other questions or thoughts?
- What question comes to mind as you consider this painting/text?
- What are the different levels of questions like the [Bloom Taxonomy?](#)

3.1.3 Project based learning... *Self-direct learning*

- Getting to know each other
- Team creation ... ***learning & building a culture***
- Picking a problem to work on
- Problem solving
- Public reporting



Foundational Learning Handbook

3.1.4 Process thinking... A series of actions or steps taken in order to achieve a particular end.

The right kind of people will be focused not on the boss but on the customer; not on individual performance but on team performance; not on the task but on the outcome. Process understanding is a key factor in achieving success.

3.1.5 AI Understanding: Most companies will be experimenting with the introduction and use of AI within its corporate structure. It will take all employees to be part of the successful implementation. From a recent HBR article 6/2019, employees must be verse in the following skills:

1. Interdisciplinary learning and working
2. Self-motivation
3. Data usage
4. Creative ownership

3.1.6 Team approach: Teamwork is a critical skill that people in companies need to be successful. The employees must be well versed in the following skill sets: working with others, helping others, focusing on results, being hardworking, working for the greater good, desiring to learn and excel, eager to work out issues, able to handle constructive criticism, to be good listeners and communicators, communicators, a willingness to be an “unsung hero, ambitious but not to the detriment of others, and assertive but not aggressive. How’s that for the dream employee? Aptitude is more about the ability to learn and tends to differ among organizations. A financially focused job requires an aptitude for understanding math, accounting, financial statements, and financial relationships, while a utility or science-based position requires relevant technical skills. But aptitude also includes an ability to understand what others in the organization do. An employee might not need to be able to parse a financial statement, but she has to understand how financial people work and the role they play in the organization’s success”. Mike Hammer

3.1.7 Business math & written communication skills

Business algebra: Learning about simple equations, graphs and units will be introduced in a fun and thought-full way



Foundational Learning Handbook

Written communications skills: Classes will show how to present ideas and thoughts using key thoughts outline and elevator type presentations.

3.1.8 Problem solving:

3.1.8.1 Optional two week coding class

3.2 Project Rubric:

	Not yet demonstrating	Beginning	Meeting plans	Exceeding
Team Work	Sees this as just a group	Recognizes that this means working together	Understand about a culture	See themselves as making their teammates successful
SEL skills	Not well behaved	Stops to think about control	In control most times	Works well with others
Independent studies	Doesn't know where to begin	Can build a schedule		Does independent work
Problem solving		Knows the steps	Lays out a plan	Masters each step
Business focus	Not sure what this means	Beginning to understand "the Agenda"	Articulate about the customer needs	Can set measurements to make the customer and company successful
Process understanding		Lays out the elements	Can set the flow map	Provides the measurements
Questioning skills	Random questions	Yes/no questions	Understands open ended questions	Uses questions as part of the learning process
Reflection	Does not think of the past	Understands what they learned	Connects the thoughts in discussion of what they learned	Uses their discuss to learn from what they did
Presentation skills	Randomly tells a story	Begins to organize their thought	Organizes their thought	Organizes and understands what their customers need

Use for weekly reviews.

Category	Exceeds Expectations	Meets Expectations	In Progress	Does Not Meet
----------	----------------------	--------------------	-------------	---------------



Foundational Learning Handbook

Time Management	-Class-time was used appropriately -Used spare time to add to assignment	-Class-time was used appropriately	-Did not use class time to its fullest	-Did not use class time to work on product
Preparation	-Brings needed materials to class -Is always ready to work	-Almost always brings needed materials to class and is ready to work	-Almost always brings needed materials to class but needs to settle down and get to work	-Often forgets needed materials or is rarely ready to get work
Collaboration	-Effectively works in a group -Takes leadership role or delegated role in group -Lots of communication	-Works in group well -More communication could have benefited the group	-Limited collaboration in group -Others had to take over tasks assigned to you	-Did not participate in group
Attitude	-Student is always respectful of his or her self, others, and teacher, has a positive attitude -Never critical of other ideas or the work of others	-Rarely is critical of ideas or work of others -Often has a positive attitude about the task(s) -Usually treats others with respect	-Occasionally has a positive attitude about the task(s) and behaves in a respectful manner	-Often is critical of the work or ideas of others -Rarely behaves in a respectful manner
Problem-Solving	-Actively looks for and suggests solutions to problems	-Refines solutions suggested by others	-Does not suggest or refine solutions, but is willing to try out solutions suggested by others	-Does not try to solve problems or help others solve problems -Lets others do the work

Sarah Wadehul

3.3 Life-Skills (soft skills): Students become cognitively aware of their life skills while doing activities:

Our approach is unique in that it brings together the needs of both sides in the workplace. Our program shows the new trainees how that can interface with the companies' values while building their strengths to become a



Foundational Learning Handbook

needed employee or owner. The company gets an employee with a culture and values that fit nicely into a corporate culture.

