| Engin 103 September 13, 2011 back to e-syllabus	Topics: Brainstorming Example: Phases 3-4-5 Teamwork: A Case Study More on Teamwork and Presentations Logbook questions

Brainstorming: helps generate and filter ideas for a new project.

A Brainstorming Example: Leadership skills
Phase 1

Team leader: please copy this entire file into a Word file, then use Save As/ Web page (*.htm,*.html) to save it as 'brainstorming.html' (you should include the extension '.html'!) into a flash drive or a temporary folder in the hard drive. After having your team discuss the Phase 1 question below, record the answer into the appropriate row. Save and close the file, **then upload it onto the 'files' folder in the server** via ftp://www.students.umb.edu using the login information provided for your team.

Create the **files** folder in the server window if it is not there. After uploading, the **files** folder should contain the 'braingstorming.html' file.
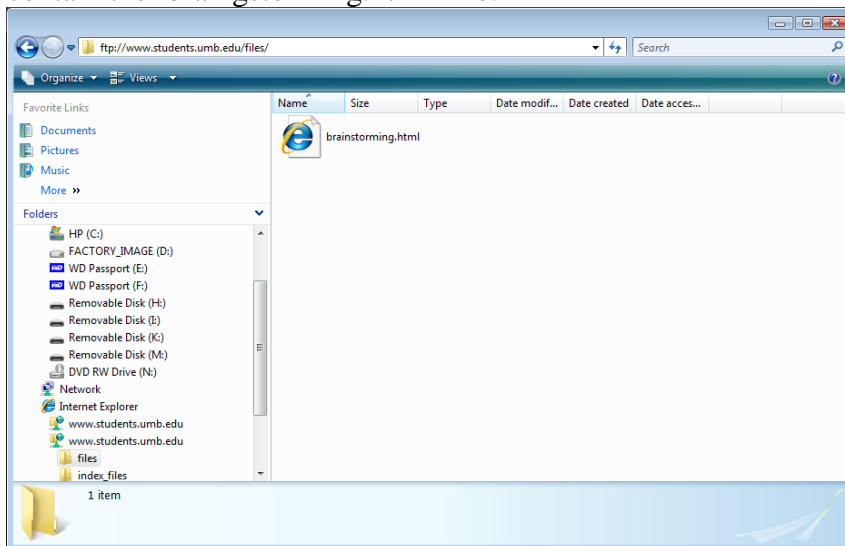
What is one skill that you can develop to be a good team leader?

Team #		One skill for a good team leader	
Section 1	Section 2	**Section 1**	**Section 2**
1	*1*		
2	*2*		
3	*3*		
4	*4*		
5	*5*		
6	*6*		
7	*7*		
8	*8*		
9	*9*		
10	*10*		

Phase One Results 09-08-11: One skill for a good team leader	
Section 1	**Section 2**
Delegation	Responsibility
Communication	Organization
Motivate members	Organization
Drive	Delegation
Organization	Reliability
Constructive criticism	Organization
Organization	Organization
Communication	Communication
Strong personality	
	Passion

Phase 2

Team leader: please update the file you uploaded in the previous Phase. After having your team discuss the Phase 2 question below, record the answer into the appropriate row in this table. Save and close the file, then upload it onto the 'files' folder in the server via ftp://www.students.umb.edu using the login information provided for your team. If the *ftp* window is still open, you just need to drag and drop your 'brainstorming.html' file into that window.

What is one new skill that has not been entered in the previous Phase?

