

Group Project Strategies: Letting Students take the Lead

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Overview

- Problems
- Why we should continue to use
- The \$4,000 answer to project procrastination
- Falkofske's 5-part model
- Comments on model
- Small group brainstorming
- Large group sharing

What do students say about Group Projects?



Problems arise in Group Projects

- Students resist group project work
- Group members face unequal distribution of work (**SLACKERS** vs. perfectionists)
- Planning problems and personality conflicts
- Final deliverables failing to meet instructor expectations, leading to lower grades and frustrated students

So...
why even
try?



Benefits Employers!

- Top traits sought by employers:
 - Leadership
 - Strong Communication Skills
 - Team Player
 - Organized
 - Detail Oriented
 - Problem Solving Skills

Brown, Doug. "Six Common Traits Employers Look for in an Interview." [Fort Worth Business Press](#); 6/13/2003, Vol. 16 Issue 24, p7.

Supports Good Pedagogy!

- Students practice higher order learning
 - Compare, analyze, contrast, debate
 - Compose, design, arrange, construct, organize
 - Rate, assess, revise
- Students explore issues more deeply
 - Research
 - Discuss
 - Apply

Develops Interpersonal Skills!

- Interviewing
- Sharing
- Negotiating
- Leading
- Delegating
- Communicating
- Coaching
- Compromising
- Commiserating
- Celebrating

Other Reasons to Use Group Projects?

The \$4,000 Hint*

- Assign students to projects based upon FREE blocks of time that individuals can do project work
- No excuses that members “can’t meet” – because group is based upon their availability
- Students can find common research / project interests as first group task

*Early in my teaching experience, two of five project groups “imploded” on their semester-long MIS projects primarily due to conflicting schedules. My teaching salary was approx. \$4000 – and my learning during this experience was equally valuable.

5 Part Model

- Clear and incremental group deadlines
- Functional Leads
- Ongoing peer evaluations / critiques
- Grading rubrics to clarify expectations
- Presentation to expert, then class

1. Clear & Incremental Deadlines

- 20% of project points are awarded for meeting firm deadlines; points for each checkpoint are “all or nothing” to help enforce organization and avoid procrastination
 - Week 4 – Project Description Due (2%)
 - Week 6 – Research References Due (3%)
 - Week 8 – Draft of Project Plan and Peer Grading Rubric Due (4%)
 - Week 12 – “Reality Check” Outside Expert Evaluation Due (5%)
 - Week 14 – Delivery for Class Critique (6%)

2. Functional Leads

- Students identify personal strengths (related to project needs)
- Group reviews and assigns lead roles
- Each member is a lead in at least one functional area
- Lead has primary responsibility for:
 - determining requirements in that function
 - designing sub-tasks
 - delegating follow-up activities

Possible Lead Categories

- By Project Requirements:
 - Project Lead
 - Writer
 - Editor
 - Researcher
 - Interviewer
- By Functions:
 - Finance / Accounting
 - Operations
 - Marketing / Sales
 - Information Systems

3. Ongoing Peer Evaluations

- 40% of project points allocated to peer evaluations to encourage active and positive contributions to group
 - Incorporates peer pressure in affecting / modifying behaviors
 - Groups can “fail” a member by awarding 0 points in the peer evaluations.
 - Scoring system rewards balanced participation
 - Instructor “default” has a peer evaluation at each checkpoint

Peer Eval Process - 1

- At each checkpoint, group members can turn in a peer evaluation form
 - Scoring based on “Divide the Pie” (distribute 100 total points to group members – not to self)
 - Highest and lowest scores dropped for each student to help avoid skewing
 - Points converted to Percentage (%) Remaining scores divided by highest score to find individual score % (max score is 100%)
 - Student only sees final score Individual peer ratings only seen by instructor, unless group members decide to share the evaluations