The following is a grouping of the life-skills that will be incorporated in the training:

Attitude (positive attitude, focus, emotions, flexible, moral leadership)

- **Social & emotional learning** ([character development](#), [empathy](#), responsibility, [self-esteem](#), flexibility, self-discipline)
- **Team-work** (charter, respect, values, [listening](#), trust, diversity, culture,) ... ***working like a sports team***
- **Problem-solving** ([creative & critical thinking](#), decisions, planning, curiosity, [reflection](#))
- **Personal skills**, ([financial-literacy](#), [time-management](#), [communication](#) (verbal & non-verbal, goal setting))
- **Business literacy** (quality, processes, matrices, change management reporting, [leadership](#), judgment, customer focus, info. mapping)

Key individual interface Email, Social networking, YouTube, Self-branding skills (Who you are), Networking

Social & Emotional learning (SEL) graphic pictures

the mental and moral qualities distinctive to an individual

[Character development](#)

[Executive functions](#)

[Thinknig skills](#)

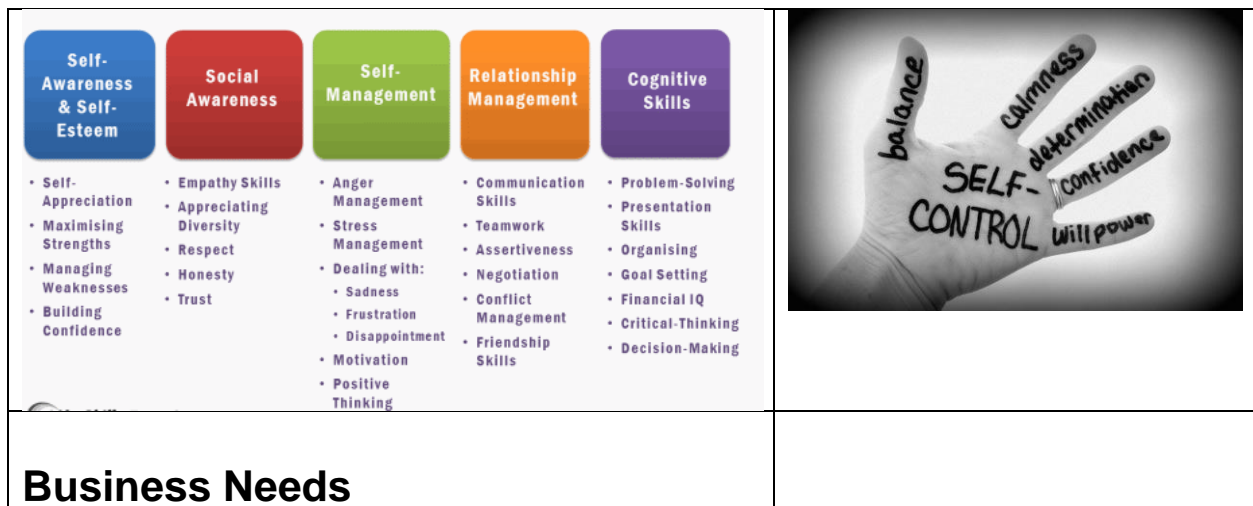
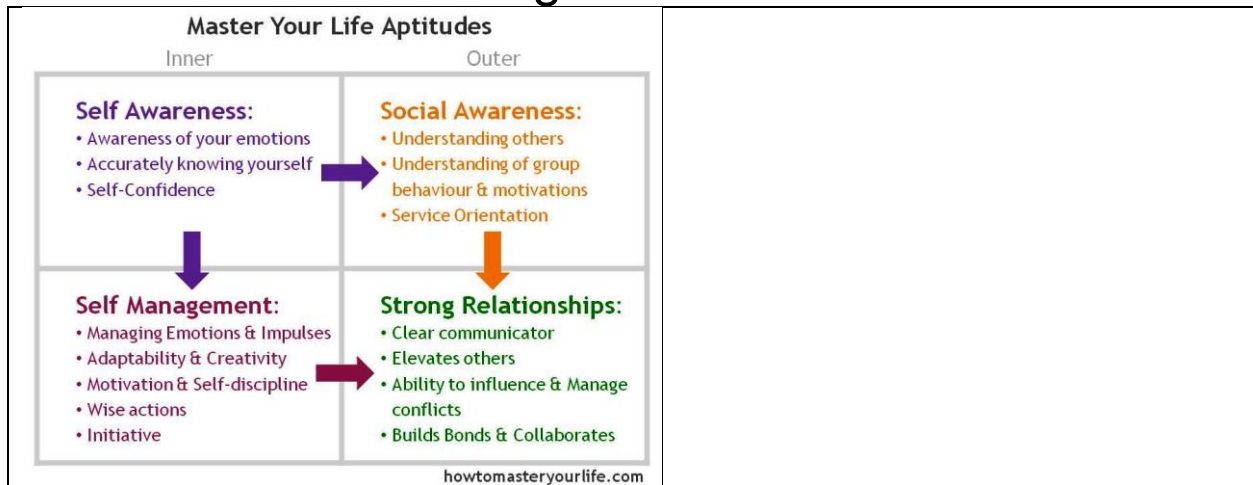
[Habits of mind](#)