Team #		One skill for a good team leader, that has not been pointed out by any team in Phase 1	
Section 1	Section 2	**Section 1**	**Section 2**
1	*1*		
2	*2*		
3	*3*		
4	*4*		
5	*5*		
6	*6*		
7	*7*		
8	*8*		
9	*9*		
10	*10*		

Phase Two Results 09-08-11: one skill that has not been entered in the previous Phase	
Section 1	**Section 2**
	Accountability
Manage diversity	Attention to details
Commitment	Bedazzled
Creativity	Being positive

Budget management	Holism
Open minded	Tact
Work distribution	Collaboration
Perseverance	Listening skills
Risk taker	
	Fairness

Phase 3

Team leader: please update the file you uploaded in the previous Phase. After working with your team to eliminate repeated skills and to group related skills, record the different groups into different rows in the table below. Save and close the file, then upload it onto the 'files' folder in the server via ftp://www.students.umb.edu using the login information provided for your team. If the *ftp* window is still open, you just need to drag and drop your 'brainstorming.html' file into that window.

Sorting: eliminating repeated skills and grouping related skills together

Section 01

Team #		Classify previous 20 entries into groups of related skills, put each group into a box below. You don't need to use all ten boxes.								
Section 1	Section 2									
1	1	Personality Traits: open minded, willing to listen, strong personality, good team player, motivated	Responsibility: distribute work equally, organization, commitment							
2	2	Management: take note of individual strengths and weaknesses, provide direction, setting directives and delegating work	Personality: Versatile, committed to directive yet open to input from other members	Skills: capable of lending help to team members (this would require strong knowledge of the particular field, Superb communication skills, budgeting						
3	3	Skills: Listening, organize, constructive criticism, strong communication skills, budgeting	Personality: Open minded, Perseverance, risk taker, strong personality, motivated							
4	4	Organization: Budget management, Time management, cleanliness (Crisp and clean work)	Leadership: Communication skills, respectful, open-minded, drive/motivation, commitment, optimism.	social skills: communication, perseverance, offering, open minded, verbal, motivation	job skill: work distribution, budget/time management, problem solver					
5	5	Finances:	Personality: open	Office Skills:						

		Budget management, accounting, and Microsoft (excel) proficient (if required).	minded, leads by example, willing to learn, and optimistic.	organized, delegate, intelligent, and listener.						
6	6	Team Work- creativity, constructive criticism, open minded	Leadership-work distribution, budget management, communication	Work Ethic- commitment, organization						
7	7	Skills: Management, commitment, organization, work distribution, Problem solver,	Leadership: Communication skills, drive/motivation, respectful, open-minded, commitment.							
8	8	Organization- Work distribution, time management, communication, perseverance, budget management Strong Personality- Offering, open-minded/persistent, verbal, eager	creativity- Innovativeness, full of ideas, mindful, critical/accepting		Organization- Work distribution, time management, communication, perseverance, budget management Strong Personality- Offering, open-minded/persistent, verbal, eager						
9	9	Responsibility: Management, organization, commitment, risk taker, work distribution .	Charismatic personality: constructive criticism, attitude, team player, open minded, strong personality, Listen to others, motivator.	Creativity: continuous ideas, problem solver, binding ideas.	Responsibility: Management, organization, commitment, risk taker, work distribution.						
10	10	Organization- Work distribution, time management, communication, perseverance, budget management Strong Personality- Offering, open-minded/persistent, verbal, eager	creativity- Innovativeness, full of ideas, mindful, critical/accepting		Organization- Work distribution, time management, communication, perseverance, budget management Strong Personality- Offering, open-minded/persistent, verbal, eager						

Section 02

Team #		Classify previous 20 entries into groups of related skills, put each group into a box below. You don't need to use all ten boxes.
Se cti	Se cti	