Unbalanced / Conflicts

GroupProjectEval.xls											
	A	B	C	D	E	F	G	H	I	J	K
		Evals from Bob	Evals from Sally	Evals from Joe	Evals from Cathy	Sum	Min	Max	Adjusted Score	Highest Student Score	Final Percentages
1						85	0	12	73	105	69.52%
2	Bob's earned points										
3	Participation	10	8	4							
4	Organization	9	12	2							
5	Communication	10	7	3							
6	Production	9	11	0							
7	Sally's earned points					128	8	15	105		100.00%
8	Participation	10		9	11						
9	Organization	8		8	15						
10	Communication	10		11	12						
11	Production	10		9	15						
12	Joe's earned points					112	6	10	84		89.52%
13	Participation	9	8		10						
14	Organization	10	9		9						
15	Communication	10	9		10						
16	Production	10	9		10						
17	Cathy's earned points					75	5	8	62		59.08%
18	Participation	6	7	8							
19	Organization	7	7	5							
20	Communication	5	6	7							
21	Production	5	7	5							
22											
23											
24											

Well-Functioning Group

GroupProjectEval.xls											
	A	B	C	D	E	F	G	H	I	J	K
		Evals from Bob	Evals from Sally	Evals from Joe	Evals from Cathy	Sum	Min	Max	Adjusted Score	Highest Student Score	Final Percentages
1						83	5	10	79	91	86.71%
2	Bob's earned points										
3	Participation	8	8	5							
4	Organization	9	10	7							
5	Communication	7	7	6							
6	Production	9	10	7							
7	Sally's earned points					109	8	10	91		100.00%
8	Participation	10		9	10						
9	Organization	8		8	10						
10	Communication	8		8	9						
11	Production	10		9	10						
12	Joe's earned points					107	8	10	89		97.80%
13	Participation	9	8		10						
14	Organization	10	9		8						
15	Communication	9	9		10						
16	Production	8	9		8						
17	Cathy's earned points					91	6	10	75		82.42%
18	Participation	6	9	8							
19	Organization	7	7	7							
20	Communication	8	9	10							
21	Production	7	7	6							
22											
23											
24											

Equal Contributions

	A	B	C	D	E	F	G	H	I	J	K
		Evals from Bob	Evals from Sally	Evals from Joe	Evals from Cathy	Sum	Min	Max	Adjusted Score	Highest Student Score	Final Percentages
1											
2	Bob's earned points					92	7	8	77	77	100.00%
3	Participation		7	8	8						
4	Organization		7	8	8						
5	Communication		7	8	8						
6	Production		7	8	8						
7	Sally's earned points					92	7	8	77		100.00%
8	Participation	8		7	8						
9	Organization	8		7	8						
10	Communication	8		7	8						
11	Production	8		7	8						
12	Joe's earned points					92	7	8	77		100.00%
13	Participation	8	8		7						
14	Organization	8	8		7						
15	Communication	8	8		7						
16	Production	8	8		7						
17	Cathy's earned points					92	7	8	77		100.00%
18	Participation	7	8	8							
19	Organization	7	8	8							
20	Communication	7	8	8							
21	Production	7	8	8							
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Peer Eval Process - 2

- Groups can create their own peer grading rubric and peer review / critique cycles
- Groups that do not create their own rubric must use instructor's sample and timeframes

Peer Eval Process – 3
(instructor default)

- **Section 1 – Participation: (25 points)**
meaningfully contributes to group discussion and group decision-making by providing significant and appropriate input, independently explores/researches and reports on issues that might impact project, and is well prepared at group meetings including bringing all required materials and resources for agenda items
- **Section 2 – Organization: (25 points)**
positively influences the planning and managing of project including location of resources and maintaining professional standards in work product, and shares leadership and decision-making responsibilities
- **Section 3 – Communication: (25 points)**
courteous, polite, and supportive of group members, and is honest and open about skills, work-load, and ability to maintain deadlines
- **Section 4 – Production: (25 points)**
assumes duties and tasks suitable to abilities, assists team members catch-up on deadlines, produces error-free professional quality materials, and helps ensure that work is completed on or before agreed upon deadlines

4. Grading Rubrics to Clarify Expectations

- 40% of Project Points allocated by instructor assessment using very high standards
- Expectations are high, but not “perfect”
Rubric categories indicate expectations that do not require perfection, but encourage it
- 3 levels of achievement
 - Fails to meet expectation: 0%
 - Meets but does not exceed expectation: 50%
 - Exceeds expectation: 100%

Examples of Instructor Assessment

- **Writing Mechanics**
Project documents have 3 or fewer grammar, spelling, and punctuation errors, and that formatting of documents meet requirements for project.
- **Project Research**
Research and related documentation has sufficient breadth and depth to meet professional standards for finished deliverables. At least 10 documents from credible sources cited within project.