[Social Intelligence](#)

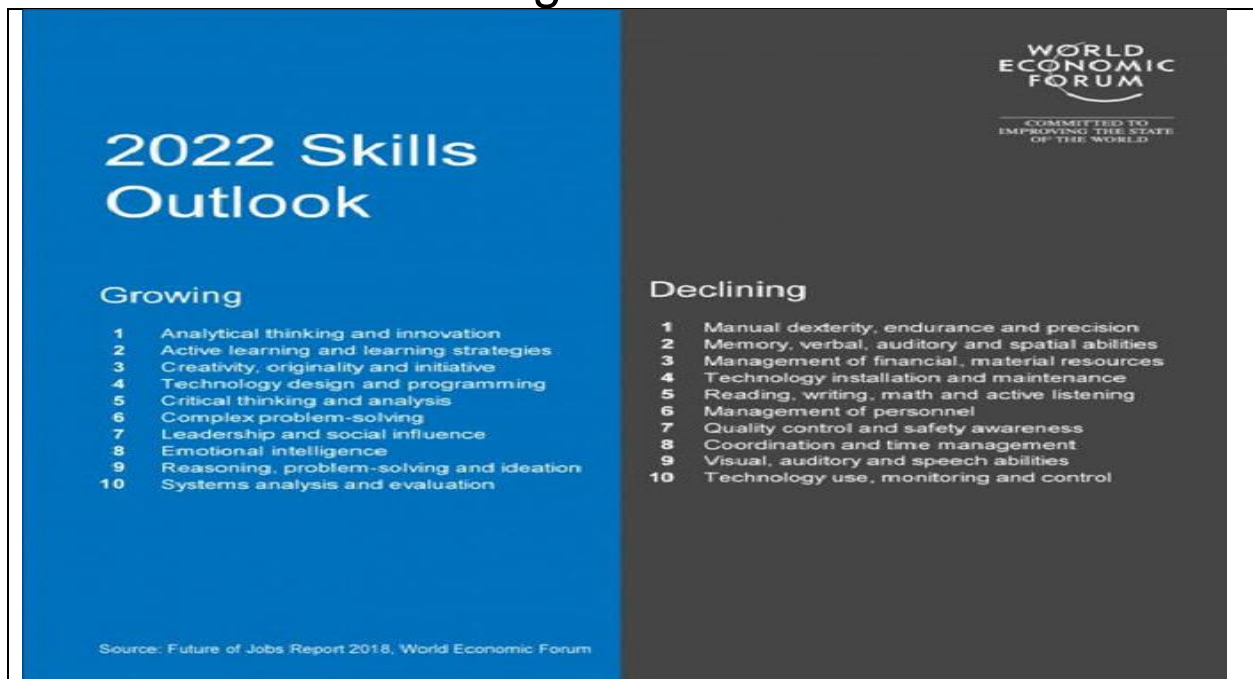
[Emotional Intelligence](#)



Foundational Learning Handbook



Foundational Learning Handbook



3.4 Learning process/Tools: Tools are used within the learning to make it more fun that engages the student to enhance the learning. Each class hour is broken into three sessions

Class time organization:

- 15 min. of class learning/discussion video's , tutorials
- 30 min. of Exercise / Activities by the teams
- Break

Tools:

- [Improv.](#)
- [Drawing exercise](#)
- Problem solving
- Team building games
- [Socratic Questioning](#)
- Seminars on relevant topics
- Video tutorials available on the web

3.6 The following are our Uniqueness:



Foundational Learning Handbook

The program focuses on teaching life-skills to create a well-rounded individual who will fit into the work environment. It uses the concept of mindset thinking around the following:

- Ownership mindset ... ***Think like an owner***
- Cultural Engineering mindset ... ***Provide leadership & management of a project***
- Growth mindset ... ***Your brain is like a muscle, use it or lose it***
- Team mindset ... ***To be successful. need to work together***
- Brand mindset ... ***Who are you and how to show the world***
- Life skills ... ***Students become cognitively aware of their life skills while doing activities***

3.7 The Agenda by Mike Hammer

Our program incorporates the elements from the book by Mike Hammer that details what a great company must do. These skills are an integral part of curriculum. Our belief and experience is that if the students have internalized these concepts they will make great employee.

1.	Make your-self easy to do business with.
2.	Add more value for your customers.
3.	Obsess about your processes.
4.	Turn creative work into process work.
5.	Use measurement for improving, not accounting.
6.	Loosen up your organizational structure.
7.	Sell through, not to, your distribution channels.
8.	Push past your boundaries in pursuit of efficiency.
9.	Lose your identity in an extended enterprise.
10.	End to end process measurements



Foundational Learning Handbook

From our experiences in business & education, we have created a curriculum that sifted out the manual part of work and created thinking employees with unique mindset thinking and life-skills to be productive in your organization. ***These are the people that AI will be difficult to replace.***

3,8 Training videos:

Videos that are available on YouTube and other sites will be incorporated in the class room training.

<https://www.youtube.com/user/macmillanELT> Also available is <https://www.skillsyouneed.com/> an organization that provide tutorial on life skills.

4.0 Schedule

4.1 Course details:

Major area	Theme
Introduction / Creating a learning collaborative in the classroom / pre-Assessment of engineering knowledge and thinking skill awareness	Attributes, Values, Teacher Skills and the relation to excellence in academics and the larger world of work. Developing the outcome goals for the class.
Work in teams	Part of Team Project ...Collaboration, decision making, brain writing
Problem framing and solving Empathy	Part of Hands on Learning ... understanding what the true problem is and tinkering with ways to solve the problem
Creative and critical thinking skills around the design process	Learn the tools of brainstorming, brain-writing, and decision making for divergent and convergent processing skills
Brain Plasticity ... Growth mindset <ul style="list-style-type: none">• Carol Dweck, Ph.D	... we continuously are able to learn new things Two 30 minutes discussions a total of 60 minutes spent teaching not math but a single idea: that the brain is a muscle. Giving it a harder workout makes you smarter. That alone improved their math scores.



Foundational Learning Handbook

Major area	Theme
<ul style="list-style-type: none"> Claude M. Steele Ph.D 	
Habits of Mind	Built into projects and continuous discussion
Infusion of thinking skills	Create an appreciation for life-long learning by providing opportunities to develop creative and critical thinking skills
Dialogue	... 6 Hats How to create dialogue and not shouting matches. Using dialogue question
Professionalism	Respectful dealing with others
Entrepreneurships / Innovation	Business processes... Persistence, problems as opportunities, finding humor, accuracy in your work, remain open to continuous learning
Conclusions, Self-Assessment Quality focus	Understand why you did certain things, What can you learn from your actions to improve How can you use data to improve?
Community support <ul style="list-style-type: none"> Job training Internships Technicians Apprenticeships Mentors 	<ul style="list-style-type: none"> Get a partnership with industry that provides career opportunity if we provide a person with good soft-skills. Retail stores, Warehouses, etc. Relationship with non-profits that focus on this area.

4.1.1 Team Work

People who work together will win, whether it be against complex football defenses, or the problems of modern society... Vince Lombardi

Organizational Team ... Come together as a team to achieve a common goal.



Foundational Learning Handbook

Organizations have a culture



- Elements of Culture
 - Language
 - Communication
 - Symbol
 - Gesture, sound, color, design
 - Values
 - Goodness and beauty
 - Beliefs
 - Shared ideas
 - Norms
 - Rules and expectations
 - Rituals
 - Rites and Public ceremony

The sum of attitudes, customs, and beliefs that distinguishes one group of people from another.

Culture is transmitted, through language, material objects, ritual, institutions, and art, from one generation to the next.

Organizational Culture

What do we want it to be?

•**Example:** the team/ school will foster a culture of a learning environment, with all treated as adults and with respect.