on 1	on 2								
1	1	Personality Traits: open minded, willing to listen, strong personality, good team player, motivated	Responsibility: distribute work equally, organization, commitment						
2	2	Management: take note of individual strengths and weaknesses, provide direction, setting directives and delegating work	Personality: Versatile, committed to directive yet open to input from other members	Skills: capable of lending help to team members (this would require strong knowledge of the particular field, Superb communication skills, budgeting					
3	3	Skills: Listening, organize, constructive criticism, strong communication skills, budgeting	Personality: Open minded, Perseverance, risk taker, strong personality, motivated						
4	4	Organization: Budget management, Time management, cleanliness (Crisp and clean work)	Leadership: Communication skills, respectful, open-minded, drive/motivation, commitment, optimism.	social skills: communication, perseverance, offering, open minded, verbal, motivation	job skill: work distribution, budget/time management, problem solver				
5	5	Finances: Budget management, accounting, and Microsoft (excel) proficient (if required).	Personality: open minded, leads by example, willing to learn, and optimistic.	Office Skills: organized, delegate, intelligent, and listener.					
6	6	Team Work- creativity, constructive criticism, open minded	Leadership-work distribution, budget management, communication	Work Ethic- commitment, organization					
7	7	Skills: Management, commitment, organization, work distribution, Problem solver,	Leadership: Communication skills, drive/motivation, respectful, open-minded, commitment.						
8	8	Organization- Work distribution, time management, communication, perseverance, budget management	creativity- Innovativeness, full of ideas, mindful, critical/accepting		Organization- Work distribution, time management, communication, perseverance, budget management				

		Strong Personality- Offering, open-minded/persistent, verbal, eager			Strong Personality- Offering, open-minded/persistent, verbal, eager						
9	9	Responsibility: Management, organization, commitment, risk taker, work distribution.	Charismatic personality: constructive criticism, attitude, team player, open minded, strong personality, Listen to others, motivator.	Creativity: continuous ideas, problem solver, binding ideas.	Responsibility: Management, organization, commitment, risk taker, work distribution.						
10	10	Organization- Work distribution, time management, communication, perseverance, budget management Strong Personality- Offering, open-minded/persistent, verbal, eager	creativity- Innovativeness, full of ideas, mindful, critical/accepting		Organization- Work distribution, time management, communication, perseverance, budget management Strong Personality- Offering, open-minded/persistent, verbal, eager						

Phase 3 (Grouping: entries that are closely related should go to a same group)

Phase 4

Team leader: please update the file you uploaded in the previous Phase. After working with your team to define 5 distinctive categories and place previous-phase groups into these categories, record the 5 categories into different rows in the table below. Save and close the file, then upload it onto the 'files' folder in the server via ftp://www.students.umb.edu using the login information provided for your team. If the *ftp* window is still open, you just need to drag and drop your 'brainstorming.html' file into that window.

Further sorting: defining five distinctive categories and place previous-phase groups into these categories
Section 01

Team #		Define 5 distinctive categories of skills for a good team leader, put each category in a box below. Put previous 20 entries and/or groups into the appropriate category.				
Section 1	Section 2					
1	1	Leadership: communication,	Skills: Listening,	Personality: drive/motivation	Responsibility: Accountability,	

		work distribution	organization, communication, budgeting, problem solving, Microsoft friendly		work-ethic	
[2]	[2]	Organization- Budget adherence, delegation of projects, time management	Communication- effective, effective speaking skills	leadership- Keeps other members on track, able to work with differing personalities, recognize member strengths/weaknesses	background- strong knowledge/expertise in field, able to lend assistance to other members	Personality/temperament- goal driven yet open to input from other members, able to coordinate with all individuals involved in the project (i.e. top to bottom, CEO to technician), keeps their bearing in all situations
[3]	[3]	Responsibilities- manage time, work ethic, dedication	Teamwork- creative ideas, ability to solve problems, good communication	Skills: Listening, organize, constructive criticism, budgeting	Personality: Open minded, Perseverance, risk taker, motivated	
[4]	[4]	Personality: Optimism, Perseverance, Open-mindedness.	Organization: Time management, Budget management, cleanliness.	Leadership: Motivation, Risk taker, respect, responsibility.	Team Skills: Communication, delegation, acceptance.	Skills: Creativity, Problem solving, multi-tasking.
[5]	[5]	Finances: Budget management, accounting, and Microsoft (excel) proficient (if required).	Personality: open minded, leads by example, willing to learn, and optimistic.	Office Skills: organized, intelligent, and listener.	Computer Skills: Good/Fast typer, Microsoft office proficient, Operating systems knowledgeable, programming skills (if required), interpretive skills.	Supervision: Responsible, dependable, time management skills, delegate, and understanding.
[6]	[6]	Team Work- creativity, constructive criticism, open minded	Leadership- personality, open-minded, communication, commitment	Work Ethic- commitment, perseverance, concentration, dedication	Organization-time management, budget management, work distribution	Computer Skills-Microsoft, PowerPoint, Excel
[7]	[7]	Social Skills: Communications, Drive and motivations, Presentations,	Strategy: Tactics, , Observe, orient, decide, Act, Problem solver, Time management	Job Skills: work distribution, budget/time management, Organization,		
[8]	[8]	Skills- Organization, communication,	personality- Charismatic,	leadership- commitment,	responsibility- aware (of	