Instructor Assessment - 2

- **Organization and Structure**
Project is clearly organized and includes a clear introduction, a overview of the project (abstract), and a logical sequence of information in other sections. Requirements include table of contents, appropriate appendixes, bibliography, and glossary of terms and acronyms.
- **Appropriate**
Project materials are developed in a level of language appropriate for the intended audience, utilizing appropriate terms and formulas suitable to that industry. In formal research documents, a Flesch-Kincaid Grade Level rating of 11 or higher is expected (as found in Microsoft Word > Tools > Spelling & Grammar).

Instructor Assessment - 3

- **Logic and Conclusions**
Project logically and sufficiently addresses the needs of the intended audience while addressing and countering obvious objections or concerns. Conclusions are properly supported and realistic. Expectation requires that any concerns raised during Expert Check are adequately addressed.
- **Learning Objectives**
Project clearly demonstrates the incorporation of all course concepts and principles suitable to the project and meets stated learning objectives for assignment. Expectation is to meaningfully reference and address each learning objective at least once within the contents of the project.

Instructor Assessment - 4

- **Professional**
Project deliverables include appropriate graphics, charts, illustrations, and diagrams suitable to a professional presentation. Expectation is at least one visual for each 500 words of content.
- **Understanding**
Individual team members are well informed about all aspects of the project and can explain the work and research completed by teammates. Expectation is that any team member can field and answer any questions about project.

Instructor Assessment - 5

- **Defense**
Team is able to adapt to the audience and immediately and sufficiently answer questions and concerns of audience members / classmates. Expectation is that presenters remains persuasive rather than confrontational or dismissive.
- **Creativity**
Project final form uses creative presentation of information or creative and non-intuitive solution to problem. Expectation is that presentation contains graphics, audio, video, or other non-text elements to represent processes or structures.

Final Instructor Assessment – Ex 1

Criteria	Not Met	Met	Exceeds	
Writing Mechanics	0			80 pts x 40%
Project Research			10	
Organization & Structure			10	
Appropriate		5		Max proj. pts 32 +60 =92%
Logic and Conclusions			10	
Learning Objectives			10	
Professional			10	
Understanding			10	
Defense		5		
Creativity			10	

Final Instructor Assessment – Ex 2

Criteria	Not Met	Met	Exceeds	
Writing Mechanics		5		50pts x 40%
Project Research		5		
Organization & Structure		5		
Appropriate		5		Max proj. pts 20 +60 =80%
Logic and Conclusions		5		
Learning Objectives		5		
Professional		5		
Understanding		5		
Defense		5		
Creativity		5		

Summary of Project Grading

Grade Item	Individually Graded	Group Graded
Deadlines 2%, 3%, 4%, 5%, 6% "All or Nothing" points		20%
Instructor Assessment By Rubric		40%
Peer Assessment 5 at 8% each	40%	

5. Presentation to Other Groups

- Group does "reality check" with outside expert
- Group presents project, paper, or design to whole class for critique.
Encourages setting and achieving high standards in a semi-competitive environment.
- Audience is encouraged to challenge group with questions on assumptions and conclusions to have group defend plan and process
- Participants gauge their own success relative to that of other groups

Possible Benefits

- Addresses procrastination
- Encourages high standards
- Promotes equal distribution of efforts
- Clarifies instructor expectations
- Provides feedback mechanisms

Comments thus far?



Small group activity

- Discuss strategies and policies that have succeeded and failed in your own group project experiences (either as instructor or student)
- Brainstorm ideas to actively engage students in their projects
- Agree upon 5-7 practical hints / policies (write these down to be photographed)
- Select a spokesperson to share ideas with class
- Large group discussion: questions about and critiques of suggestions

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- For more information, contact: James Falkofske