•**Key values are:**

•Respect, Trust, Empathy, Kindness, Curiosity, Innovation, Persisting, Flexibility, Continuous learning. Humor and Taking

Schedule

Time	Activity
	Culture Discussion
	Community
	Creating charter

The community will operate will the following norms:

- Build bridges and learning from other societies
- Working towards stretch goals
- Measurements are for learning and continuous improvement
- Making the world a better place



Creating a team charter First, create a team charter to define the purpose of the team, as well as each person's role. Present this charter at the first team meeting, and encourage each team member to ask questions, and discuss his or her expectations. Next, consider organizing team building exercises. When chosen carefully and planned well, these exercises can help "break the ice" and encourage people to open up and start communicating.

The Charter Covers:

- Goals (Fun,),
- How will we be measured at the end,
- Roles that the team will do, (Scribe, Captain, Planner, Advisor, Tester, Public reporter,)
- Our values, ... Curiosity, Trust, Flexibility ,,,
- Deliverables?
- How will we handle conflicts?



Foundational Learning Handbook

Learning aids:

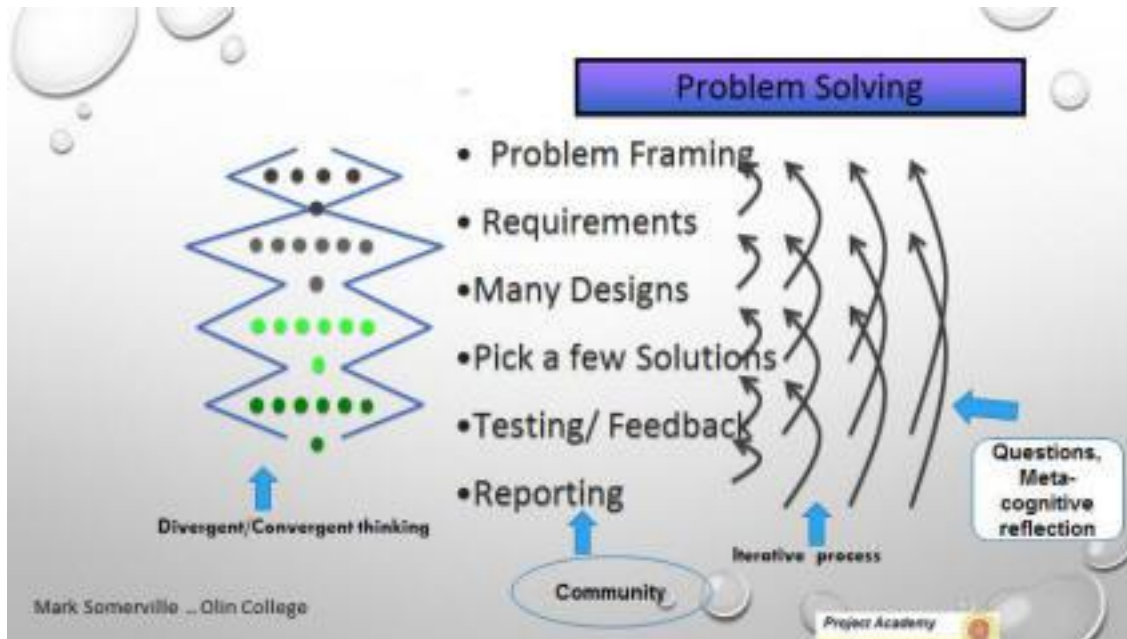
Processes	Activities
One-pager	Conflict resolution
Discussion ...very good overview to begin	Team charter work sheet
Flow-map ... of the process	Team roles work sheet
Five principles teaching students to work in teams is one of the most important goals of a twenty-first-century teacher.	Listening skills
Wonderful Principles <ul style="list-style-type: none"> • Respecting Others • Show Support • Encourage Participation • Give Positive Feedback • Listen Before You Speak • Honest 	Like a sports team
	Team work sheet

4.1.2 Problem Solving... Tools

Description	Details
<p>Dr. Deming ... 14 points</p> <p>Softskills ... Conway</p>	



Foundational Learning Handbook



Task	Explanation
Divergent/Convergent thinking	
Iterative process	
Questioning	http://www.projectacademy.org/Documents/questions_relationship%20to%20the%20engineering%20Design%20Process_071207.pdf
Problem Framing	http://www.projectacademy.org/fuller/problem-framing.pdf
Requirements	http://www.projectacademy.org/Documents/Requirements_03102011.pdf
Research	
Many designs	Brain Storming / Writing Shaping
Pick	Decision making
Testing/ Feedback	
Reflection	http://www.projectacademy.org/fuller/reflection-skills-012017.pdf



Foundational Learning Handbook

Reporting	http://www.projectacademy.org/Documents/elevator-pitch-09182016.pdf Preparing the presentation: http://www.projectacademy.org/fuller/Presentation%20Day%20Check%20list.pdf
Celebration	

How are we going to learn these skills in our project of Teamwork, Problem-solving and Presenting?