		budgeting, time management, listening cooperating	perseverant, open minded, accepting, offering	dedication, good work ethic, problem solver	deadlines), resource aware, Able to delegate work/time Teamwork- Independent working, creative in ideas, perseverant	
9	9	Responsibility: management, organization, commitment, risk taker,	Charismatic Personality: constructive criticism, good attitude, team player, open minded, motivator.

Creativity: continuous ideas, problem | Team Management: work distribution, keep the group focused, listen to groups ideas and apply them to project | Intelligence: ability see what goals of project are, notice good ideas and dismiss ideas that don't apply, | |
| 10 | 10 | | | | | |

Section 02

Team #		Define 5 distinctive categories of skills for a good team leader, put each category in a box below. Put previous 20 entries and/or groups into the appropriate category.				
Section 1	Section 2					
1	1	Management and supervision -organization, responsibility, accountability	Commitment -positive attitude, punctuality	Delegation -task distribution, utilizing talents	Team work -Collaboration, good communication	Open Mindedness -Good Listening, attention to detail Leadership-fair, tact,
2	2	Good Communication Tact, good listener	Responsibility Reliability, accountability, organization	Passion Positive, bedazzled	Holism Attention to detail	Collaboration Delegation, fairness
3	3	Interaction: -Listening -Communication	Synthesis: -Holism -Collaboration -Bedazzl(ing)	Design: -Attention to Detail -Delegation	Trust: -Reliability -Accountability -Responsibility	Attitude: -Positive -Tact -Passion -Fairness
4	4	*Group A* - MANAGEMENT Organization Task distribution Attention to detail **these are all skills used to collectively reach a goal	*Group B* - OWNERSHIP Responsibility Passion Reliability Accountability **these skills are used as an individual in a group. Taking ownership to	*Group C* - THE BIG PICTURE Collaboration Holism **working together as one entity to achieve one goal	*Group D* - ACKNOWLEDGEMENT OF INFO Good communication Good listening **these traits are essential, when working with two or more people, to ensure all members understand the	*Group E* - ATTITUDE Being positive Fair Tact **as a leader it is important to remember negativity only holds the team back

Section 1	Section 2				
		your part of the group		process	
5	5	[Dependability] Team responsibility, fair, accountability	[Inspiration] -Being positive and bedazzled	[Qualities] -Good listening skills and tact	[United Community] -Holism and collaboration	[Efficiency] Punctual, organization and attention to detail
6	6	Efficiency [Responsibility, Reliability, Organization]	Interaction [Communication, Tact, Good Listening skills]	Vision [Holism, Passion, Attention of Detail, Bedazzled]	Team work [Collaboration, Fair]	Leadership [Task distribution, Accountability, Respect]
7	7	The group leader's task to keep the team on task organization, management	What the group needs to help keep track of for success responsibilities, communication	What the group needs for success collaboration, delegation, accountability	What the individuals of the group needs for success attention to detail, holism, tact, reliability	How we to keep motivated? being positive
8	8	Responsibility Organized, Reliability	Listening skills Communication, Attention to detail	Team work Bedazzled, Collaboration, Holism	Passion Fair, Positive	Leadership Task distribution, accountability
9	9					
10	10					

Example

Phase 4 (Making 5 Big Categories: Naming Each Group)

Naming each group led to 4 big categories and some reorganization. This also prompted us to introduce a brand new category totally unrelated to the previous ones: Experience. As one progresses through the phases of a brainstorming process, additional thinking is required but the quality of discovered information is also increased.