- Create a description of the skill and write it up, definition
- Draw a picture
- Do a sketch of the skill as a team
- How do we practice the skill?

4.2 Monthly class details Month 1

Week 1 Introduction/ Course objectives Problems as opportunities Teamwork/life-skills Who am I? My skills; Here's an excellent video Culture in an organization	Day	Learning	Life-skills
	1	Intro, Ice breakers, My likes (what interests me)	Attitude Hand-shake Inter-personal
	2	Building a team, culture, values	Positive attitude
	3	Role playing, Improv Negotiation	Keeping your focus
	4	Mapping our learning, mindset , brain plasticity	Controlling your emotions
	5	Why teams are important to be successful	Flexible
Week 2 • Study project: Trip to the mall to observe retail work force Selecting a problem, Team rules Problem-solving	Day	Learning	Life-skill
	Day	Learning	Life-skill
	1	Work place problem to solve	Respecting others



Foundational Learning Handbook

	2	Research the problem we will work on	Active listening	
	3	Field trip... How do people act when serving the customer	Working together	
	4	Problem activity	Being reliable	
	5	Problem solving	Understanding the problem-solving process	
	• Discussion web tools; problem solving Process • Collaboration 6 hats • Engr. Is everywhere			
Week 3 Study project: Trip to the Waltham manuf. Museum or MIT Physical appearance	Day	Learning	Life-skill	
	1	Testing, Reflection	Responding to conflicts in a positive manner	
	2	Elevator pitch	Helping customers	
	3	Field trip	Time management	
	4	Branding ... what does it mean and how does it apply to us.	Planning ahead	
	5	Work environment, customer, processes, metrics; a day at work	Work place ethics	
Week 4 Trip to the Framingham hospital; Reflection/ Re-due Personal Hygiene & Dress Non-verbal skills	Day	Learning	Life-skill	
	1	Work environment, planning	Info mapping writing	
	2	Social & Emotional learning	Thinking skills (creative & critical), questions & reflection	
	3	Field trip -self-directed work team	Measurements & Feedback	
	4	Branding, interviewing, dealing with others	Problems as opportunities	
	5	Preparing for the project		
	Discussion web tools; problem solving Process • Collaboration 6 hats • Engr. Is everywhere			



Foundational Learning Handbook

Month 2 Week 5,6,7,8,

Working as a Team & Problem solving... Follow-up on second 4 weeks

- Create team organization & guidelines
- Pick problem to solve and report on
- Using good reporting tools (elevator pitch, mapping)
- Mistakes are what we learned from

Picking a problem

Interview a sports team

Month 3

Week 9 Process designer Customer needs and the business improvement Working between two organizations	Day	Learning	Skills
	1	Critical & creative thinking	Asking questions
	2	Communication	Listening
	3	System thinking	Thinking skills
	4	Common sense	Reasons
	5	Make your-self easy to do business with	
Week 10 Assessment/ measurements Balance scorecard	Day	Learning	Life-skill
	1	Process	
	2	End to end processing	
	3	Measurement	
	4	Financial thinking	



Foundational Learning Handbook

	5	Reflection	
Week 11 Finance literacy Entrepreneurship	Day	Learning	Life-skill
	1	Goal setting	
	2	Customer value	
	3	Personal management tools	
	4	Testing process	Learning from failures
	5	entrepreneurship pathways provide value by engaging opportunity youth and developing noncognitive skills.	
Week 12 Summary/ Review Failure is a form of learning	Day	Learning	Life-skill
	1	Elevator pitch	
	2	Presentation skills	
	3	Branding process	How did it change?
	4	Community presentation	
	5	Review	
Elevator pitch: http://www.projectacademy.org/Documents/elevator-pitch-09182016.pdf Presentation check-list: http://www.projectacademy.org/fuller/Presentation%20Day%20Check%20list.pdf			
Month 4 +			
Week 13	Day	Learning	Life-skill



Foundational Learning Handbook

Evidence Based: Create and iterate approaches based on research and experience with partners across the labor market Partnership Oriented: Collaborate with existing players to pursue the fastest, most effective path to change	1	Critical thinking	
	2	Customer value	
	3	Change management	
	4	Data analyzes	Learning from failures
	5	Engineering mindset	
Week 14 Are we creating another category of worker? Project Planner? Thinking Technician	Day	Learning	Life-skill
	1	Process designer	
	2	Change management	
	3	Info.-mapping,	
	4	math (algebra, tables)	
	5		
Week 15 Business & Thinking tools	Day	Learning	Life-skill
	1	Info mapping	
	2	Process diagrams	
	3	Balanced Scorecard	
	4	Flow charts	
	5	Data sheets & Summary	



Foundational Learning Handbook

Week 16	Day	Learning	Life-skill
	1	AI	
	2	Robotics	
	3	Internet of Things	
	4	Analytics	
	5	Cerebration	

5.0 Example of a day's training ... Lets focus on training in the team formation

People with the kinds of backgrounds that indicated they were **highly motivated** and had the **ability to learn new ways** of doing things

Module Description	Module Description	Learning Objectives Students will be able to:	Behavioral Goals
Team format	<p>Though a series of activities students will develop a team charter and learn various life-skills for working together</p> <p>Teams will compete in various games & Improv activities.</p>	<p>Understand to similarities of a learning team to a sports team</p> <ul style="list-style-type: none"> • Relate the team to a community organization 	<p>Students will be able to work together and deal with issues in a positive manner</p> <ul style="list-style-type: none"> • Interpersonal skills will be practiced

From our monthly schedule; **Day 2, 5 Week 1...** Why teams are important to be successful

Each classroom hour

- 15 min. of class learning/discussion
- 30 min. of Exercise / Activities by the teams
- Break

Tools



Foundational Learning Handbook

Improv.	<ul style="list-style-type: none"> Drawing exercise 	<ul style="list-style-type: none"> Problem solving
Team building games	Socratic Questioning	Seminars on relevant topics

Overview:

create a learning team that has shared values and a set of developed norms; Below are the table of classes from the mail schedule.



hour	Day 2		Day 5
1	Discussion of what is a team		Summary of our team
2	Sports team discussion		Improvement
3	What is Culture		Spaghetti tower
4	Culture		Creating the charter
lunch			
6	Building the charter		Team positions
7	Charter		Boss vs Customer
8	Role-play		Reflection

Team learning

- How should it operate?
- How does it compare to a sports team?
- What are our roles?
- How am I successful?
- How do we communicate and collaborate, together?

Essential Questions



Foundational Learning Handbook

1. What do I bring to the team?
2. What are our commitments to one another?
3. What differences exist between us?
4. How will we operate?
5. How will we know we are succeeding?

Team Charter:

- Overview of the Team function
- Measurable team goals, roles, Deliverables
- How will we measure success?
- Expectations ... How are we going to work together? Handle conflicts?

Three questions to answer *Yale Center for Emotional Intelligence*

1. How do you want to feel as a team?
2. What can we each do in order to have those feelings more often?
3. How will we handle conflicts when they arise

- Comparison to a sport team
- Creating a learning team charter
- What roles will we have in our team
- Diversity, Values of a culture, Listening skills, Collaboration, Character development

Building the team culture

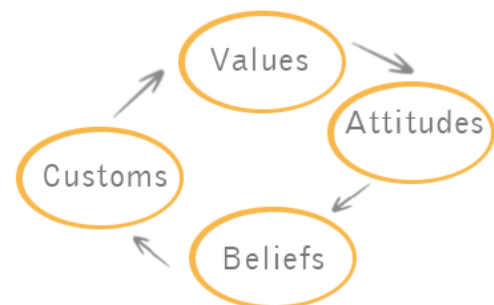
Creating teams- Like a Sports/Music team:

... Listen to each other; become a learning team... What is our culture?

- Overview of the project
- Measurable team goals, roles, deliverables

Create a team charter, The Charter Covers:

- Goals (Fun,),
- How will we be measured at the end,
- Roles that the team will do, (Scribe, Captain, Planner, Advisor, Tester, Public reporter,)
- Our values, ... Curiosity, Trust, Flexibility ,,,
- Deliverables?
- How will we handle conflicts?



teaching students to work in teams is one of the most important goals of a twenty-first-century teacher

Here's an [excellent video](#) to help you get started in building your own culture and values.



Foundational Learning Handbook



- Elements of Culture
 - Language
 - Communication
 - Symbol
 - Gesture, sound, color, design
 - Values
 - Goodness and beauty
 - Beliefs
 - Shared ideas
 - Norms
 - Rules and expectations
 - Rituals
 - Rites and Public ceremony

6.0 Business & Community Involvement

6.1 Business

Businesses are reporting that a major need for their success are employees with life skills such as; interpersonal skills, communication skills, teamwork, critical thinking and problem solving. Our program intends to work with local businesses to insure that we provide these skills in addition to a positive attitude and seeing problems as opportunities.