Phase 5

Team leader: please update the file you uploaded in the previous Phase. After having your team discuss the question below, record the answer into the appropriate row in this table. Save and close the file, then upload it onto the 'files' folder in the server via ftp://www.students.umb.edu using the login information provided for your team. If the *ftp* window is still open, you just need to drag and drop your 'brainstorming.html' file into that window.

What of the previous-phase categories is the most important?

Team #		Which of the five categories you defined is the most important?
Section 1	Section 2	
1	*1*	
2	*2*	
3	*3*	

4	*4*	
5	*5*	
6	*6*	
7	*7*	
8	*8*	
9	*9*	
10	*10*	

Section 1			

Section 2			

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Engin 103

Teamwork -Case Study #1

Engin 103 **team 12** consists of 4 members: A, B, C, D. During Project 0 A acted as the team's leader, he sent out an email regarding the project, only B replied so he thought C and D are not interested in participating, he scheduled meetings with B and they both completed part I of Project 0. During Part I presentations, A and B performed the PowerPoint presentation, while C and D did not participate since they felt they did not contribute to the project being presented.

C and D wanted to change the team, they said they felt left out, were not given a chance to participate in the project. The instructor encouraged the members to try to work together and give it a second chance. In Project 1 member C tried to be more responsive to the team leader, B, and participated as much as possible in the team meetings. At one point D was told to build a part, which will be connected to the team device, for Project 1 presentation. D asked if the team could finish their part then give it to him, he will build his part and connect to the whole system. He asked to have it by 1pm on a Wednesday before the presentation. The team did not think they could have it by that time, also they thought D did not need their part to complete his part, they never communicated their decision back to D. D traveled to the meeting place and waited for an hour on Wednesday afternoon to get the team system, nobody showed up. B, A, C completed the project on their own the night before the presentation, and gave D a poor grade for his participation.

The team improved slightly when C became the leader. However when Project 2 was completed, A, B, C wanted to change the team, they were afraid D would "revenge" by giving them a poor performance grade when he will be the leader for Project 3. D maintained he will promote participation after a meeting with the instructor. Five minutes before the presentation, A and B were still skeptical on D's promises, and since he did not show up yet, they were afraid their grades will be affected because D will not deliver as 'he did not in the previous projects', they thought. However D showed up on time and delivered the presentation using inputs from all members of the team.

Team leaders: Take a look at the Elements of Teamwork Checklist below, discuss with your team to

Team #		Case Study #1 Teamwork element	
Section 1	Section 2	Section 1	Section 2
1	*1*		
2	*2*		
3	*3*		
4	*4*		
5	*5*		
6	*6*		
7	*7*		
8	*8*		
9	*9*		
10	*10*		

Two-way communication is very important

Teamwork -Case Study #2

Engin 103 team 13 consists of 3 members: A, B, and C. The team met and worked on Project 0, everyone did a little bit on their part. When the presentation is due, the member who has the PowerPoint presentation is missing.

Team leaders: Take a look at the Elements of Teamwork Checklist below, discuss with your team to select which **one** element would have helped **Team 13** the most, type in the corresponding box below, save the file, then upload it to the team's "files" folder in the server via ftp://www.student.umb.edu

Team #		Case Study #2 Teamwork element	
Section 1	Section 2	Section 1	Section 2
1	*1*		
2	*2*		
3	*3*		
4	*4*		
5	*5*		
6	*6*		
7	*7*		
8	*8*		
9	*9*		
10	*10*		

A procedure is needed in case of emergencies

Elements of Teamwork Checklist

By Joanne Fortuin, Northern Albert Institute of Technology, Alberta, Canada

COMMUNICATION

Excellent: Free, open expression of ideas and feelings at the right times with no fear of embarrassment or reprisal.
Poor: Stifled, close to the vest, guarded. Lets the other person start the communication.