Become a supplier of applicates for Apprenticeship and mentorship programs. Project Academy provides the up-front life-skills while the other programs provide the specific job-related skills.

- A voice of the business ... need to operate efficiently
- A voice of the customer ... What the customer wants and will pay for

6.2 Community

Involving parents in projects is productive for several reasons. Projects show parents what quality learning in the twenty-first century can be.



Foundational Learning Handbook

Parents enjoy seeing their children as motivated, enthusiastic students. And parents recognize that the skills taught through projects will be critical to their children's success.

- Ask parents to serve as judges. Parents can sit on panels for presentations and use rubrics provided to assess student performance.
- During an exhibition, have parents circulate among students and ask questions. Give parents prompts before the exhibition. Debrief with parents.
- Have a student-teacher-parent discussion after the project. What did parents see that they liked? What do they question? What suggestions do they have?
- Plan with parents. Thinking about projects for the year ahead? Sit down with a small team of parents and plan together.

Hammer, Michael. Faster Cheaper Better The Crown Publishing Group.
Hammer, Michael. The Agenda

Articles about Workplace Skills:

Quick guide to teaching workplace skills	Realcare-curriculum-employment-skills
Mid-career life skills	Hand-book-career-guides
SoftSkills-give-workers-big-edge	JPMorgan New-skills
Skill gap & how to address it ... McKinsey	The growing importance of social skills in the labor market
Securing a new job	



Foundational Learning Handbook

Creating training pages for the Pre-employment training manuals

Each training plan will have the following elements:

- **Background**
- **Learning details**
- **Desired outcomes**

Topics:

- **Critical thinking**

http://www.projectacademy.org/Documents/critical_thinking_module_10312013.pdf

Critical_thinking_module_12232012 powerpoint in Presentation

- **System thinking / Visual thinking**

http://www.projectacademy.org/Documents/mindmapping_11082016.pdf

- **Using Questions**

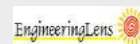


Module ... Creativity



Objectives are:

- Having students see the **structure** and **fun** in using creativity techniques to learn.
- See how creativity is another tool in building exciting learning elements.



http://www.projectacademy.org/Documents/Children%20learning%20to%20question_08072012.pdf

- **Business thinking Ownership mindset**
- **Engineering thinking/ design**
- http://www.projectacademy.org/Documents/Problem%20Framing_08212012.pdf



Foundational Learning Handbook

- **Process thinking**

- **Decision thinking**

http://www.projectacademy.org/Documents/Decision%20Matrix_08132010.pdf

Creative & Critical Thinking

Creativity is the bringing into being something which did not exist before, either as a product, a process or a thought.

Critical thinking is a way of thinking that enables us to think at the highest level we are capable of.

Critical Thinking

Analyzing the past
* What evidence?
* What is the author's purpose?
* Convergent thinking
* Skepticism is a virtue

Creative Thinking: Creativity improves pupils' self-esteem, motivation and achievement

Brain storming

Divergent thinking

Exploring your environment & testing many options

Stimulate curiosity

Innovation & entrepreneurship

Meta-cognitive reflection

- * What do I want to understand?

- * What have I learned?

What do I still need to learn?

- * Provide feedback for reflection

- * Regulate ones behavior

*



Foundational Learning Handbook

Questions ... Engaging the student

* Logical Sequential
* Open ended
* Listening is the first step in good Questioning
* Provocative
* Engage
* Encourage higher order thinking

Critical thinking

http://www.projectacademy.org/Documents/critical_thinking_module_10312013.pdf

Title: Critical thinking learning module

Background: One of the key aspects of any project or task is the gather information concerning the problem you are trying to solve. You will rely on the truthfulness of this information to help solve the problem. How do you know if the information is accurate and correct? In today's world of "Fake News" it is very important that you apply critical thinking process to the information you are gathering.

Critical_thinking_module_12232012 powerpoint in Presentation

Learning details:

- Analyzing the past
- What evidence?
- What is the author's purpose?
- Convergent thinking
- Skepticism is a virtue



Foundational Learning Handbook

Convergent Thinking ...tending to move toward one point or to approach each other : CONVERGING <*convergent* lines>

Lesson Plan: Provide a statement and ask the teams to determine if its true and the reason why.

- Asks appropriate clarifying questions
- Judges well the quality of an argument, including its reasons, assumptions, evidence, and their degree of support for the conclusion
- Formulates plausible hypotheses
- Defines terms in a way appropriate for the context
- Draws conclusions when warranted – but with caution