PARTICIPATION

Excellent: Full Contribution, reaches out to lend a hand, readily available.
Poor: Lack of initiative to help the other person? not around when needed, begrudging contribution.

GIVE AND TAKE

Excellent: Open to compromise, flexible? Recognition that it is sometimes better to give in than be "right".
Poor: Stubbornly dug in on own viewpoint, uncompromising, always right, never wrong.

LEADERSHIP

Excellent: Promotes team actions and decisions, recognizes he/she needs the team, and lets each member know where they stand. Team members support his/her suggestions.
Poor: No leadership initiated. Reacts rather than acts. Poor or reluctant support of ideas.

ORGANIZATION

Excellent: Knows their responsibilities. Provides structure to accomplish team goals.
Poor: Unclear of responsibilities or doesn't care about responsibilities.

PREPARATION

Excellent: Did their homework. Research was thorough, especially as it affects other team members.
Poor: Team progress was held up because of participant's lack of preparation. Consistently dropped the ball.

PROCEDURE

Excellent: Lives by the ground rules and procedures. Functions smoothly, works with the team.
Poor: Absence of order, operates on their own rules, progresses from crisis to crisis.

CAPABILITY

Excellent: Members have confidence in participant and can rely on performance.
Poor: Mediocre "Class C" player not interested in becoming "Class A".

COMMITMENT

Excellent: Participant rallies to the goals. Goals clearly defined in his/her mind.
Poor: Lack of awareness of, or resistance to, team goals.

PROGRESS

Excellent: An attitude of action and momentum, makes suggestions of steps forward.
Poor: Dead in the water ? "Everything is a drag" attitude.

More on Teamwork and Presentations

Please post a question in Google Groups if you are unsure about the right answer for each of the Logbook questions shown below.

LOGBOOK: example of a logbook page

-Use a quadrille notebook; number all pages; date all entries
-Write your notes for all activities, thoughts, problems and solutions, and learning conclusions related to Engin 103. You should write down progress, outcomes, and conclusions on projects and teamwork; conclusions from class work (including LabVIEW) and homework.
-In addition you should answer in the logbook all questions listed in these notes in blue, as shown below:

3)
(a)Which of the five categories of leadership skills summarized in Phase #4 of the brainstorming process is the most basic and important (in such a way that when the other four are absent, it will well help a team leader in Engin 103)? Explain your position in your own words.

(b) Explain what leadership skills would have helped team 12 and team 13 in the Case Study #1 and #2 above, support your claim with reasons and by referring to specific circumstances in the Case Studies.

4) (a)
Teamwork: for each question below select which option is right for a good teamwork, A or B?

Q#	A	B
1	Additive	Complementary
2	Reserved	Open
3	Independent	Interdependent
4	Inquisitive	Defensive
5	Complacent	Discontent
6	Persevering	Impatient
7	Unable	Unequal
8	Different	Uniform
9	Procedural	On the go

(b)

Presentations: for each question below select which option is best for a good presentation, A or B?

Q#	A	B
1	Expert audience	Inexpert audience
2	Know details, wait for questions	Present all details
3	Read from slides	Talk using flash cards
4	Explain connections between things	Point to an equation for the connections
5	Show a graph	Explain tendencies in the graph
6	Plan on using 100% allotted time	Plans for 100%, 90%, 80% or 70% of allotted time
7	Large fonts, uniform background	Small fonts, rich background
8	Only presentation matters	Presentation and presenters are equally important
9	Speaking too loud bothers	Speaking too soft bothers
10	Clear oral presentation	Clear oral presentation with slides

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